

Damp-Proofing

Damp Protection of the Building Envelope

IMPORTANT

Every building must be designed and constructed in such a way that there will not be a threat to the building or the health of the occupants as a result of moisture from precipitation penetrating to the inner face of the building.
SR Mandatory 3.10

Products and systems are for use in masonry construction designed in accordance with the BS EN series of Eurocodes.

PD 6697:2010 states guidance on structural considerations affecting the selection of DPCs, trays and flashings is given in BS 8215.

However, please be aware we identified and drew attention to errors in the original BS 8215:1991 on pages 7 & 8 relating to stepped DPC provision in gables. Importantly the designs within this section avoid those shortcomings and have been awarded European Technical Approval / LABC product approval.

PD 6697:2010 also makes reference to a DPC within a parapet wall sometimes stepping inwardly and we believe this to be in error as such construction is susceptible to water ingress. Our design for parapet walls avoids this shortcoming and removes the associated risk.

Products and systems are subject to a performance undertaking for the benefit of Architect, Builder and Client.

Type B

Vertical DPC for introduction into existing masonry skins

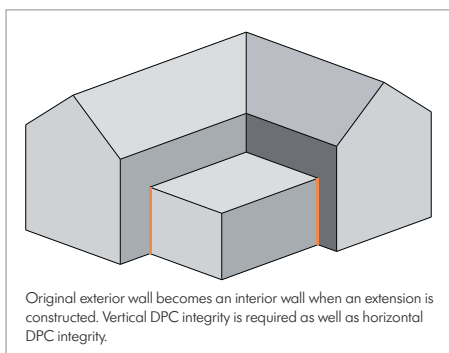
- Introduces vertical DPC element
- Suitable for traditional or timber frame construction
- Requires minimal masonry slot cutting to install
- Ensures regulation compliance when using profiles
- Shape suitable for mid-cavity and frame edge positioning



Vertical DPC for introduction into existing masonry skins

USE

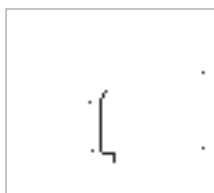
To introduce a vertical DPC element to an existing exterior skin of a cavity wall where its status changes from exterior to interior by virtue of a porch or similar being attached.



Original exterior wall becomes an interior wall when an extension is constructed. Vertical DPC integrity is required as well as horizontal DPC integrity.

SOLUTION

The Type B is a semi-rigid vertical DPC that may be introduced into an existing skin following mechanical cutting of the masonry to provide a vertical slot 4-6mm wide. The Type B establishes a permanent DPC presence isolating the existing skin externally beyond the vertical point it becomes internal. This product is particularly appropriate where the cavity is not maintained at the point the new porch is attached (no T-junction cavity continuity). This is commonly the status where metal profile links, are secured to the original



Type B between leaves of cavity wall.

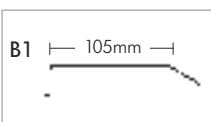


Type B with door-frame

exterior skin to receive the abutting masonry. Without the Type B inserted adjacent to such profile links dampness can directly permeate inwardly tracking behind the profiles.

INSULATED VERSION

A folded rigid DPC version of the Type B with sandwiched compressible insulation is now available. This requires a wider slot of 10mm to be cut in the masonry.



HOW TO ORDER

Standard sizes: state B1, B2 or B3 and number required.

Bespoke sizes: provide dimensions of profile required.

SPECIFICATION WORDING

Type B Vertical DPC / Insulated Vertical DPC by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Introduce Type B into pre-cut vertical slot within external skin at attachment junctions.

Metres run measured vertically.....

Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Type B

CAVITY WIDTHS ACCOMMODATED

All - width does not affect functionality
2440mm standard lengths

DIMENSIONS

B standard and B Insulated suit standard 105mm skin. Size 130mm x 2400mm

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

N/A

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

For use in single storey applications

ARRESTED WATER EVACUATION

N/A - no horizontal arrestment

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 - 0.17

MATERIAL

Polypropylene DPC
Mineral rock wool insulation

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes with compliant insulation types

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Available with optional insulation bonded to one surface to introduce thermal separation. Requires wider cut of masonry. For horizontal arrestment see Type E Cavitytray.



DESIGNERS' COMMENTS

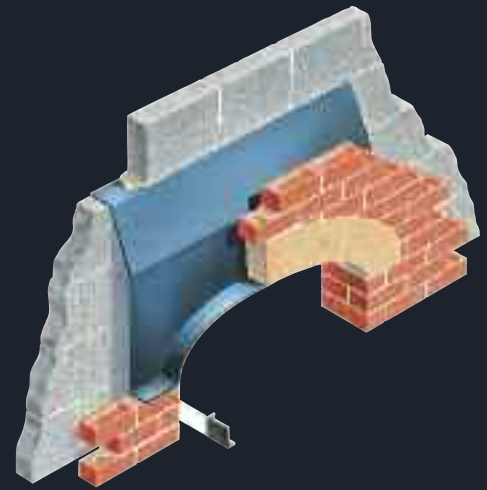
Water soaking into masonry does not discriminate and tracks in all directions. The Building Research Establishment states: 'ensure building attachment vertical DPC is provided'.

The Type B Cavitytray cannot act as a continuous cavity at a T junction where a building attaches but it can replicate functionality in preventing wet transmission.

Type BA

Moulded DPC Cavitrays Barrier Arch protection for shaped openings

- Available in different arch styles and design
- Provides matching DPC element to arch masonry
- Permits traditional centring use
- Traditional or timber frame construction
- Format can accommodate very wide openings



USE

To protect arch openings of all styles and dimensions.

SOLUTION

The Type BA Barrier Arch is a ready-moulded DPC shaped to harmonise with traditional arch construction and protect the opening against damp ingress. Offered on a swift bespoke manufacturing basis, arches are available in all styles and dimensions.



Type BA Barrier Arches can be supplied with side links to integrate with any cavitrays or arresting barrier protecting an adjacent dentil or feature course.

The Type BA barrier arch is incorporated within the cavity wall with its base section positioned on traditional centring or on the curved supporting lintel – whichever is applicable. The top of the Type BA is normally returned into the inner skin where traditional masonry is used, or with some styles a self-supporting option that does not build in is offered. In the case of timber frame

construction the top is secured against the inner skin using compatible Cavistrap.

Openings with extensive width or rise requirements necessitate the Barrier Arch being supplied in sections to aid manufacture, transportation and placement.

HOW TO ORDER

Supply opening details and ideally an accompanying elevation extract with dimensions for immediate attention.

SPECIFICATION WORDING

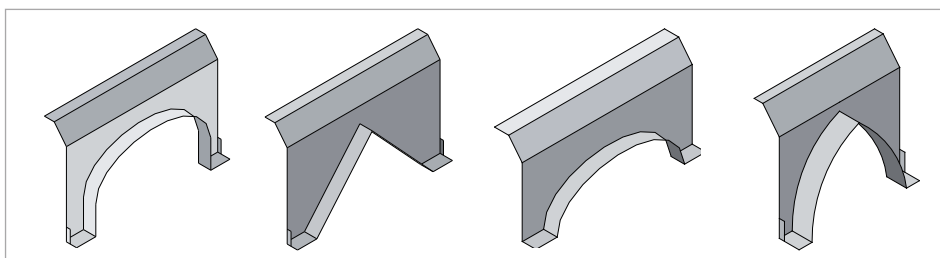
Type BA Barrier Arch by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Bespoke as schedule or state size of each BA required.

Request liability/conformity document upon completion.



Where an arched opening has a decorative stone surround, the Type BA is widened so water evacuation via Caviweeps can take place within the adjoining masonry.



DESIGNERS' COMMENTS

There are added complications of damp-proofing the arrangement between inner and outer skins when arch openings of any style are constructed - as originally identified within BS 5628. Conventional DPC cannot readily be sloped outwards and simultaneously curved to follow the radius. The ready-shaped Type BA barrier arch ensures compatibility and functionality.

PRODUCT NAME - GROUP

Type BA

CAVITY WIDTHS ACCOMMODATED

50mm – 300mm cavity

DIMENSIONS

Up to 2400mm o/a in one piece

SIZE LIMITATIONS

No limit in connecting sections

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Possible pending opening style/dimensions

MASONRY SKIN STYLES

No known limitation

CURVED WALL ON PLAN APPLICATIONS

Yes possible – see Curved Wall entries

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweep choice supplied

THERMAL TRANSMISSION

Negligible - calculated non-conductive

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Does not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Advise adjacent elevation features to determine whether elevation will benefit arrestment provision



Type BWVC

Bay Window Vertical Cavity

- Ready shaped vertical interfacing
- Prevents horizontal damp ingress
- Not visible once installed



USE

To prevent wet external skin masonry at the side of a bay window from conveying dampness inwardly via the unprotected courses separating the higher (bay roof) tray arrestment level from the lower (bay support) lintel level.

SOLUTION

The Type BWVC is a preformed DPC cavity that vertically connects two levels within the same masonry skin without adversely interrupting bonding or coursing. Its presence prevents horizontal damp transference. It is extensively used in bay window construction where the level of the roof intersection and that of the support lintel spanning the bay is not shared and separating courses exist between them.

Type BWVC units are handed and available to suit brickwork / block work coursings. Units are introduced at each end of the lintel and provide permanent DPC connection upwardly to the lowest cavity tray at roof intersection level. Wind-driven rain saturating masonry to the sides of the bay is thus prevented from continuing soaking inwardly where the exterior skin becomes an internal skin inside the bay.

SIZES

This product is manufactured in a range of heights and combination of coursings. It is supplied with accompanying caviweeps and stopends. When used within installations of tray types X, G and C it is included within our warranted performance undertaking.

HOW TO ORDER

We will identify the most appropriate shape and size to suit your bay construction. Our take-off service will calculate and quote for all your requirements.

SPECIFICATION WORDING

Bay Window Vertical Cavity to interface between bay cavity trays and lintel. Manufacturer: Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769) Size as scheduled. Request liability/conformity document upon completion.



The extensive fascia height means there are a considerable number of masonry courses between the bay support lintel and the higher roof/tray intersection level. To prevent damp permeating between the two it is necessary to incorporate a vertical link whilst maintaining coursing and bond



ONSITE INSIGHT
see page 19

DESIGNERS' COMMENTS

All masonry rising above and around a bay will act as an absorption area via which rain water will penetrate and gravitate. Rain also washes down and across a masonry surface aided by directional wind. Absorption testing standards do not replicate the severity of rain experienced in the UK. (Example: BS 4315 tests by spraying water on to masonry for one minute at half hourly intervals for 48 hours. This equates to 96 minutes of rain spread over two days with consistent drying periods between each spray). In comparison the UK weather experienced during the Winter of 2013/14 subjected structures to continuously long periods of wind-accompanied rain saturation and our recommendations to consider such conditions and incorporate vertical arrestment to prevent lateral transference were vindicated. As bay window fascias and facades increase in depth, so does the susceptibility to horizontal wet transference. Product not readily visible once installed.

PRODUCT NAME

Type BWVC Bay Window Vertical Cavity

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 400mm

DIMENSIONS

Variable to suit lintel and tray placement

Length \geq 450mm.

Height \geq 825mm.

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Petheleyne DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

Yes

SHAPE CONSIDERATIONS

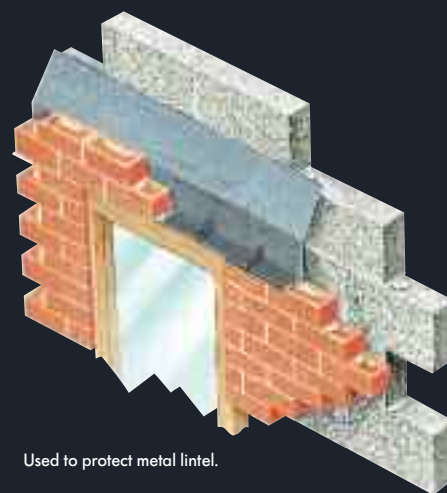
Rise of Type BWVC supplied to match coursing dimensions



Type C

Preformed DPC Cavitrays for use with lintels over openings in cavity walls

- Ready-shaped DPC trays for all lintel styles
- Wastage and inaccurate site fabrication eliminated
- Ensures consistent build details and regulation compliance
- Unobstructed cavity compartment area
- Traditional or timber frame construction
- Accurate cost and stock control



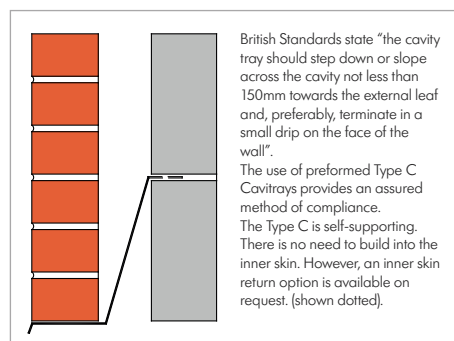
Used to protect metal lintel.

USE

To ensure openings in cavity walls are adequately protected against damp penetration and appropriately shaped to harmonise with whatever style of lintel is deployed. To ensure the compatibility of the horizontal protection with any adjacent vertical closing.

SOLUTION

Type C Cavitrays are preformed horizontal DPC trays designed to be used with all styles of lintel. Trays provide harmonising yet independent protection against damp. Each tray is manufactured from solid DPC material shaped to suit the lintel styles and lintel arrangements over the opening.



Being preformed eliminates the danger of misplacement, sagging and installation deviances associated with conventional roll material. It also means every opening is uniformly addressed, with assured functionality. The necessity to cut and fabricate on site is eliminated, as is the associated wastage. Type C Cavitrays can be scheduled alongside the lintel schedule, making purchasing and stock control easy.

The shape and dimensions in which Type C Cavitrays are available is almost unlimited. Examples are given on subsequent pages.

In addition to the shape options, the specifier may select whether the top of the tray returns into the inner skin or terminates against it. Traditionally DPCs have required building-in for support. However, an added advantage of using a robust semi-rigid preformed tray is that it supports itself and maintains profile (tray is tensioned against the inner skin). The specifier may select which option is preferred.

The overall length of each tray exceeds the opening dimension and projects into the masonry either side of the opening. The projection is 300mm each side unless otherwise requested. This exceeds the minimum dimension demanded by the NHBC and provides additional shelter and protection of the reveal vertical closing arrangement. It also increases the convenience of perp joint locations to accommodate the obligatory stopend each end of the cavitrays. Where our Cavi Closers are used to vertically close the reveal, our performance warranty embraces both aspects – horizontal and vertical.

Available to order with Type C cavitrays are Type L Stopends. These have an integral butyl base that secure the Stopend in position on the tray to coincide with the nearest perp joint towards the tray end. Type L Stopends prevent the water arrested by the tray from discharging into the cavity. Instead the arrested water is evacuated out of the masonry via Caviweeps. It is usual to incorporate a minimum of two* Caviweeps per opening, located within separate perp joints. Stopends and Caviweeps never share a perp joint – they are always apart. * Frequency can be increased to suit width of openings. Always locate in separate prep joints – stopends and Caviweeps never share a prep joint.

PRODUCT NAME - GROUP

Type C

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 400mm

DIMENSIONS

All dimensions and shapes variable. Popular profiles illustrated

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

See Type E entry

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

No minimum

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Lip projections to opening only with set back over-sailing to ends available as no-cost option

DESIGNERS' COMMENTS

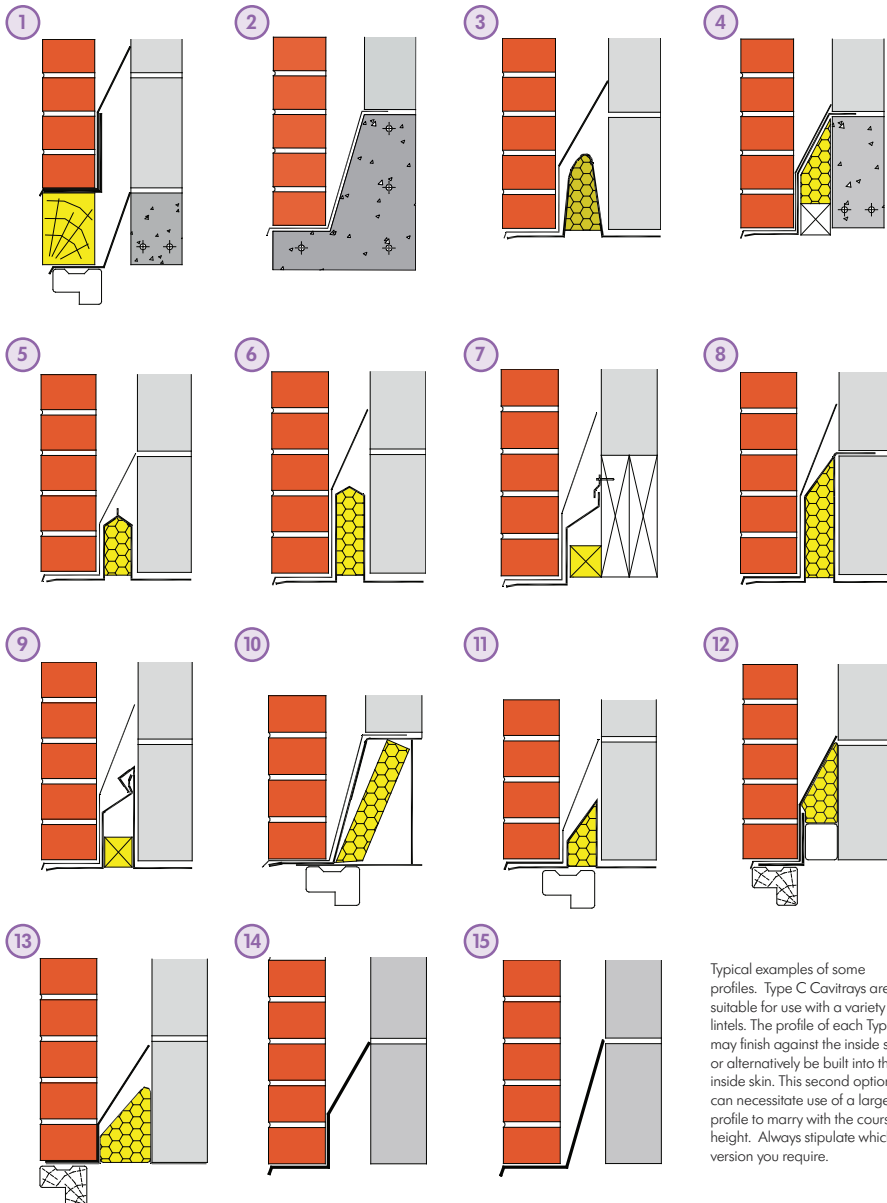
NHBC Standards (External Masonry Walls 6.1 D6 b) states a tray should provide drip protection to door and window heads. Uniformity and consistency of such a requirement can be difficult to achieve using soft roll DPC but with a preformed Type C Cavitrays the angle and dimensions of any lip can be specified and maintained.



Type C (continued)

Preformed DPC Cavitrays for use with lintels over openings in cavity walls

- Ready-shaped DPC trays for all lintel styles
- Wastage and inaccurate site fabrication eliminated
- Ensures consistent build details and regulation compliance
- Unobstructed cavity compartment area
- Traditional or timber frame construction
- Accurate cost and stock control



Typical examples of some profiles. Type C Cavitrays are suitable for use with a variety of lintels. The profile of each Type C may finish against the inside skin, or alternatively be built into the inside skin. This second option can necessitate use of a larger profile to marry with the course height. Always stipulate which version you require.

PROFILE CHOICE

Three ways to select your best profile

Type C cavitrays can be supplied in an almost unlimited choice of shapes and dimensions. Adjacent are examples of popular profiles. You may determine the best profile to suit your project in several ways.

1. Ask us. Forward drawings of the project and we will identify the optimum profile and prepare a schedule / cost for your consideration.
2. You tell us by choosing which of the adjacent profiles suits your project.
3. Provide a drawing or sketch of what you require with dimensions.

DESIGNERS' COMMENTS

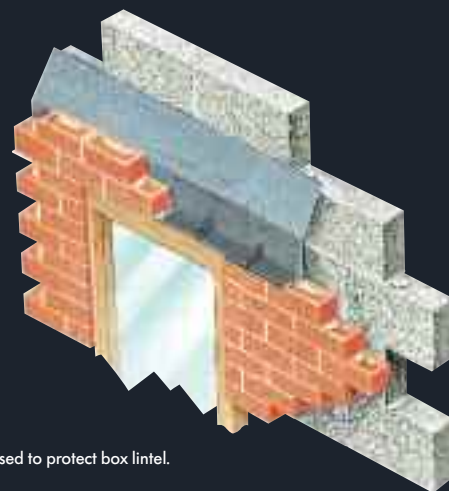
Trays must step down towards the external leaf not less than 150mm. Numerous lintels also act as a DPC but where these are less than 150mm in height (commonly many are 140mm) they do not technically satisfy the damp protection requirements demanded in Building Regulations Part C and British Standards unless accompanied with additional DPC protection providing the minimum dimension stipulated.



Type C (continued)

Preformed DPC Cavitrays for use with lintels over openings in cavity walls

- Ready-shaped DPC trays for all lintel styles
- Wastage and inaccurate site fabrication eliminated
- Ensures consistent build details and regulation compliance
- Unobstructed cavity compartment area
- Traditional or timber frame construction
- Accurate cost and stock control



Used to protect box lintel.

BUILDING IN

Using Type C cavitrays - Accompanying Requirements

Stopends

Type L lintel stopends should be applied at each end of the Type C cavitrays. Stopends prevent arrested water from discharging into the cavity. (NHBC 6.1 D6 b) Supplied in pairs, stopends are positioned through perp joints so do not visually affect the masonry. See Type L page entry for details

Weeps

Caviweeps should be provided to permit arrested water to discharge out of the wall. Two caviweeps minimum per opening is the usual requirement. (NHBC 6.1 D6 b). Caviweeps are located through perp joints. Select from different styles, in a colour to either merge with the masonry or with the mortar. See Caviweep-vent pages for details..

HOW TO ORDER

Select a popular profile or provide dimensions or drawings to permit us to match your requirements with an appropriate design.

SPECIFICATION WORDING

Type C Cavitrays to all lintels by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

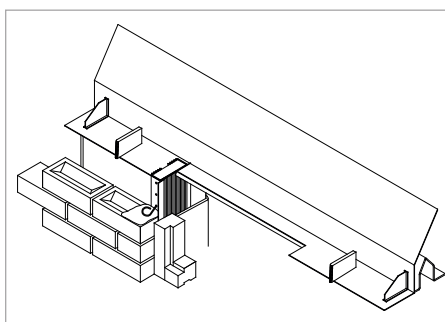
Incorporate to all openings.

Measured run in metres or state number of openings and widths.

Type L Stopends xnumber

Type.....Caviweeps x.....number

Request liability/conformity document upon completion.



Self-supporting tray is independent of the inner skin – not affected if courses drift out of level and do not harmonise with each other. Tray extends beyond normal finishing point – providing more shelter and protection of the vertical closing arrangement and guarding against arrested water gravitating around reveal.

Extended ends provide perp joint opportunities to receive stopend.

NHBC External Masonry Walls 6.1. D6. B that states a tray should provide drip protection to door and window heads. The Type C tray turn-down lip against the frame provides this weathering finish. (in a uniform and consistent manner not possible with soft roll DPC) Cavitrays base extends forward of frame (lip) line – damp arrestment width optimised both sides of opening.

Without an accompanying protective tray this lintel installation fails to comply with UK Building Regulations and European Standards. Protection rising 150mm within the cavity is required. It should also overhang the lintel ends sufficiently to provide shelter to the reveal closing arrangement and ideally accommodate stopend and weep discharge provision. Note the block work inner skin does not offer an ideal course in which to support conventional (floppy) DPC. Consequently more material is required.

In contrast, preformed Type C Cavitrays overcome such problems. Type C trays are ready-shaped and supplied in lengths to harmonise with the lintel schedule. Type C Cavitrays are also self-supporting. Compatible stopends and weeps form part of the compliant answer for all common openings in cavity walls.



PRODUCT NAME - GROUP

Type C

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 400mm

DIMENSIONS

All dimensions and shapes variable. Popular profiles illustrated

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

See Type E entry

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

No minimum

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Lip projections to opening only with set back over-sailing to ends available as no-cost option



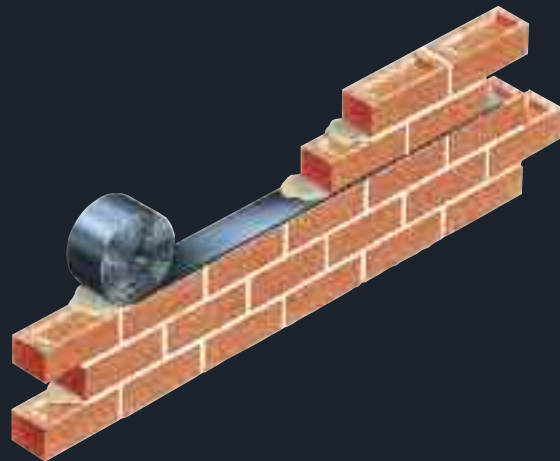
DESIGNERS' COMMENTS

The European Standard for lintels: BS EN 845 qualifies corrosion protection required in any individual application, making reference to "the degree of exposure and climatic conditions." We recommend the use of an accompanying Type C Cavitrays at all times to comply with the new European Standard, which is not specific as to where or when such exposure conditions apply. Specifying of Type C Cavitrays at all times to ensure compliance is accordingly recommended.

Caviroll

Premium DPC

- British Standards general purpose roll DPC
- Durable, tough and puncture resistant
- Wide temperature scale flexibility
- Gripgrid surface
- Impermeable and homogeneous

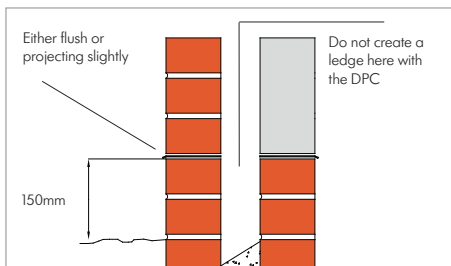


USE

General purpose roll DPC designed to prevent the passage of moisture in brick and block from external sources.

INTRODUCTION

Caviroll is a homogeneous polythene roll DPC conforming with the requirements of BS 6515. Promotes excellent tensile strength, will not extrude under normal load conditions and retains flexibility through a temperature range of -50° to +80° centigrade.



Both sides of Caviroll are embossed with a gripgrid surface to aid adhesion with mortar. Caviroll satisfies the specification requirement within table 1 of PD 6697:2010 for a flexible low density Polythene DPC for use within cavity walls in most domestic build applications.

HOW TO ORDER

State roll width and numbers of rolls required.

SPECIFICATION WORDING

Caviroll flexible DPC by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Installation to be in accordance with best practice recognising relevant Eurocodes and applicable standards. Metres run.....

Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Caviroll

CAVITY WIDTHS ACCOMMODATED

All – width does not affect functionality

DIMENSIONS IN ROLLS OF 30M

100mm x 30m
150mm x 30m
225mm x 30m
300mm x 30m
375mm x 30m
450mm x 30m
600mm x 30m
900mm x 30m

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes most domestic applications

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes most domestic applications

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

Not suitable if low compressive strength

MATERIAL

Polythene

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes

CAD DOWNLOADS

No

DESIGN CONSIDERATIONS

If horizontal arrestment over lintel is intended, use Type C Cavitray.

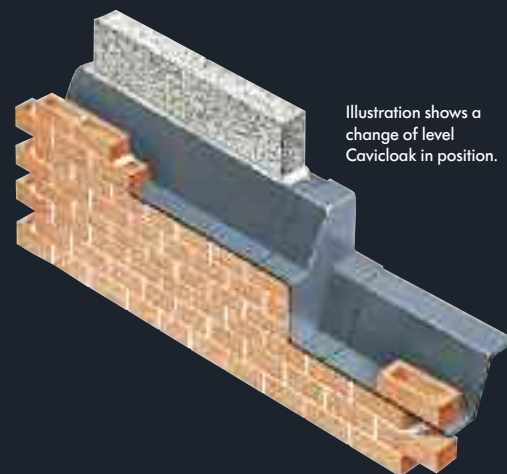


DESIGNERS' COMMENTS

DPC manufactured to BS 6515 should not be used where compressive strength is low such as under copings and similar. Always lay on smooth mortar and bed subsequent masonry on mortar. Classified as non-hazardous and is chemically inert.

Cavicloak

Preformed Damp Courses



- Ready-shaped modular DPC cloaks
- Modular components eliminate site fabrication variances
- Accurate scheduling and stock control
- Upstand termination option (self-supporting or return into inner skin)
- Ready to use - no wastage

USE

To provide damp course protection that is shaped three-dimensionally and able to protect and service structural elements, level changes and projections.

SOLUTION

Cavicloaks are preformed moulded DPC units for use in cavity walls for use where uninterrupted protection is required upwardly and inwardly which calls for provision to be three-dimensional.

Moulded from solid DPC Polypropylene, Cavicloaks are self-supporting and hold to profile. Cavicloaks offer flexibility without sagging or distorting. Accordingly additional support is not required when overlapping joints in standard applications.

SIZES

Cavicloaks are supplied in a wide range of shapes and running lengths to suit a wide range of cavity widths. A bespoke service also operates to accommodate special requirements and customers' specific needs.

When selecting or ordering Cavicloaks, there is also the option of whether the top of the cloak is returned into the inner leaf as illustrated, or terminates against it. It is the choice of the specifier and attention is drawn to the Designers' Comments that highlight the considerations.

DESIGNERS' COMMENTS

When used at ground level, both skins of a cavity wall are level with each other. Building the Cavicloak into the inner skin at this level is the usual choice because a support course is normally at an appropriate height and readily available. As both skins are raised they can drift out of level – especially if each is being built using a different masonry module. In such instances as higher levels of the wall are reached, the specifier may elect for self-supporting Cavicloaks requiring no inner skin support. If intermediate floor levels or similar masonry skin alignment opportunities exist, the specifier commonly has both choices available. Cavicloaks at ground level can dual-function, arresting upwardly (rising) damp and also downwardly moving (wall penetrating) water, thus addressing PD 6697:2010 - recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2. Always provide a water evacuation route (Caviweep) even if the wall is rendered, to comply with 6.2.7.7.1 of PD 6697:2010 that states rain will penetrate and run down the inside face of a wall rendered externally.

Long lengths to run between cloaks supplied in matching profile lengths of 2440mm unless otherwise requested.

Cavicloaks provide a reliable alternative to cutting and fabricating roll DPC on site, reducing time, wastage and easing procurement and stock control.



Telescopic adjustable ventilators (Type TAV) (to ventilate underfloor areas) have been built into the exterior cavity wall prior to bedding of the perimeter Cavicloak. Each ventilator has been extended in height to take advantage of the Cavicloak bedding level coinciding above it and providing protection. This approach removes the necessity to individually protect each ventilator at a lower course level.

HOW TO ORDER

We will take-off and schedule your requirements. Alternatively, state wall dimensions + profile required + number of angles and steps.

SPECIFICATION WORDING

Cavicloaks by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Self-supporting / build-in profile. Sizes as schedule prepared by Cavity Trays Ltd.

Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Cavicloak

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 400mm

DIMENSIONS

To order – see popular styles illustrated

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes self-supporting or Cavistrap option

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

JOINTING METHOD

Lap 150mm & sealing strip jointing

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Insulation should not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Curved applications - see separate entry





ONSITE INSIGHT

Lateral Transference

The horizontal movement of water within porous material(s) due to the forces of adhesion, cohesion, and surface tension. Lateral transference describes wet ingress progressing 'sideways' and in so doing permeating parts of a structure that are intended to remain dry. The traditional bay window is a good example of part of a building susceptible to lateral transference.

As bay fascia/façade heights increase, so do the number of courses between the bay roof intersection level and the bay support lintel level. The greater the vertical distance between them, the greater the bay susceptibility to lateral transference because the masonry skin on the outside of the bay runs uninterrupted onto the support lintel that is inside the bay. The construction permits a 'sideways soak'. Horizontal transference between intersection level and lintel level can be prevented by building in a preformed DPC cavity tray that vertically connects two levels within the same masonry skin without adversely interrupting bonding or coursing. Its presence prevents horizontal damp transference.

Units are handed and available to suit brickwork and block work coursings. When introduced at each end of the lintel they provide an effectively shaped permanent DPC connection upwardly to the lowest cavity tray at roof intersection level. Wind-driven rain saturating masonry to the sides of the bay is thus prevented from continuing soaking inwardly.

The Type BWVC (Bay Window Vertical Cavity) is a lateral transference prevention product and when used with approved tray types X, G or C, the Type BWVC forms part of a warranted performance system. Type BWVC.

Masonry can be more susceptible to wet saturation and transference than is often realised. Masonry tested to BS 4315 is often described as indicating 'very low levels of rates of rain penetration' but to comply with this Standard can involve spraying water on to masonry for one minute only, at half hourly intervals for 48 hours. This equates to 96 minutes spread over two days - with consistent drying periods between each spray. In comparison the UK weather experienced during the winter of 2013/14 subjected structures to continuously long periods of wind-accompanied saturating rain - with few intermittent drying opportunities. Structures should be built anticipating a realistic

meteorological scenario.



The masonry courses between the roof protection intersection level and the lower bay-support lintel level provide opportunity for wet to soak inwardly between the two.

Cavicloak (continued)

Preformed Damp Courses

- Ready-shaped modular DPC cloaks
- Modular components eliminate site fabrication variances
- Accurate scheduling and stock control
- Upstand termination option (self-supporting or return into inner skin)
- Ready to use - no wastage



*Illustration shows a change of level cavicloak that requires building into exterior skin only. (Upstand is self-supporting)

<p>1</p> <p>Balcony Cloak CC/BC/0570</p>	<p>2</p> <p>Column Cavicloak CC/C/090</p>	<p>3</p> <p>Column cloak CC/C/0400</p>	<p>4</p> <p>Column Cloak CC/C/0550</p>	<p>5</p> <p>Column Cloak (Supplied in two pieces) CC/CC/0270</p>
<p>9</p> <p>Type C/P with pipe projecting through cloak CC/CP/0360</p>	<p>10</p> <p>Change Profile / Corner Cloak CC/CPC/0590</p>	<p>11</p> <p>Change of Profile / Intersection Seal CC/CPC/0540</p>	<p>12</p> <p>Cloak around vertical vent sleeve CC/CS/0440 CC/CS/050</p>	<p>13</p> <p>Column / Windpost Cloak CC/CWP/0520</p>
<p>17</p> <p>Internal Angle CC/IC/0320</p>	<p>18</p> <p>Internal Angle CC/IC/0370</p>	<p>19</p> <p>Level Change CC/LC/0560</p>	<p>20</p> <p>Step down cloak (Small step) CC/LC/080</p>	<p>21</p> <p>Internal Corner / Column Cloak CC/ICC/0510</p>
<p>25</p> <p>Party Wall link cavicloak CC/PWL/0220</p>	<p>26</p> <p>Radon External Angle CC/RAD/EC/0260</p>	<p>27</p> <p>Radon Internal Angle CC/RAD/IC/0250</p>	<p>28</p> <p>Reveal Protection Cloak CC/RP/0600</p>	<p>29</p> <p>Threshold Cavicloak CC/S/060</p>
<p>33</p> <p>Stopend CC/SE/0160</p>	<p>34</p> <p>Stopend CC/SE/0410</p>	<p>35</p> <p>Change of Level / Change of Direction CC/SLIC/060</p>	<p>36</p> <p>Threshold Step Down Cloak CC/TS/0630</p>	<p>37</p> <p>Window Cill tray (Dependant on size) CC/UC/0350</p>

Cavicloak (continued)

Preformed Damp Courses

- Ready-shaped modular DPC cloaks
- Modular components eliminate site fabrication variances
- Accurate scheduling and stock control
- Upstand termination option (self-supporting or return into inner skin)
- Ready to use - no wastage

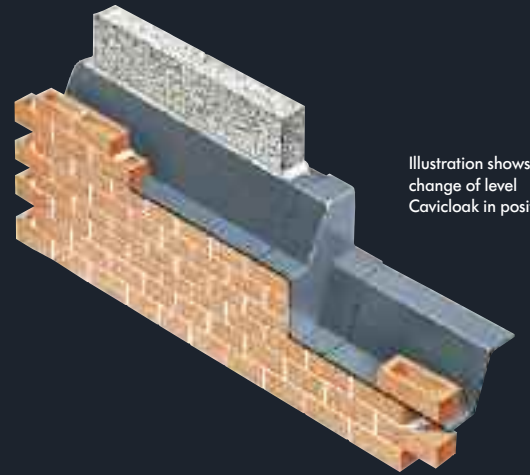
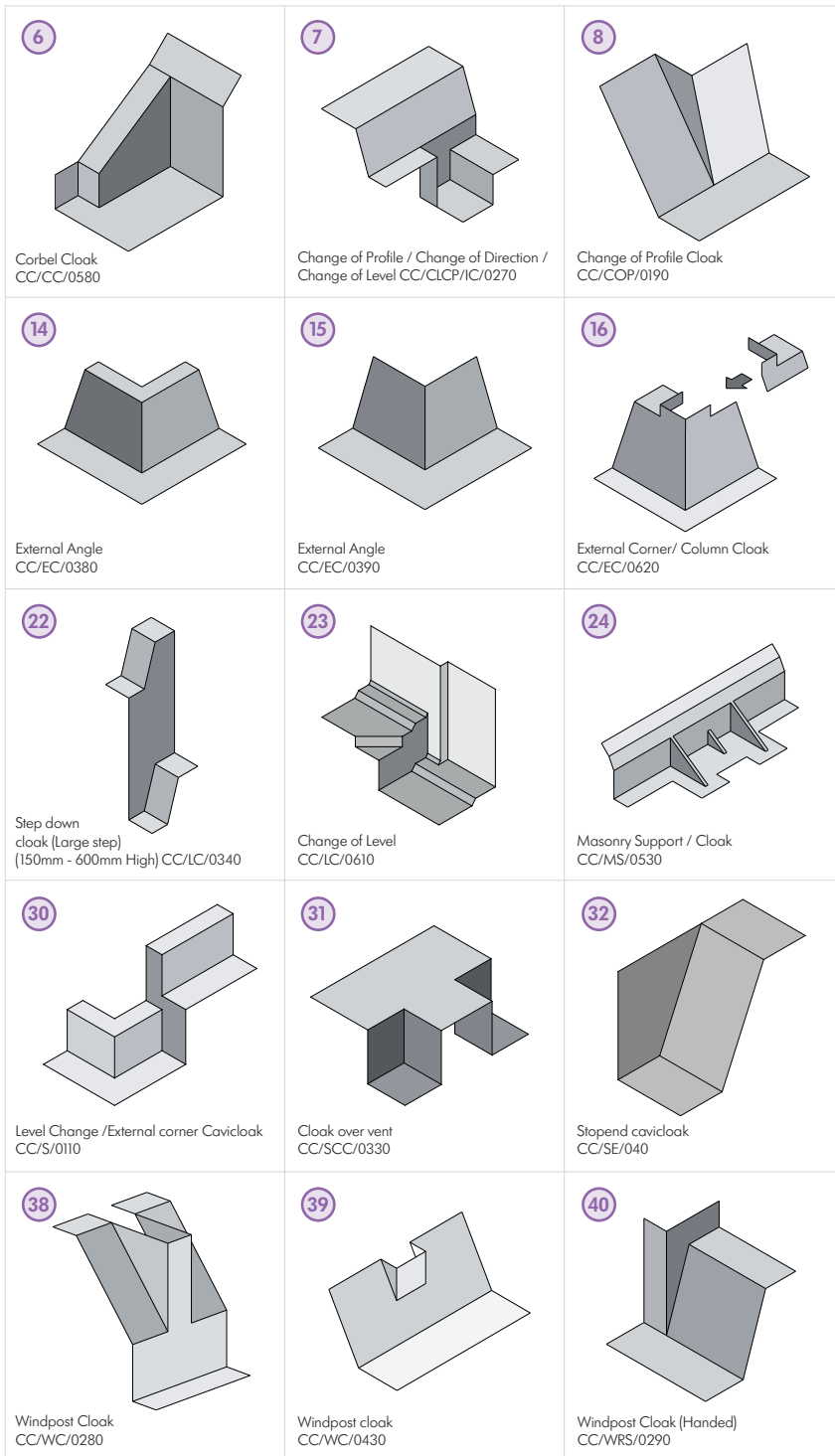


Illustration shows a change of level Cavicloak in position.



PRODUCT NAME - GROUP

Cavicloak

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 400mm

DIMENSIONS

To order – see popular styles illustrated

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes self-supporting or Cavistrap option

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

JOINTING METHOD

Lap 150mm & sealing strip jointing

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviseeps in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arresment

MAY BE USED IF CAVITY INSULATION PRESENT?

Insulation should not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Curved applications - see separate entry



Type CD

Cavity Dropcloaks

- DPC control independent of external masonry skin
- Uninterrupted structural bonding of outer skin
- Traditional and timber frame compatibility
- Available in all dimensions



USE

To protect a high level masonry feature that impinges a cavity without weakening or affecting the structural bonding of that feature.

To protect a conventionally shaped acoustic or fire cavity barrier from acting as a cavity-crossing bridge for penetrating water.



Cavity dropcloaks protect high-level dentil coursing and intermediate strings. The masonry bonding of the exterior skin is not interrupted. (1752)

SOLUTION

Type CD Cavity Dropcloaks are preformed DPC barriers built into the inner leaf only of a cavity wall. They isolate the inner leaf from the outer leaf where masonry impinges, horizontally steps or projects into the cavity. Type CD Dropcloaks can also prevent the top surface of a conventional cavity barrier acting as a bridge for penetrating water.

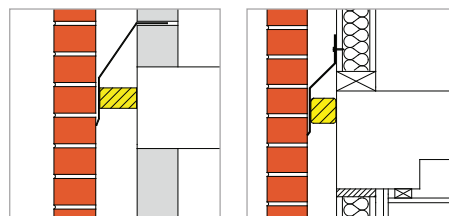
Where a masonry feature is at the top of a cavity wall, any horizontal interruption of the external skin masonry by DPC weakens the masonry mass. By isolating both skins using a Type CD Cavity Dropcloak supported at higher level on the inner skin, the structural bonding of the feature remains uninterrupted. Dropcloaks are available for use in both timber frame and traditional constructions.

SPECIFICATION WORDING

Type CD Cavity Dropcloaks by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Dropcloak dimensionsmm drop x metres run.....

Request liability/conformity document upon completion.



Where horizontal cavity stops or barriers are also incorporated to comply with Robust Details Part E, Dropcloaks prevent penetrating water tracking on the top surface of the barrier.

PRODUCT NAME - GROUP

Type CD Cavity Dropcloak

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 200mm

DIMENSIONS

2440mm lengths x 150 /200/250/300mm

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes Cavitytrap supported version

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Some – pending top of wall access

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

JOINTING METHOD

Lap 150mm & sealing strip jointing

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

N/A deflects to original path

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.16 average

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Insulation should not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Non-sheltered, open and dentil eaves closing can still deploy a fire/acoustic cavity barrier as the Type CD can cloak against damp without compromising bonding



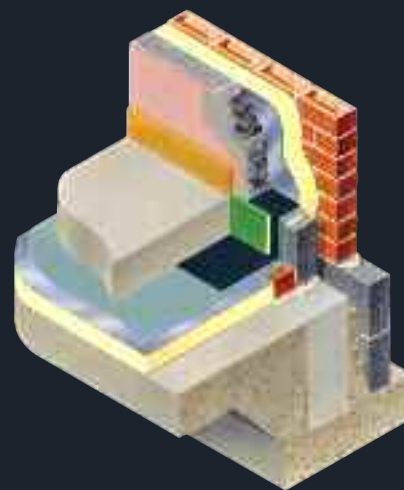
DESIGNERS' COMMENTS

Water penetrating an external skin can discharge off the furthest projection into a cavity. Consider introducing protection where a cavity is partially or fully filled if the inner face of the external skin inside steps inwardly or outwardly between ground and eaves level. Where cavity insulation is present but not installed uninterrupted for the full height of a gable, Dropcloaks can be used to provide protection as identified in PD 6697:2010 6.2.7.7.6 For aesthetic reasons, designers may sometimes include features which lead to increased local exposure of the masonry. As a result, the masonry will be more likely to become very wet or saturated, so increasing the risk of frost damage or disfiguration - 6.2.8.5.1.

Combination Edge Insulator

Insulating / Acoustic Barriers with DPC interfacing

- Provides inner skin DPC
- Uninterrupted vertical protection
- Integrates with oversite membrane
- Insulation cushion to perimeter



USE

Combination perimeter edge insulator for use where floors and walls meet to provide thermal, acoustic and DPC qualities

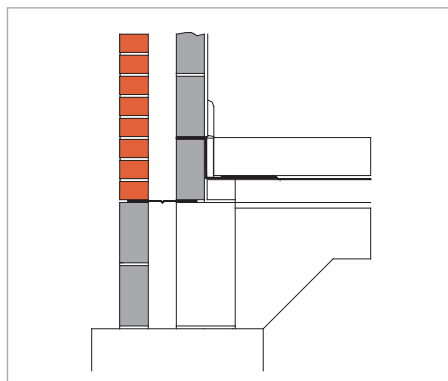
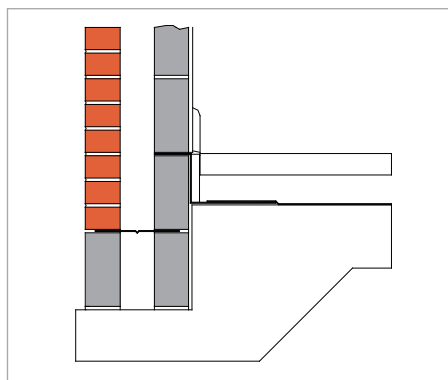
SOLUTION

Ground bearing slab construction commonly requires perimeter edge insulation at its junction with all walls. Similar requirements exist with other forms of construction, to prevent cold-bridging. By selecting an appropriate combination edge insulator, the thermal and acoustic arrangement can be accompanied by damp-protection, acting in addition to or as part of the ground floor DPM configuration. The semi-rigid DPC is preformed at 90° to maintain shape and placement and provide easy lapping and interfacing with any adjacent DPM. Thus barriers can be incorporated at screed level (above slab) or below slab level, pending the DPM configuration. This extends the construction options available to meet requirements of Building Regulations and Robust Details where the overall resistance of the edge is required to achieve 3.04m²K/W minimum



Combination Edge Barriers can be supplied in a range of sizes in the following two formats:

1. DPC Edge barrier with attached encapsulated rock wool insulation.
2. DPC Edge barrier with foil-faced Urethane insulation.



SPECIFICATION WORDING

Combination Edge Insulator by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

To provide DPC and edge insulation where floor screed / slab / terminates against an external wall.

State encapsulated mineral rock wool or foam insulator choice and dimensions.

PRODUCT NAME - GROUP

Combination Edge Insulators

PRODUCT DIMENSIONS

Lengths	2.44m
Thickness range	20mm - 50mm max
Height range	50mm - 150mm max
DPC height / inboard	50mm - 150mm x
	50mm - 200mm inboard
Cranked format	Extends to provide DPC to inner skin girth

ACTS AS DPC

Yes

ACTS AS ACOUSTIC CUSHIONING

Yes

ACTS AS INSULATOR

Yes

MATERIAL

Polypropylene DPC
Mineral rock wool
Polythene DPM encapsulation
Urethane foam alternative with foil facing

INSULATION K VALUE

0.035 with mineral rock infill insulator
0.022-0.028 with foil-faced urethane insulator

THERMAL CONDUCTIVITY

OF INSULATING MEDIUMS ONLY

Options 0.038 to 0.033W/mK, Foil 0.125 m2K/W

COLOUR

Black DPC with green polythene sleeving

MANUFACTURING STANDARD

BS EN ISO 9001:2008

BUILDING REGULATIONS

Yes regulations can be satisfied

NHBC / ZURICH / PREMIER REQUIREMENTS

Yes requirements can be satisfied

PACK SIZES

Available individually

CFC FREE

Yes + zero ODP

ODP

Zero

ECO POINTS RATING

Low

CAD DRAWING DOWNLOADS AVAILABLE

Yes



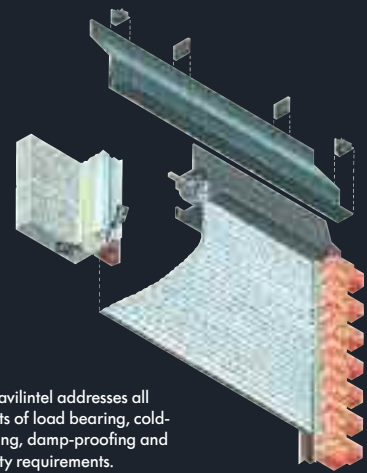
DESIGNERS' COMMENTS

Accepted construction details show the oversite membrane turning up and rising against the face of the inside skin, before returning into the DPC course. In practice there is insufficient membrane to achieve this where corners are inwardly-projecting, as the membrane cannot be stretched. Consequently patching using additional membrane is commonly introduced. The Perimeter Edge Insulator addresses this requirement in a different manner and in so doing eliminates the need to patch the membrane.

Cavintel

Lintel with integral security shutter

- Lintel with built-in facility for vandal-resistant shutter
- Clear structural opening unobstructed by guides or surface fixings
- Complete installation requirements including Cavitytrays, Weeps, Stopends, DPC
- Benefit of property upgrade immediately or at a later date



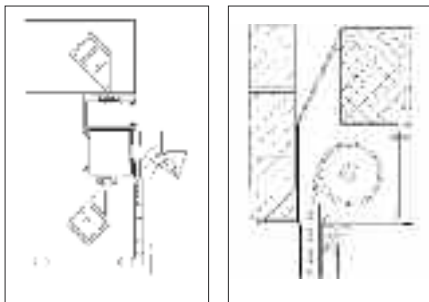
The Cavintel addresses all aspects of load bearing, cold-bridging, damp-proofing and security requirements.

USE

To provide a load bearing lintel over an opening plus an accompanying security shutter facility without affecting the external elevation appearance.

SOLUTION

The Cavintel resembles an ordinary load bearing lintel but incorporates within its box construction a roller security shutter. The shutter is lowered and raised electrically with the ends of the security shutter moving within insulated guides that are set back within the cavity of the masonry wall opening.



Each Cavintel package includes all structural opening requirements. The lintel and security shutter within are accompanied with the insulated guide channels, the head and sill Cavitytrays, Caviweeps and Stopends. This package is completed with a choice of electrical control options. A manual override is provided to facilitate operation in the event of a power cut.

Positioning the shutter guides within the cavity eliminates any external visual interference. When the shutter is raised, it is out of sight. With the guides behind the masonry rather than being surface-fixed, they are not readily accessible by potential intruders.

The Cavintel requires the window or door frame to be set-back within the reveal opening behind the cavity guides that are moulded within the reveal vertical closers. All frames must be free of front projections that might foul any shutter movement. The Cavitytrays to the head and sill that accompany the Cavintel are appropriately dimensioned to suit this construction detail.

Once the opening has been structurally completed and the electricity supply requirement provided, an approved specialist commissions the shutter. Once commissioned, the open back of the Cavintel may be panelled over and visually finished internally by the building contractor.

HOW TO ORDER

We will be pleased to detail and price your requirements. Provide elevation and plans with dimensions. Advise any point loadings, non-standard aspects and design requirements

SPECIFICATION WORDING

Cavintel by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Cavintel package to listed openings as schedule. Request liability/conformity document upon completion.



DESIGNERS' COMMENTS

Closer sits within the reveal masonry and is insulated where the frame abuts in its set-back position. This provides the recommended thermal break arrangement. The metal-lined channel guide within which the shutter ends locate is adjacent and interfaces with the sill DPC Cavitytray. Inward blown rain can discharge via the bottom of the channel.

PRODUCT NAME - GROUP

Cavintel

CAVITY WIDTHS ACCOMMODATED

75mm – 100mm

DIMENSIONS – LINTEL

Bespoke

Max opening width 3000mm

Max drop (shutter) 2400mm

Lintel profile size dictated by drop size

DIMENSIONS – SHUTTER SLATS

40/45mm unless otherwise stated

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes – time frame version offered

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Requires complete rebuilding of opening

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Yes if on exterior face

CURVED WALL ON PLAN APPLICATIONS

No

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via accompanying Caviweeps

MATERIAL – TRAYS / WEEPS / STOPENDS / TIES

Polypropylene DPC

MATERIAL – LINTEL

BS EN 10088 in stainless steel. BS EN 845-2:2001

MATERIAL – LINTEL INSULATION

Polystyrene BS 3837

MATERIAL – SHUTTER SLATS

Aluminium extruded

MATERIAL – CLOSERS/GUIDES

UPVC with aluminium channel glides

COLOUR

Choice of 36 shutter colours

EXTRUDES / COMPRESSES UNDER LOAD

No

WEIGHT

Pending opening and drop dimensions

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Damp-proofing BS EN 845.2:2001

MAY BE USED IF CAVITY INSULATION PRESENT?

Insulation should not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

When quoting we can identify operation options to suit location and safety considerations





ONSITE INSIGHT

Traditional Construction Appearance Damp Arrestment Maximised

Development schemes replicating past construction styles can benefit an innovative approach to damp protection over the window heads. Timber lintels over external openings are currently popular where a traditional cottage style elevation is sought. The innovative approach is to build in the timber lintel so it is purely a visual element, and provide support via a steel lintel immediately above the timber. The load bearing steel lintel is of a longer length than the timber under it, so it bears and all loads subsequently load on masonry beyond the timber ends. No structural demands are made on the timber under the steel that adopts a purely visual role.

In such applications damp protection is provided by two cavitray. At lintel level a Type C cavitray is bedded on the steel lintel and arrests the penetrating rain. Type L Stopends prevent water discharge into the cavity and water evacuation out of the structure is provided by Caviweeps towards the ends of the tray.

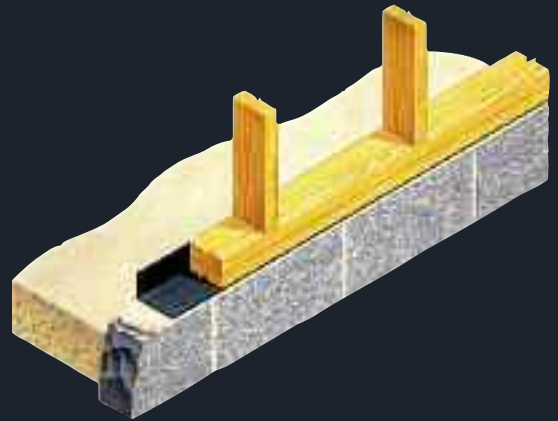
At a lower level under the timber is located a second smaller cavitray. This provides protection against water tracking inwardly in and around the timber lintel, acknowledging that eventual shrinking and settlement will occur where timber and masonry abut but the second tray will control it. The arrangement also provides opportunity to incorporate enhanced thermal insulation using an encapsulated insulation barrier interfaced behind both cavitrays.

The two cavitray approach overcomes a common weakness that manifests if one positions the timber directly on a steel lintel. So doing results in penetrating water behind the timber where the water can pool as well as sponsor rapid decay. The two Cavitray approach guards against this weakness and imposes no structural demands on the timber. In the event the timber should ever require replacement, it can be done without affecting any load bearing aspects of the structure.

Type C Cavitrays are available in profiles and dimensions to suit all opening styles whether the requirement is traditional, modern or classical. Referenced products:

Type C Cavitray + Type L Stopend + Caviweep

Timber Frame and SIPS Preformed DPC Profiles



USE

To provide increased DPC protection of details encountered in timber frame construction.

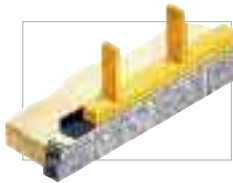
SOLUTION

Using preformed profiles can permit build details to be more thoroughly protected compared with using roll materials. Protection can often extend three dimensionally, eliminating the requirement to bring together individual statutory requirements on site. Rather than DPC protection being applied to just one face, the preformed approach extends it further, guarding against dampness through DPC misplacement or unintentional bridging. Some one-piece profiles additionally address contaminated land gas arrestment, and extend inwardly to the oversite membrane to provide unpunctuated linked integration

DPC STANDARD SOLE PLATE L SHAPED AND T SHAPED PROTECTION

USE

To provide consistently shaped DPC under timber frame construction sole plates and SIPS panels.



SOLUTION

L-shape protects plate horizontally and vertically against its inner face, as depicted in NHBC Standards 6.2. Also as shown in Robust Details (6.11 to 6.15). Optional T-shape provides extended inboard projection for horizontal integration with oversite membrane protection.

STANDARD DIMENSIONS	12400 x 108 x 108mm & 2400 x 108 x 150mm
PACK SIZE	10 number
WEIGHT	5kg
BESPOKE OPTIONS	Yes

DPC PROFILED CAP INTERNAL TIMBER FLOOR

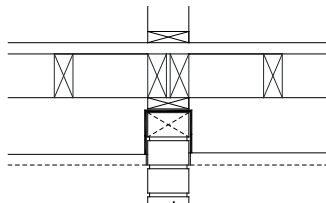
USE

To provide DPC between sole plate and internal load bearing support wall, with adjacent slab floor



SOLUTION

Preformed DPC profile caps the top of the load bearing wall and extends downwardly on both faces.



Dampness in the masonry is isolated from the bearing timber. Profile locates positively eliminating misplacement possible with roll material.

Application: TRADA Timber Frame Construction (5th) page 50 – 3.11, 3.12.

STANDARD DIMENSIONS	110 x 110 x 2400 lengths
PACK SIZE	10 number
WEIGHT	9.5kg
BESPOKE OPTIONS	Yes

DPC PROFILED CAP INTERNAL SLAB DETAIL FLOOR

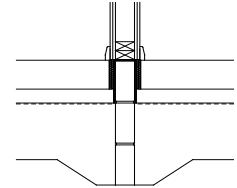
USE

To provide DPC between sole plate and internal load bearing support wall



SOLUTION

Preformed DPC profile caps the top of the load bearing wall and extends downwardly on both faces. Dampness in the masonry is isolated from the



bearing timber. Profile locates positively eliminating misplacement possible with roll material and provides positive vertical lapping with DPM held within the side projections.

Application: TRADA Timber Frame Construction (5th) page 44 – 3.2.

DPC PROFILED THRESHOLD

STANDARD DIMENSIONS	110 x 110 x 2400 lengths
PACK SIZE	10 number
WEIGHT	9.5kg
BESPOKE OPTIONS	Yes

GROUND BEARING CONCRETE FLOOR CONSTRUCTION / TIMBER DOOR SILL

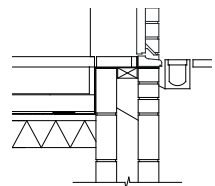
USE

To maintain DPC integrity from sill to oversite DPM



SOLUTION

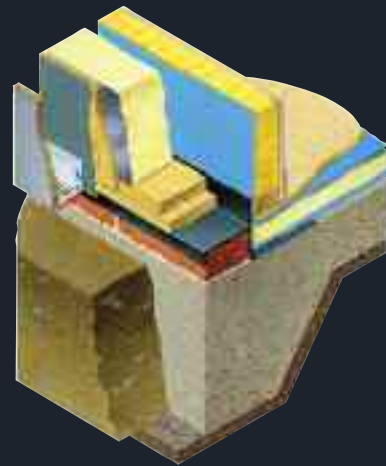
Preformed DPC profile commences under sill and provides upward water check at back of sill. One piece profile provides positive watertight sill-back upstand not possible with roll DPC. Profile extends inwardly and drops downwardly to integrate with oversite DPM that is safely lapped under the descending section.



Application: TRADA Timber Frame Construction (5th) page 38 – 2.8.

STANDARD DIMENSIONS	Bespoke to order
PACK SIZE	Available individual
WEIGHT	15kg

Timber Frame and SIPS Preformed DPC Profiles (continued)



DPC PROFILED SOLE PLATE RENDER/TIMBER CLADDING

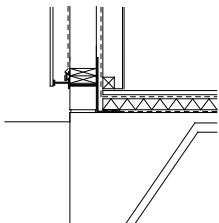
USE

To provide DPC under sole plate and



SOLUTION

Preformed DPC profile commences behind the insulated timber skin and drops vertically and outwardly providing DPC under the sole plate. On the outside face a turn-down lip provides a defined finish against which a ventilation grid as depicted in TRADA Timber Frame Construction (5th) page 35 – 2.4 is located. For grid options consider Type SV-GP, Type SV-FL, Type RASV and Type Corbel.



STANDARD DIMENSIONS	1 Lip 20mm. 115 x 200 (125/75) x 2400 lengths
PACK SIZE	10 number
WEIGHT	15kg
BESPOKE OPTIONS	Yes



DPC profiles and fire-rated cavity stops (Type SAF & CFIS) ensure a consistent build detail with timber frame and SIPS construction.

DPC CAVITRAY STRAIGHT VENTILATOR BRIDGING PROTECTION

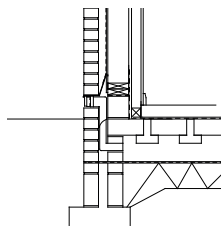
USE

To provide protection against water tracking across to the inside skin via the top surface of a ventilator. Also cranked ventilator applications.



SOLUTION

The breather membrane is perforated by a straight sleeve and this occurs against the timber frame and usually immediately under the timber sole plate. Without a protective cavitray, water can reach the perforated area. A preformed (sloping) cavitray wraps the sleeve so water is directed away from the pierced skin. Consider applications such as TRADA Timber Frame Construction (5th) pages 36, 44, 45, 49 (3.9), 50 (3.10).w



STANDARD DIMENSIONS	330 x 160 x 50mm base
PACK SIZE	Available individually
WEIGHT	0.5kg
BESPOKE OPTIONS	Yes
SEE OTHER ENTRIES	Sleeve & Duct Cavitrays

HOW TO ORDER

Provide dimensioned profile or wall section and plans so optimum profile can be determined and a schedule submitted prepared.

SPECIFICATION WORDING

Type DPC Profile by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769). Profile as agreed detail. Build in at appropriate level observing accompanying installation instructions.

BESPOKE OPTIONS

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Some

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Pettheleyne DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

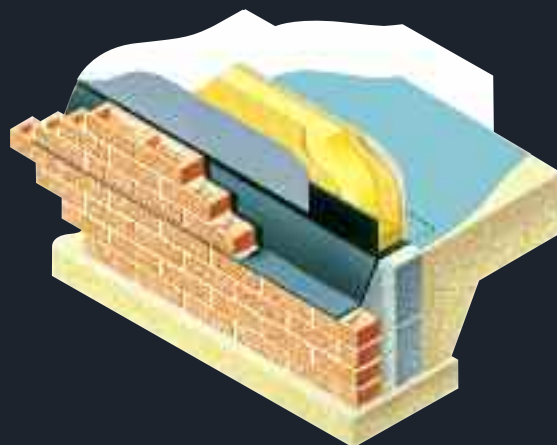
Yes



Type TFC

Timber Frame Cavity

- Acts as dpc, gas and cavity barrier
- Interfaces with oversite membrane
- Compatible with Cavibricks and Caviweeps



USE

Provides DPC in both skins. Functions as a methane and radon (contaminated land) cavity barrier. Functions as arrestment cavity. Interfaces with oversite membrane. Vertically laps with timber frame membrane.

SOLUTION

Preformed Type TFC provides the essential and additional damp protection elements in this one-placement approach that also guards against contaminated land gases.

Promotes continuity of protection (not possible using individual elements) from oversite membrane to face of exterior skin.

TYPE TFC TIMBER FRAME CAVITRAY

The Type TFC is manufactured in solid petheleyne DPC and shaped for immediate building in. The Type TFC is bedded on mortar and in one placement provides the DPC presence in both interior and exterior masonry skins. Adjacent sections are lapped and receive bonding strip. The body of the cavity tray spans the cavity and guards against contaminated land gases such as radon or methane entering the building envelope. Rising and projecting inwardly, the Type TFC extended inboard profile interfaces with the oversite membrane to maintain gas and damp protection integrity. (section may be cranked to suit floor level detail) The upward rising portion of the Type TFC locates in front of the timber frame soleplate and

under the vertical membrane, isolating against hygroscopic ingress. Under cavity tray level incorporate cavibricks @ 900mm centres to exhaust gas. On cavity tray incorporate caviweeps at 900mm centres to evacuate arrested water.

HOW TO ORDER

Provide wall section and plans so optimum profile can be determined and a schedule submitted prepared.

SPECIFICATION WORDING

Type TFC Timber Frame Cavity Tray by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Profile as agreed detail. Bed on mortar in at appropriate level in all exterior walls, observing installation instructions. Ensure inboard section unites and laps with oversite membrane.

Incorporate accompanying cavibricks under and caviweeps as installation requirements.

Metres run..... Angles internal.....Angles external.....

Request liability/conformity document upon completion.

STANDARD DIMENSIONS	330 x 160 x 50mm base
PACK SIZE	Available individually
WEIGHT	0.5kg
BESPOKE OPTIONS	Yes
SEE OTHER ENTRIES	Sleeve & Duct Cavitytrays

PRODUCT NAME - GROUP

Type TFC

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 400mm

DIMENSIONS

Standard 2400mm lengths and preformed angles to suit most masonry dimensions and rises.

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Petheleyne DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

Yes

PROFILE CONSIDERATIONS

Consider straight or cranked inboard section to link with o/s membrane to maintain gas protection measures.

DESIGNERS' COMMENTS

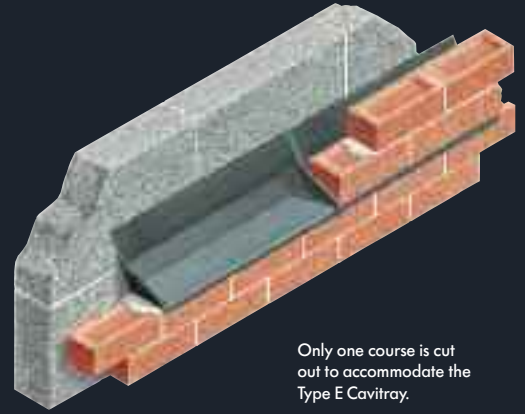
Where the Cavitytray is required to arrest radon gas, special sill trays interface to maintain gas type integrity across the structural opening.



Type E

Cavitrays for insertion into an existing wall

- Brick-sized cavitrays permit progressive insertion
- Anticapil interlocking to form long runs
- Cavity widths compatible - upstand adjusts to suit
- Unobstructed cavity compartment area with stand-alone discharge
- Easy compliance with building regulations



USE

To prevent damp penetrating an original outside wall that has become an inside wall by virtue of an extension being built.

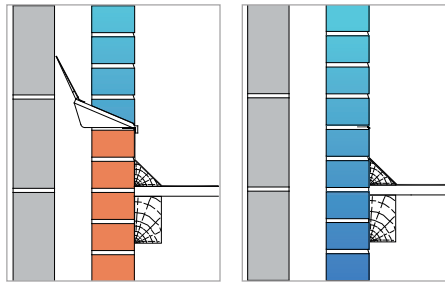
To re-establish damp control measures where an original DPC has failed.

SOLUTION

When an extension is added to an existing property built with cavity walls, the status of the original exterior wall changes below the extension roof level. The wall remains exposed to wind-driven rain above the extension roof, and water penetrating it will gravitate and permeate into the extended area, unless measures are taken.

The Type E Cavitrays is a preformed DPC unit approximately two bricks in length. There are upstands at either end of each tray that permit adjoining trays to clip together. Trays are inserted into a cavity wall one at a time. Long runs are thus created with a series of connected but self-contained Type E units. The preformed ends coincide with the masonry perp joints so bonding is normally unchanged.

All Type E Cavitrays also have an extended back cavity upstand, that runs the length of the tray. The upstand is hinged to take up the cavity width encountered from 50mm to 140mm, ensuring compatibility. The front projecting lip of the tray is designed to provide protection of the bedding course against wind-driven rain.



Type E cavitrays with extended flexible upstands are particularly suitable for non-standard or varying cavities.

Rain penetrates the external skin, which becomes an internal skin below the new roofline.

Apart from the financial saving, the advantages of using Type E Cavitrays are considerable. All work can be executed from outside the building, and the inner skin of masonry need not be disturbed. Only one course of masonry need be removed, as the tray hinging format permits it to be introduced within a 75mm aperture. The interconnecting tray end upstands provide positive continuity, eliminating dependence on lapping and sticking. Accordingly the status of the union through the skin and where it spans the cavity is not in doubt.

Where Type E Cavitrays are used above a new roof intersection, it is usual to also incorporate a flashing that provides a flexible connection over the roof finish upstand or similar (see installation procedure).

In situations where the Type E is replacing a failed DPC, a flashing may not be required – it depends on the application. (see following section dealing with remedial and refurbishment work).

PRODUCT NAME - GROUP

Type E

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 140mm

DIMENSIONS – BRICKWORK & SIMILAR

See guide showing types and locations

BESPOKE OPTIONS

Yes – all dimensions and cavity widths

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

N/A see Type G for new work

RETROFIT / REMEDIAL APPLICATIONS

Yes

MASONRY SKIN STYLES

Trays available for all styles

UNDULATING / SPLIT MASONRY FACES

See Designers' Comments for guide

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

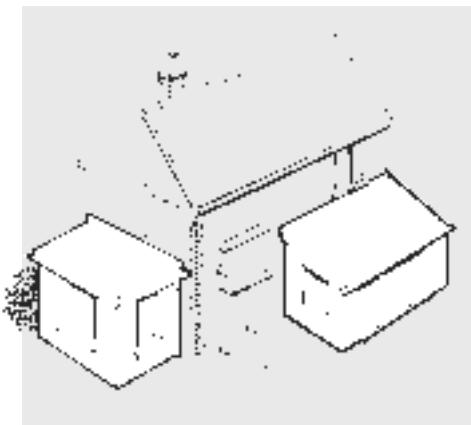
Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

See Designers' Comments ref type.

CAD DOWNLOADS

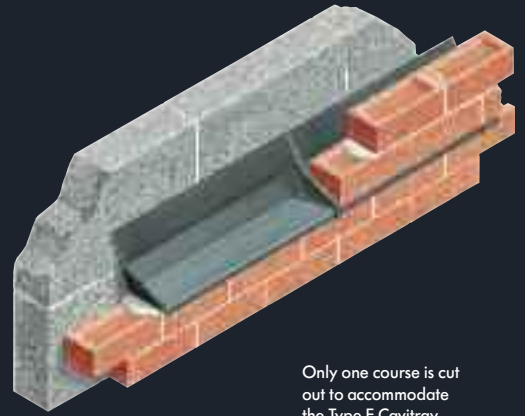
Yes



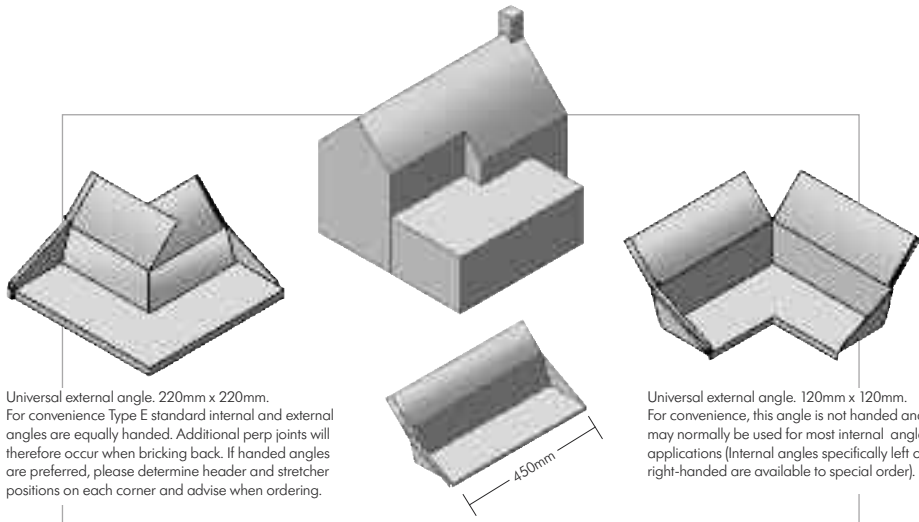
Type E (continued)

Cavitrays for insertion into an existing wall

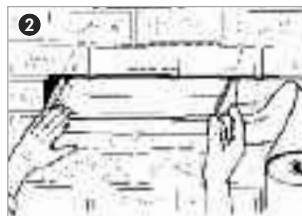
- Brick-sized cavitrays permit progressive insertion
- Anticapil interlocking to form long runs
- Cavity widths compatible - upstand adjusts to suit
- Unobstructed cavity compartment area with stand-alone discharge
- Easy compliance with building regulations



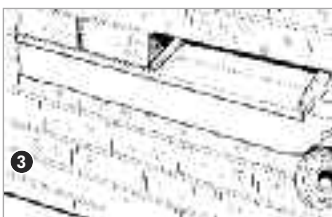
Only one course is cut out to accommodate the Type E Cavitrays.



Step 1 - Three bricks are removed from the wall forming a 675mm opening (an angle grinder /cutter is ideal for cutting out).



Step 2 - One cavitrays is inserted together with the flashing intended for dressing over the skirting of the roof finish (flashing approx 50mm into wall).



Step 3 - Two bricks are replaced in the wall into the Cavitrays. They are jointed and securely slate pinned, leaving the wall above safe and firm. A Weepvent is incorporated in the middle perp. Two more bricks are removed again forming a three brick space. The flashing is extended and a second Cavitrays inserted. The integral U clip joins the trays, ensuring that no water can penetrate. Two more bricks are inserted and a weephole again formed. There are now two adjoining but completely self-contained Cavitrays. The method is continued until the required run is completed. (Always bed on mortar. Do not dry bed.)



Type E Cavitrays with Type W Caviweeps

PRODUCT NAME - GROUP

Type E

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 140mm

DIMENSIONS – BRICKWORK & SIMILAR

Straight lengths 450mm

Internal angle 120 x 120mm

External angle 220 x 220mm

BESPOKE OPTIONS

Yes – all dimensions and cavity widths

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

N/A see Type G for new work

RETROFIT / REMEDIAL APPLICATIONS

Yes

MASONRY SKIN STYLES

Trays available for all styles

UNDULATING / SPLIT MASONRY FACES

See Designers' Comments for guide

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

See Designers' Comments ref type.

CAD DOWNLOADS

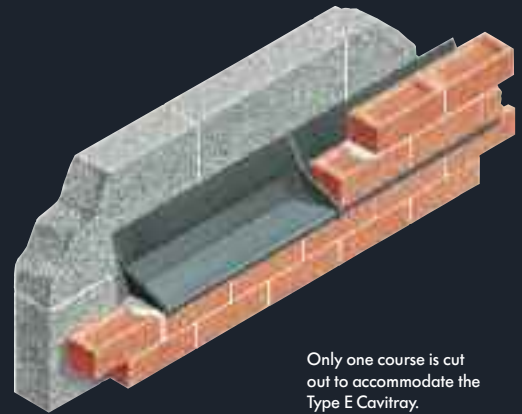
Yes



Type E (continued)

Cavitrays for insertion into an existing wall

- Brick-sized cavitrays permit progressive insertion
- Anticapil interlocking to form long runs
- Cavity widths compatible - upstand adjusts to suit
- Unobstructed cavity compartment area with stand-alone discharge
- Easy compliance with building regulations



Only one course is cut out to accommodate the Type E Cavity Tray.

The integral stopends of the Type E Cavity Tray mean each unit is a self-contained stand-alone DPC unit with its own collection area. Therefore provision must be made to discharge all water arrested by each tray. This is facilitated using a Caviweep incorporated within the perp joint in the centre of each tray. The specifier may select from a range of Caviweep styles and colours to suit the project.



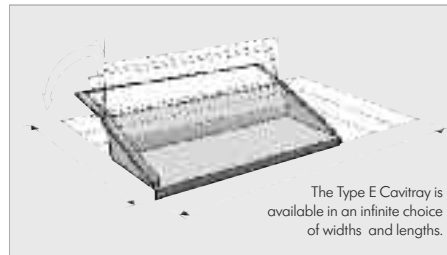
Type E Cavitrays used without flashing, over an existing opening where the original damp course has failed or has been omitted. The exact course in which the cavity tray is introduced varies depending on the construction detail.

TYPE OF EXISTING MASONRY

Where the masonry skin into which trays are to be inserted is not brickwork, the Type E Cavity Tray can be supplied in dimensions to suit. The depth of each tray can be increased to accommodate thicker external skins, as can the length to suit different masonry modules. The cavity width range can also be selected. Our bespoke service can accommodate most requirements, including trays with provision for windposts, stanchions, changes of level and set-backs in the finished face line.

DUAL EXPOSED ELEVATIONS

Tray upstands always project upwardly in the cavity. The exception is where an inner skin is also



The Type E Cavity Tray is available in an infinite choice of widths and lengths.

externally exposed and receptive to the weather, as might be encountered in a parapet wall. In such instances trays either incorporate an additional flap that turns down prior to making contact with the masonry, or should trays be back to back with others in the opposite skin, a clipping arrangement is provided to fulfil the same function. This approach prevents upstand under-tracking. We will be pleased to identify and advise should this requirement arise.

HOW TO ORDER

State number of standard lengths and angles required.

Non-standard: provide drawing / dimensions and we will immediately advise.

SPECIFICATION WORDING

Type E Cavitrays for insertion into existing masonry skin by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Metres run x ()

Angles internal left/right hand x no ()

Angles external left/ right hand x no ().

Request liability/conformity document upon completion.

DESIGNERS' COMMENTS

Where masonry with a split or undulating face exists, consider grinding insertion base edge so masonry adopts a straight finish to permit inserted trays and flashing to nestle back evenly and consistently tightly against edge. Where a rendered finish exists, consider whether a deeper tray might be appropriate to accommodate overall skin thickness.

If inserting into an existing wall containing full fill or partial fill insulation, ensure back upstand is positioned to service full width of cavity. If bead insulation is installed, be aware that some early styles were not bonded (loose fill) and will expel when a wall is opened up.

Correct installation of a cavity tray at the junction of an external cavity wall and a conservatory roof will prevent the ingress of water into the conservatory through the existing external wall of the house. Designers and householders should be aware that without a properly installed cavity tray some water ingress may occur in certain locations during severe weather conditions.

The Building Standards Technical Handbook – Conservatories Guide 2nd edition issued to provide guidance on how to meet the Building Regulations for conservatories built onto existing houses. Published October 18th 2010.

PRODUCT NAME - GROUP

Type E

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 140mm

DIMENSIONS – BRICKWORK & SIMILAR

See guide showing types and locations

BESPOKE OPTIONS

Yes – all dimensions and cavity widths

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

N/A see Type G for new work

RETROFIT / REMEDIAL APPLICATIONS

Yes

MASONRY SKIN STYLES

Trays available for all styles

UNDULATING / SPLIT MASONRY FACES

See Designers' Comments for guide

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

See Designers' Comments ref type.

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Lip projections to opening only with set back over-sailing to ends available as no-cost option



Type ECBC

Exempt Conservatory Base Cavitytray

- Pre-shaped lengths, angles and stopends
- Build cost reduction
- Speeds getting out of the ground
- Standardised and consistent detail



USE

To provide sub structure damp protection where a restricted single brick foundation is used in the construction of an exempt conservatory.

INTRODUCTION

Exempt conservatories can benefit a simplified foundation design conditional on the ground conditions being acceptable and the foundation strip being proportioned to ensure acceptable load spread. With a foundation depth in excess of 700mm (to avoid frost heave) a simplified approach permits conservatory contractors to reduce both time and cost in arriving at conservatory base level.

TYPE ECBC EXEMPT CONSERVATORY BASE CAVITRAY

The Type ECBC cavitytray is bedded in the exterior skin and crosses the cavity as it rises towards the inner skin where it terminates against it (unless the optional profile to build into it is stipulated). It acts as a conventional horizontal DPC and arrests gravitating penetrating water, preventing pooling at a lower level. Arrested water is

discharged out of the structure via caviweeps incorporated within perp joints at 900mm centres. The slab membrane ideally extends upwardly into the cavity void under the tray or may terminate within the same bed course. With profiled lengths and preformed angles and bonding strips to link lapping sections, the conservatory installation can benefit a consistent and swiftly formed build detail.

HOW TO ORDER

Advise number and lengths and internal / external angles. Advise specific dimensions if you have a non-standard requirement.

SPECIFICATION WORDING

Type ECBC Exempt Conservatory Base Cavitytray by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Bed in exterior skin at appropriate level, lap and use bonding strip to link adjacent sections.

PRODUCT NAME

Type ECBC Exempt Conservatory Base Cavitytray

CAVITY WIDTHS ACCOMMODATED

From 75mm up to 150mm (stipulate)

DIMENSIONS

125 x 170 x cavity width

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes adopting single skin format + base slab

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No -- see Type E

MASONRY SKIN STYLES

No known limitation with compatible base dimensions

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility within specific application

MATERIAL

Polypropylene

COLOUR

Dark grey / black

EXTRUDES / COMPRESSES UNDER LOAD

No

WEIGHT

Average 0.6 kg per metre run

REGULATION COMPLIANCE

Yes can be used to satisfy exempt conservatory

CAD DOWNLOADS

Yes

DESIGNERS' COMMENTS

This cost-effective simplified approach should be considered for lightly loaded conservatories only. If protection against radon gas is required, ask about alternative compliant protective approaches. "The Conservatory Base Cavitytray manufactured by Cavity Trays of Yeovil makes this design approach perform 100%" - Surveyor Don Wentworth of Installer magazine - Top 100 Trades Windows, Doors and Conservatories. Always determine whether your structure is deemed exempt. An exempt structure falls within defined dimension parameters and must have a compliant proportion of glass, be separated from the dwelling by doors, be without heat and be thermally disconnected from the property to which it is attached. Always check with your Local Building Control office. If the conservatory is not exempt, refer to traditional DPC disciplines at ground level and the status of the conservatory roof intersection with the existing building as Building Regulations will apply -- see Type E cavitytray.





ONSITE INSIGHT

Higher Resistance Flashing Specification

A high risk of exposure to severe driving rain exists in many parts of the UK, with areas previously considered to be sheltered experiencing extreme levels of deluge rainfall.

The recent changes within BS 5534 prompt appraisal of British Standards BS 8104 and BR 262 that refer to buildings of a height up to 12 metres. When the height of the building exceeds 12 metres, BS EN 1991-1-4:2005+A1 addresses increased wind speeds. Wind/rain impact on roof/wall intersections can be demanding, especially where roofs are flashed.

The windward side of a building will act as a vacuum force on the lee side of the building and it is generally accepted the uplift force is equal to the force applied windward. The pressure variances undulate and can impose positive and negative pressures around flashings.

Driving rain accompanied with wind will breach a conventional running stepped flashing where pressure forces the water into and under the flashing leading edge. Once under the leading edge, water is immediately in contact with the back of the flashing and the

(outer skin) fabric of the building - the very masonry that is supposed to remain dry. The wetness then gravitates downwardly where the masonry skin is an inside wall under the sloping roofline.

Far greater weathering protection is provided by individual stepped lapping flashings, compared with the traditional running flashing. But it is how such individual flashings are shaped, lapped, positioned and secured that identifies their capability.

Type X Cavitytrays manufactured specifically for stepped and staggered gable abutments have individual stepped lapping flashings already attached. The flashings are already shaped to suit the angle of the roof, and following building-in of the Cavitytrays, require dressing only.

Once dressed, the relationship between individual flashings of trays provides a unique overlapping arrangement wherein should water drive under the leading edge, it is arrested by the lapping layer and safely discharged - away from the masonry area that remains protected.

Type F

PVC Corrugated Flashing for use with PVC Sheeting

- Fills and flashes sheet top with masonry
- Adjusts to suit different roof angles
- Blends with roof finish



Type F standard 3 inch profile. Type E Cavitray can be fitted at higher level if required

USE

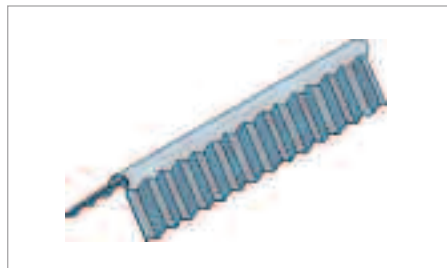
To flash the intersection between corrugated roof sheets and a masonry skin.

SOLUTION

Malleable flashings require considerable dressing to tightly follow the contours of any roofing sheet. Where the sheet is lightweight UPVC, such dressing is not an option. The alternative approach is to use a ready-moulded Type F Flashing.

Type F Flashings can be used on porches, lean-to's, outhouses, conservatories or temporary structures having lightweight translucent corrugated sheeting.

Each Type F Flashing has a moulded hinge line between its corrugated half and its flat upstanding half that locates against the wall surface. This permits the flashing to be used on roof pitches from 17.5 degrees up to 60 degrees. The flashings are fixed by simply positioning before securing the top of sheet fixings, that then hold both the sheet top and the flashings in place. The Type F fits into the corrugations snugly, whilst the upstand springs to shape vertically against the wall. The upstand can then be finished with a flashing / Cavitray as required.



Type F Flashings are manufactured in 8 different profiles. A ridge flashing to unite where corrugated sheets meet in an apex is available in the Std 75mm/3" asbestos profile range only.

HOW TO ORDER

State profile and number of standard lengths required.

SPECIFICATION WORDING

Type F Flashing to corrugated sheeting intersections by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Profile required (state) x metres run (state)
Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Type F Flashing Units

CAVITY WIDTHS ACCOMMODATED

N/A fixes against external face

DIMENSIONS - SHEET/WALL FLASHINGS

Std 75mm/3" asbestos profile x 715mm

Std 75mm/3" iron profile x 715mm

Miniature x 715mm

Grecca box profile 76/18mm x 715mm

Box profile 16mm x 715mm

Box profile 14mm x 715mm

Onduline Std (black) x 900mm

Onduline U18 (black) x 900mm

DIMENSIONS - RIDGE FLASHING

Std 75mm/3" asbestos profile x 700mm

BESPOKE OPTIONS

No

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

Upstand ideally abuts flat surface

UNDULATING MASONRY FACES

Upstand ideally abuts flat surface

CONGRUENT WITH OTHER WALL ELEMENTS

No known reactions

MATERIAL

Material Onduline Flashings only

UPVC SELF-EXTINGUISHING CLASSIFICATION

Polypropylene toning grade

COLOUR

Colour - Onduline only

CLEAR / TRANSLUCENT

Black

EXTRUDES / COMPRESSES UNDER LOAD

N/A

PACK SIZE / WEIGHT

Available individually

Also in packs of 50

CFC

CFC Free

ODP

Zero

CAD DOWNLOADS

No

DESIGN CONSIDERATIONS

Cavitray required over intersection to comply with Building Regulations regarding habitable additions.

DESIGNERS' COMMENTS

All flashings are manufactured of a length slightly shorter than the width of a standard corrugated sheet to reduce likelihood of all overlaps coinciding and contributing to heat discoloration.

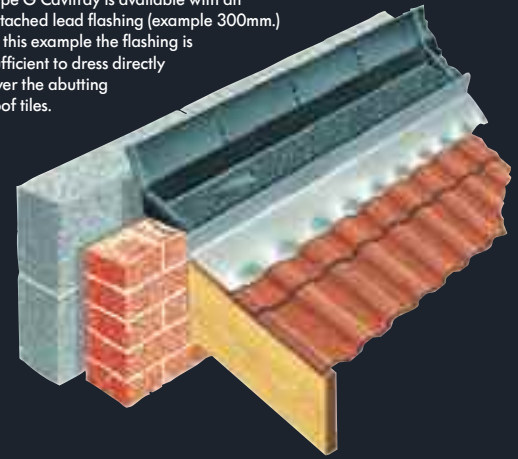


Type G

General purpose Cavitrays for changes of level and building off the solid or ringbeam

- Easy and fast building-in with brickwork sized units
- Adjoining lengths interlock
- Adjustable upstand ensures cavity width compatibility
- Traditional or timber frame construction
- Unobstructed cavity compartment area
- Establishes consistent build quality detail

Type G Cavitrays are available with an attached lead flashing (example 300mm.) In this example the flashing is sufficient to dress directly over the abutting roof tiles.



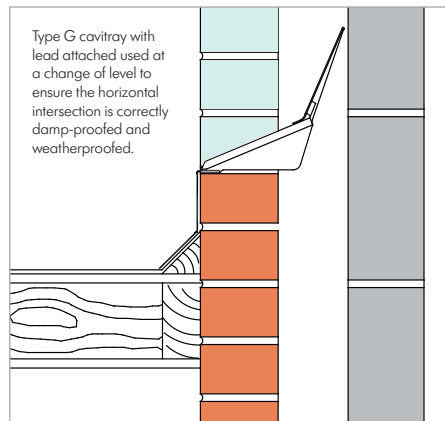
USE

To form a cavity-crossing horizontal DPC within a cavity wall. To overcome joint and support concerns in crossing the cavity. To eliminate the need to build into the inner skin. To ensure the external flashing arrangement servicing a horizontal DPC has a watertight union where it connects.

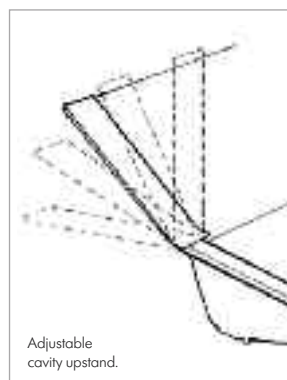
SOLUTION

The Type G Cavitrays is a preformed general purpose DPC cavity tray for use when constructing changes of level and horizontal intersections in new building. Trays are supplied in preformed lengths and preformed angles, all of which have end upstands. Adjoining tray upstands unite and secure together within the perp joint – thus long runs are speedily created.

The back of the Type G Cavitrays tray is hinged and self-supports, permitting it to adjust to suit whatever cavity width is encountered from 50mm up to 160mm inclusive. This independence permits the tray to take up the optimum shape and function within the cavity, regardless of the inner skin composition (blockwork or timber or concrete). The inner skin remains unpunctured.



Type G Cavitrays may be supplied with an attached flashing bonded to the front of the tray or alternatively an external front weathering lip instead of a flashing. The advantage of the flashing attached option is, it eliminates the need to deal with the flashing as a separate site operation. It also establishes without doubt the union between tray and flashing is correct and positive. The mason is saved the task of having to return to site at a later date to point-in the union as flush pointing can be executed when the tray is placed.



DESIGNERS' COMMENTS

Always check tray adopts optimum profile servicing cavity for unhindered functionality of tray with approved full or partial fill insulation present. When used within a diaphragm wall the dimensions of the Type G Cavitrays normally remain as standard, with tray back running through connecting cross-ribs. Any pooling is thus contained within the base against the exterior skin. See BS 8215 and PD 6697:2010 recommendations for design of masonry structures fulfilled by using the Type G Cavitrays.

PRODUCT NAME - GROUP

Type G

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 160mm

DIMENSIONS – LENGTHS

900mm 675mm 450mm

Infill lengths to suit

DIMENSIONS – ANGLES

220mm x 220mm universal external

120mm x 120mm universal internal

DIMENSIONS – TYPE G PROFILE

124mm base x 215mm upstand max

DIMENSIONS – FLASHING TO FRONT

150mm, 180mm, 225mm 250mm 300mm 360mm

BESPOKE OPTIONS

Yes. Standard product accommodates cavity up to 160mm. Specify flap extension for cavities up to 200mm.

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT / REMEDIAL APPLICATIONS

No – see Type E

MASONRY SKIN STYLES

Trays available for all styles

UNDULATING / SPLIT MASONRY FACES

See Designers' Comments for guide

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 – 0.17

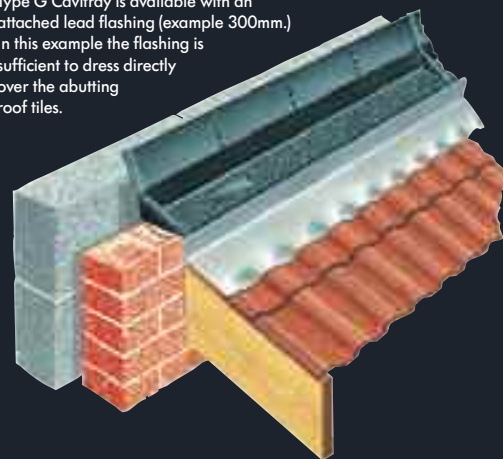


Type G (continued)

General purpose Cavitytray for changes of level and building off the solid or ringbeam

- Easy and fast building-in with brickwork sized units
- Adjoining lengths interlock
- Adjustable upstand ensures cavity width compatibility
- Traditional or timber frame construction
- Unobstructed cavity compartment area
- Establishes consistent build quality detail

Type G Cavitytray is available with an attached lead flashing (example 300mm). In this example the flashing is sufficient to dress directly over the abutting roof tiles.



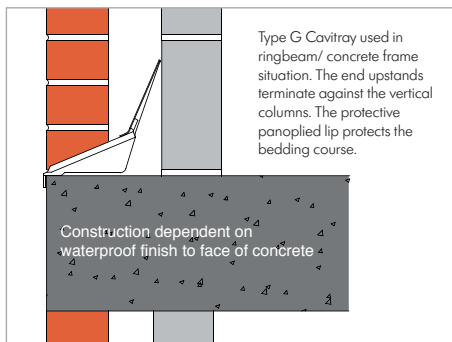
Where cavity trays adjoin, continuity of the flashing is maintained as each flashing extends beyond one end of the tray so it can interface with its neighbour. Tray flashings are automatically supplied in this manner. Unless otherwise stipulated, any attached flashing is of code 4 lead. Different lead weights are available upon request plus a range of flashing alternatives are offered and listed within the data panel. (Flashing material specifications appear later in this manual)

Rainwater penetrating the external skin is arrested within each tray and discharged out of the structure via Caviweeps located in perp joints towards the centre of each tray. The specifier may select from a range of Caviweep styles and colours to suit the project.

Use of a preformed Cavitytray for new horizontal intersections removes the uncertainties of site cutting, site fabrication and installer deviances. Gluing and lapping is not required, and functionality is independent of the inner skin.

DUAL EXPOSED ELEVATIONS

Tray upstands always project upwardly in the cavity. The exception is where an inner skin is also externally exposed and receptive to the weather, as might be encountered in a parapet wall.



Type G Cavitytray used in ringbeam/ concrete frame situation. The end upstands terminate against the vertical columns. The protective panoplied lip protects the bedding course.

Construction dependent on waterproof finish to face of concrete

In such instances trays either incorporate an additional flap that turns down prior to making contact with the masonry, or should trays be back to back with others in the opposite skin, a clipping arrangement is provided to fulfil the same function. This approach prevents upstand under-tracking. We will be please to identify and advise should this requirement arise.

HOW TO ORDER

State number of standard lengths and angles required. Non-standard: provide drawing / dimensions and we will immediately advise.

SPECIFICATION WORDING

Type G Cavitytray to horizontal intersections by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Trays to have code 4 lead flashing attached size (mm)

Metres run x ()

Angles internal x no ()

Angles external x no ()

Request liability/conformity document upon completion.



ONSITE INSIGHT
see page 79

MATERIAL – TRAY

Pethelleyne DPC

MATERIAL – FLASHING

Code 4 lead BS EN 12588,2006

MATERIAL – FLASHING ALTERNATIVES

Synthetic flashing with colour option

Copper

Aluminium

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

No minimum

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

See Designers' Comments ref type.

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Wider cavity range now accommodated

DESIGNERS' COMMENTS

Always check tray adopts optimum profile servicing cavity for unhindered functionality of tray with approved full or partial fill insulation present. When used within a diaphragm wall the dimensions of the Type G cavitytrays normally remain as standard, with tray back running through connecting cross-ribs. Any pooling is thus contained within the base against the exterior skin. See BS 8215 and PD 6697:2010 recommendations for design of masonry structures fulfilled by using the Type G Cavitytray.



Type GBOT

Type G Balcony Opening Tray

- Integrates vertical and horizontal DPC mediums
- Establishes stopends to opening
- Prevents cavicloser discharging below intersection
- Two format options



USE

Provides interfacing between horizontal cavitray and vertical cavicloser at opening onto balcony thus preventing closer water gravitating below the critical level of protection. Introduces integral stopend at vulnerable doorframe termination point.

INTRODUCTION

An appropriately profiled cavitray is required where a balcony extends outwardly from the face of a building. Where a doorway interrupts any such arrangement, water penetrating in the vicinity of the vertical cavicloser must be prevented from gravitating below threshold level and/or below the horizontal cavitray arrestment level. This applies where a balcony structurally links through the wall interrupting the open cavity, and/or where the area below the balcony is not an open space because it is within the building envelope. The Type GBOT Balcony Opening Tray provides a preformed positive way of linking vertical and horizontal protective mediums.

SOLUTION

Type G Balcony Opening Trays are handed preformed DPC units. The base of each Type GBOT is dimensioned to accommodate the lower end of the reveal cavicloser* and abut the doorframe. Thus the closer drops into the tray rather than continuing downwardly. This prevents water discharge below sill level. This arrangement arrests water that penetrates up to the masonry/frame intersection. Trays are handed to suit both sides of the balcony doorway frame and shaped to additionally integrate with protection extends under the sill.

In some applications the handed Type GBOT trays and the connecting undersill tray can be supplied as one unit. This reduces the number of joins between sections.



Should design restraints dictate the vertical cavicloser cannot drop into the Type GBOT, an alternative approach is available in which the vertical cavicloser drops into an upward projecting bonding sleeve. Both formats are available as one-piece and multi-piece solutions in an infinite range of dimensions to suit balcony construction styles. Our take-off service will identify and schedule a proposal for your consideration.

**If using a Continuity Cavicloser, the tray is correspondingly profiled to receive same.*

HOW TO ORDER

Provide wall section and plans so optimum arrestment profile can be determined and a schedule submitted prepared.

SPECIFICATION WORDING

Type GBOT Balcony Opening Trays by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769). Design as recommended detail. Bed on mortar at appropriate level either side of cavity wall reveal and under sill, allowing to link with adjacent cavity trays. Observe installation instructions.

Number of balcony openings =
Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Type G Balcony Opening Tray GBOT

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 160mm

DIMENSIONS

Lengths, and dimensions varied to suit

BESPOKE OPTIONS

Manufactured on this basis

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Some options

MASONRY SKIN STYLES

Available for all skin styles

UNDULATING MASONRY FACES

Compatible in most instances

CONGRUENT WITH OTHER WALL ELEMENTS

Caviclosers accommodated.

ARRESTED WATER EVACUATION

Via Caviweep(s) per tray

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 - 0.17

MATERIAL

Polypropylene and Petheleyne DPC

COLOUR

Black / Grey

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Permits meeting of requirements

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality unaffected pending type and placement

CAD DOWNLOADS

Supplied following evaluation

DESIGN CONSIDERATIONS

If using a Continuity Cavicloser the Type GBOT permits any partial fill insulation to be splay cut and the thermal enhancement provided by the cavicloser core projection to continue into the tray base.



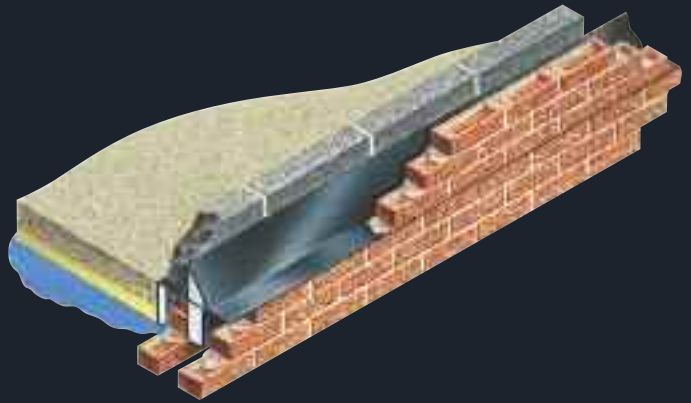
DESIGNERS' COMMENTS

Height of horizontal arrestment must be appropriate for balcony floor level. The access opening requires protection under it in addition to it linking with the adjacent horizontal provision. Water penetration prevention must address the entire balcony junction length. Protection under sill will normally be included with the Type GBOT solution identified as being most appropriate.

Type GBFICS

Ground Bearing Floor Insulating Cavity System

- Multi-functional one placement product
- Radon and methane cavity barrier
- Enhanced perimeter insulation



USE

To provide exterior wall ground floor DPC protection around the base of a building in a manner that prevents radon/methane gas entering the cavity and also insulates the arrangement.

SOLUTION

When installed around the perimeter of a building at ground floor level the requirements of Robust Details can be satisfied with use of the Type GBFICS. Manufactured from profiled semi-rigid damp course the Type GBFICS provides the horizontal DPC requirement to both inner and outer skins of the cavity wall. At the same time the cavity is capped, establishing an integral barrier to guard against radon and methane gas rising upwardly via the cavity and permeating the building envelope. To maintain gas tight integrity, the inboard section of the Type GBFICS extends sufficiently to link with a gas-grade oversite membrane. The downward projecting section of the Type GBFICS protects the membrane from damage where it rises against the inner leaf.

Water arrested on the Type GBFICS upper surface is evacuated out of the structure via Caviweeps. Gas rising in the cavity under the

Type GBFICS is evacuated out of the structure via ventilating Cavi bricks appropriately spaced around the building. The integral insulation bonded to the units promotes thermal barrier presence to the slab/inner wall junction and within the cavity.

The Type GBFICS is supplied in long lengths with preformed sections to accommodate corners, threshold openings and changes of level. Units are bedded in mortar after which a sealing strip is applied to unite sections.

The GBFICS is supplied on a bespoke basis to suit the individual project. All profile dimensions are variable. Project evaluations and schedules prepared on request.

HOW TO ORDER

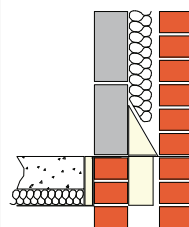
Provide drawing / dimensions and we will immediately advise.

SPECIFICATION WORDING

Type GBFICS to close base of external wall by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769)



Typical Section



Water arrested by Cavity tray upstand is evacuated via Caviweeps

COMPUTER REFERENCE CODES:
CBFICS

PRODUCT NAME - GROUP

Type GBFICS

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 150mm

DIMENSIONS

All variable

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT / REMEDIAL APPLICATIONS

No

CURVED WALL ON PLAN APPLICATIONS

Yes some styles possible

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

'K' VALUE OF INSULATION USED

0.038W/mK

TYPICAL COMPOSITE THERMAL RESISTANCE

2.63 m²K/W / 100mm cavity

MATERIAL – TRAY

Petheleyne DPC

MATERIAL – INSULATOR

Polystyrene

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

No minimum

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arresment

MAY BE USED IF CAVITY INSULATION PRESENT?

Does not affect functionality

CAD DOWNLOADS

Yes

DESIGNERS' COMMENTS

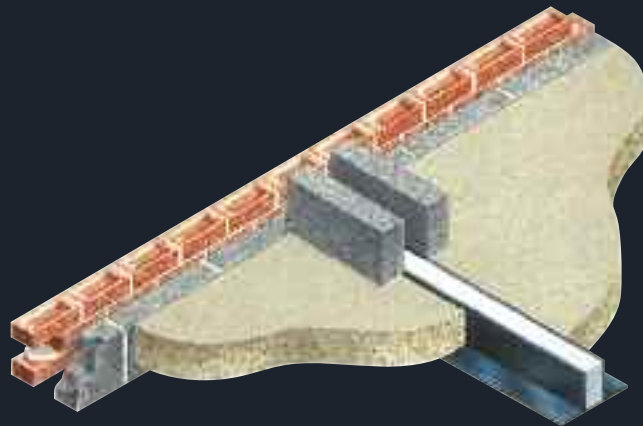
When used on contaminated ground, the Type GBFICS permits compliance of radon delete protection requirements to be established and at the same time the thermal insulation standards to be maximised in one product placing.



Type GBPWIS

Ground Bearing Party Wall Insulating Section

- Eliminates need for temporary formwork
- Creates and closes cavity arrangement
- Establishes party wall spillage channel
- Enhanced perimeter insulation
- Multi-functional one placement product



USE

Eliminates temporary formwork, creates cavity, provides party wall slab insulation with DPC corroboration.

SOLUTION

The Ground Bearing Party Wall Insulating Section is located and bedded along the line of the party wall between attached properties.

The Type GBPWIS takes the place of formwork, the need for which is eliminated. The oversite concrete is laid abutting the Type GBPWIS, thus encapsulating it in position. This establishes slab edge DPC corroboration with cavity insulation infill between dwellings at the base of the cavity wall.

Once the concrete has cured, the upper layer of this insulation within the Type GBPWIS can be removed (or all insulation removed if desired) leaving a channel between dwelling slabs to provide the requisite check/escape route for water defined by Robust Details and NHBC Standards. The Type GBPWIS is available to suit all popular slab dimensions.

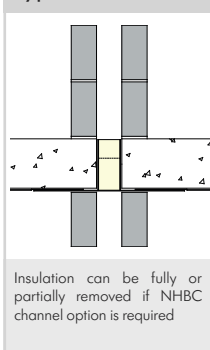
HOW TO ORDER

State number of lengths required, cavity width and slab thickness.

SPECIFICATION WORDING

Type GBPWIS by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769) to close base of external cavity wall.

Typical Section



Insulation can be fully or partially removed if NHBC channel option is required

COMPUTER REFERENCE CODES:
CAVI FORMER (STATE DIMENSIONS)

PRODUCT NAME - GROUP

Type GBPWIS

CAVITY WIDTH CREATED

75mm 100mm 125mm 150mm

DIMENSIONS

All variable. 2400mm lengths

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes – can interface

NEW WORK APPLICATIONS

Yes

RETROFIT / REMEDIAL APPLICATIONS

No

CURVED WALL ON PLAN APPLICATIONS

No

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

'K' VALUE OF INSULATION USED

0.038W/mK

TYPICAL COMPOSITE THERMAL RESISTANCE

2.60 m²K/W / 100mm cavity

MATERIAL – TRAY

Petheleyne DPC

MATERIAL – INSULATOR

Polystyrene BS 3836-1986

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

No minimum

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Meets requirements

MAY BE USED IF CAVITY INSULATION PRESENT?

Does not affect functionality

CAD DOWNLOADS

Yes

DESIGNERS' COMMENTS

By requesting the infill insulation to be in two layers, the top layer can be removed once the concrete has cured. This leaves an open channel with insulation at its base. The channel can be used to satisfy NHBC and Robust Details provision within a separating wall as depicted in E-WT-1 and E-WT-2.





Type GBOT trays can be used in remedial applications. When a screen is adjacent to the opening, the tray is elongated to accommodate it.

ONSITE INSIGHT

Water Gravitational Transference - Reversing the Standard Rule

Part C of the Building Regulations state where a location is exposed / falls within a zone 4 category, all window and door openings in cavity walls should be built with checked reveals. If one does not build a checked reveal the Regulations qualify a straight reveal is acceptable if construction incorporates a finned cavity closer. Unfortunately it would appear there is no specification for 'finned' – no minimum or maximum dimensions - so the suitability and effectiveness of any closer incorporating fins can vary from manufacturer to manufacturer.

Fins are intended to act as capillary and barrier checks. They challenge water permeating inwardly against the frame and provide drainage voids via which water can gravitate and safely discharge at the bottom of the closer. As the bottom of the closer is below sill level, discharge is beyond the structural opening.

This standard rule should be reversed when it is a door opening and the wall under it becomes an interior wall. A good example being a doorway onto a balcony, where the balcony is not free-projecting but has living accommodation below. If the standard rule is followed, the

construction will be susceptible to damp as penetrating water can gravitate to the accommodation area below the door opening sill level.

The alternative or 'reverse' approach is to terminate the closer into a compatible cavitray at the balcony intersection level. The cavitray can then receive any draining water, preventing it from continuing its usual downward discharge path. Appropriately dimensioned and linking with adjacent cavitrays, the arrangement often includes protection under the door sill. Installation can be in interconnecting sections or often in one piece, albeit the horizontal arrangement is always continuous and unpunctuated.

In wind-driven rain conditions, if the closer projects below the intersection level the variation in manufacturers fin specifications influences to what extent and how successfully gravitating water can be prevented from reaching those parts of the structure that should be kept dry. The use of Type G Balcony Opening Trays (GBOT) provide a way of removing chance and arresting water before it can become problematic.

Type GBOT. Bespoke options also available. Building Regulations Part C, page 39, section 5.32, second paragraph.

Type J

DPC Support and Closer

- Insulates and closes the cavity
- Supports the DPC
- Prevents water pooling under coping
- Satisfies BS 5628 requirement



The Type J is available either insulated or uninsulated.

USE

Closes cavity and provides DPC support where it crosses the cavity under parapet copings.



SOLUTION

The conventional cavity parapet is normally terminated with copings, under which a DPC is bedded. The width of the DPC is required to be sufficient to slightly overhang the width of the parapet masonry. Support of the DPC is required where it crosses the cavity. The Type J Support and Closer is designed for such purposes.

The Type J is manufactured from PVCU. Insulation infill between the two locators that project downwardly in the cavity is available as an optional addition. The Type J is bedded on mortar prior to the DPC being laid on mortar across its top.



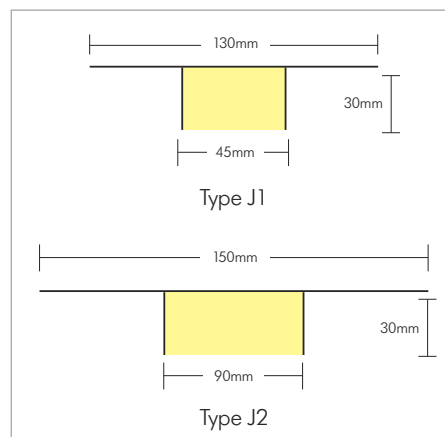
Water permeation via any parapet coping is commonly through fissures and cracks that manifest in the coping joints following seasonal temperature and weather changes. Penetration can also eventually occur through the actual coping itself, and long term waterproofing resistance should not be assumed.

HOW TO ORDER

State J1 or J2 size and number of lengths required. Bespoke: advise parapet dimensions and coping overall width.

SPECIFICATION WORDING

Type J DPC Support and Closer by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769)
Metres run x ().



PRODUCT NAME - GROUP

Type J

CAVITY WIDTHS ACCOMMODATED

All – width does not affect functionality

DIMENSIONS

2400mm standard lengths

J1 130mm x 30mm/ cavities up to 90mm

J2 150mm x 30mm /cavities up to 130mm

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

N/A

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No identified exceptions

ARRESTED WATER EVACUATION

Negligible – DPC projects / drips

THERMAL TRANSMISSION OF MATERIAL

Negligible – 0.15 – 0.17

MATERIAL

PVCU

COLOUR

White

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Individually available

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Can be used to satisfy

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes does not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Need for parapet tray where wall continues below roof level – see Type P Cavitytray



Type K

Circular Cavitray for circular / bullseye openings

- Horizontal and vertical DPC in one unit
- Enveloped 360 degree protection
- Permits continuity of cavity insulation
- Frame position options
- Range of sizes



Type K Circular Cavitray provides 360° protection.

USE

To correctly damp-proof circular openings.

SOLUTION

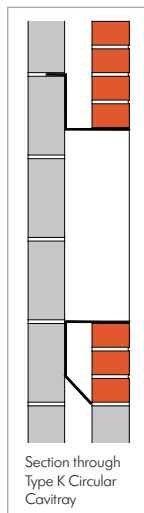
The Type K Circular Cavitray is manufactured from solid DPC and is supplied in one piece ready to receive the circular window. It fits snugly around the frame providing a 360 degree barrier. The circular window is immediately enveloped in a durable Cavitray thus ensuring correct and thorough protection. The inside skin of the cavity wall and the sides of the circular frame are protected from dampness.

The Type K Circular Cavitray accommodates numerous cavity widths and numerous frame positions. The Cavitray travels downwards within the cavity until it passes the bottom of the circular frame. At this point the base projects forward so any arrested water is directed away from the inside skin.

One of the most economical locations for frame placement is mid-cavity. In this position the arrangement can also benefit a circular thermal collar. Manufactured from dimensionally stable polystyrene, the collar establishes a thermal zone around the perimeter of the entire frame.



Circular ventilation opening



Section through Type K Circular Cavitray

The Type K Circular Cavitray is available in a range of standard sizes as well as being offered on a bespoke basis.

HOW TO ORDER

State circular opening dimension, cavity width, number required and whether an accommodating thermal collar is required.

SPECIFICATION WORDING

Type K Circular Cavitray to circular openings in cavity walls by Cavity Trays of Yeovil

Somerset BA22 8HU (01935 474769).

Fit to frame prior to building-in.

Opening size (mm) x cavity size (mm) x () number.

Accompanying thermal collar x () number.

Request liability/conformity document upon completion.



Elliptical window opening

PRODUCT NAME - GROUP

Type K

CAVITY WIDTHS ACCOMMODATED

From 50mm to 200mm inclusive

DIMENSIONS - OPENINGS

470mm 600mm 630mm 675mm 700mm
750mm 800mm 900mm

BESPOKE OPTIONS

Yes up to 3000mm opening (sectioned)

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes - some applications

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No known incompatibility

ARRESTED WATER EVACUATION

N/A - see Design Considerations

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 - 0.17

THERMAL TRANSMISSION OF INSULATOR

0.034

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Satisfies Building Regulations

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes with compliant insulation types

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Caviweep ventilation/ evacuation may be provided at base if required



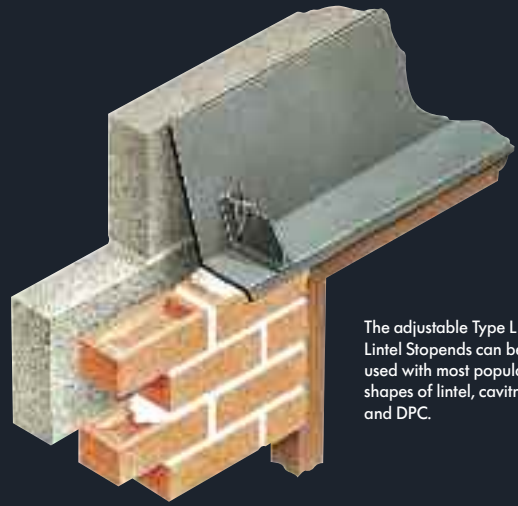
DESIGNERS' COMMENTS

PD 6697:2010 refers to the local spell index of a wall and the need to contain provisions for appropriate resistance to rain penetration. The Type K may be used in all locations satisfying 6.2.72. (rain penetration) and 6.2.73 (categories of exposure to wind-driven rain). Exposures calculated using BS 8104 or based on BRE Report 621 satisfied.

Type L

Lintel Stopends

- Adjusts for secure fit
- Ensures consistent and compliant build detail
- Integral bonding strip in base
- Suits wide range of styles and shapes



The adjustable Type L Lintel Stopends can be used with most popular shapes of lintel, cavity tray and DPC.

USE

Stopends for application onto lintels, DPCs and Cavitytrays to prevent water discharging off ends into cavity.

SOLUTION

Stopends are manufactured from polypropylene and offered in two standard sizes that suit most popular applications. The base of every stopend incorporates a butyl anchoring strip that secures the stopend in place. The usual position is towards each end of the lintel/DPC/tray in the nearest appropriate perp joint, which means the bonding need not be interrupted.

When fitted, discharge of arrested water is directed out of the wall through Caviweeps. The specifier may select from a range of compatible Caviweeps in various colours and style.

The Type L Stopend is offered in two standard sizes: The Type L 90 has a 90 degree upstand and is used with lintels, trays and damp courses rising vertically in the cavity.

The Type L Adjustable Stopend has a concertina arrangement and can service a range of sloping upstands and cavity widths. (Guide: cavities 50mm to 100mm where angled rise is 150mm maximum or cavities up to 150mm where angled rise is 225mm)

BESPOKE STOPENDS

Bespoke stopends are available to suit all shapes of trays, DPC's and lintels.

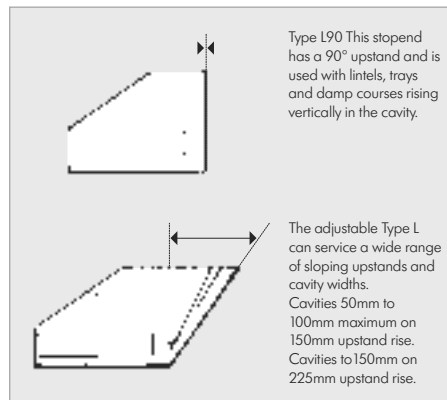
If you have a requirement please forward a dimensioned drawing or sketch of the detail and we will advise the optimum shape, availability and price for your consideration.

HOW TO ORDER

State whether L 90 or L Adjustable Stopend is required x number of boxes containing 50 No. Bespoke sizes: Provide dimensions of profile required.

SPECIFICATION WORDING

Type L90 / L Adjustable stopends by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769). Fit to all open ends of lintels / trays to prevent discharge into cavity. Number (). Request liability/conformity document upon completion.



PRODUCT NAME - GROUP

Type L

CAVITY WIDTHS ACCOMMODATED

50mm to 150mm

DIMENSIONS

Type L 90 – up to 100mm cavity

Type L Adjustable – up to 150mm cavity

BESPOKE OPTIONS

Yes – for greater skin thicknesses or cavity upstands of unusual height / angle

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

No limitation > 105mm thickness

UNDULATING MASONRY FACES

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No known reactions

ARRESTED WATER EVACUATION

Use Caviweeps within arrangement

THERMAL TRANSMISSION OF MATERIAL

N/A

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Packs of 50

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes with compliant insulation types

CAD DOWNLOADS

Yes

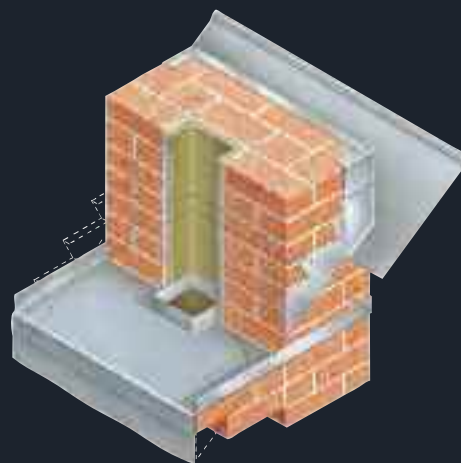
DESIGN CONSIDERATIONS

Do not locate Caviweep and Stopend in same perp joint



Lead Products / Supply

- Standard and bespoke fabrications
- BS EN 12588 material
- Widths to 2400mm (rolls)
- Various lead weights/thicknesses



USE

Lead remains one of the most malleable and durable materials for flashings and weather resistant construction connections. Its longevity makes lead an attractive medium where a building life in excess of the sixty years demanded by Eurocode requirements is sought. We manufacture standard and bespoke products using cold rolled milled lead to BS EN 12588:2006.

Coneslate

The Coneslate is an improved version of the traditional lead slate used whenever a soil pipe penetrates a pitched roof of tiles, slates or contoured roofing sheets. Its tapered sides permit the Coneslate to service a range of roof/pipe angles rather than being suitable for one pitch only. Example: 30° Coneslate has a range of $\pm 10^\circ$ so may be used on roof pitches from 20° to 40°. The tapered sides also make stacking storage possible. Suitable for new and retrofit applications the standard base size is 400mm x 405mm with a sleeve height of 415mm to suit a 100mm diameter.



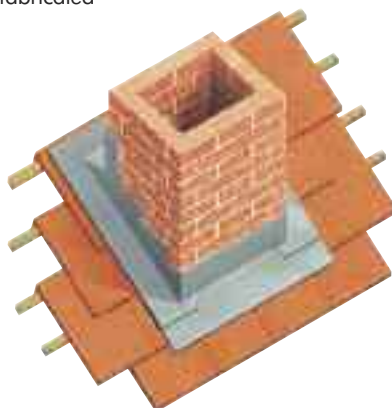
All dimensions can be varied to suit requirements.

Chimney Stack Protection

Stack Packs are offered on a made to measure basis. Front apron, back gutter, side flashings and stack integrity trays at high and low level are



supplied observing LSA guidelines. The normal flashing weight used for stack flashings is code 4 unless otherwise requested. Roll lead is supplied for side flashings, other components are fabricated



Roof Outlets

Roof Outlets with variable base dimensions and 90° drop outlets in a variety of diameters are fabricated to order



Thatched Roof Slate

The Thatched Roof Slate is supplied with an elongated collar that extends through the thickness of the thatch permitting a weather tight integration with the soil pipe above the finished roof level.



Timber Studding Window Flashing

Where a window sits within exterior stud walling, the use of a Stud Wall Window Flashing offers several advantages. Supplied as one unit, it eliminates joints at the vulnerable junctions between frame and studwork. There are no open links and as well as wrapping around the studwork and flashing also returns upwards at the back of the sill. The front apron dresses over the tile hanging or similar.



Decorative

Flashings

Lead flashing is available pre-cut with a decorative edge. The contractor can maintain a consistent appearance throughout a development and eliminate wastage associated with site-cut approaches.



DESIGNERS' COMMENTS

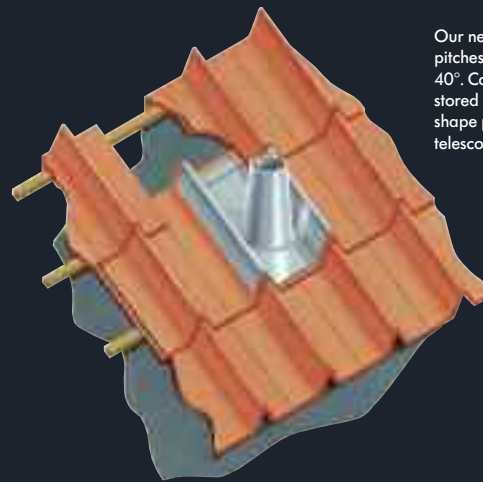
When a roof has two different types of metal present, galvanic or bi-metallic corrosion will take place when those metals become damp or wet. One metal will remain relatively protected, whilst the other suffers accelerated corrosion. Flashings around metal roofs are ideally of the same material as the roofing surface, or of a compatible material / product that is accompanied with supporting documentation. When a roof has two different types of metal present, galvanic or bi-metallic corrosion commonly takes place when those metals become damp or wet. The metals higher on the list will sacrifice themselves for metals lower on the list.

- Zinc/Zinc/aluminium/Aluminium
- Steel
- Lead
- Copper
- Stainless Steel

Thus run off from zinc to copper is tolerable, but not from stainless to zinc.

Lead Products / Supply (continued)

- Standard and bespoke fabrications
- BS EN 12588 material
- Widths to 2400mm (rolls)
- Various lead weights/thicknesses



Our new Coneslate suits pitches from 20° up to 40°. Coneslates can be stored easily as the shape permits telescopic stacking.

CUT SHEET SERVICE / ROLL SUPPLY SERVICE

Pre-cut sheets and pieces are available. We recommend observance of restricting cut sizes to within the maximum lengths and widths recommended by the Lead Sheet Association. Maximum roll size is 2.4metres x 6 metre. Weights available up to code 8.

BESPOKE LEADWORK

Our bespoke service offers made to measure fabrications in a variety of lead weights. We will be pleased to quote. Fixing block weather caps, head flashings and butterfly crossovers are examples.



Chimney stack showing lead work. Also shown at lower level is brickwork corbel where airflow to the roof space is provided via a discreet corbel ventilator – see Ventilation section for details

HOW TO ORDER

Coneslates – state pitch and pipe size and number required.

Bespoke: provide drawings/ dimensions.

Atomic weight:	207.2u
Atomic number:	82
Density:	11.34g/cm ²
Coefficient of linear expansion:	0.0000297 per °C
Thermal conductivity:	34.76W/m°C
Melting point:	327.4 °C

BS EN 12588:2006 Code no	Thickness mm	Weight kg/m ²	Colour code
3	1.32	14.97	Green
4	1.8	20.41	Blue
5	2.24	25.40	Red
6	2.65	30.05	Black
7	3.15	35.72	White
8	3.55	40.26	Orange

SPECIFICATION WORDING

Coneslate to roof pipe penetration or bespoke lead requirements by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769). Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Lead Fabrications

CONESLATE DIMENSIONS

400mm x 415mm base
Pipe diameter 100mm
Pipe height 115mm
Select code 3 or code 4 lead weight
Roof pitch suitability 20° - 40°

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

CONGRUENT WITH OTHER ROOF ELEMENTS

No identified incompatibility

BESPOKE FABRICATIONS

Yes

MATERIAL

Lead to BS EN 12588:2006
Lead weights code 3,4,5,6,7.

COLOUR

Natural lead grey

REGULATION COMPLIANCE

Yes

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Lead surface water run-off can mark some finishes – draw attention to material finishes if appropriate



DESIGNERS' COMMENTS

PD 6697:2010 stipulates lead used for flashings and weatherings must be not less than 1.8mm thick and manufactured to BS EN 12588. This is the standard and minimum thickness used in all our products with options of other lead thicknesses up to code 8 @ 3.55mm.

Type LTT

Level Threshold Tray (Threshold Isolation Tray)

- Isolates damp masonry
- Easy interfacing of horizontal and vertical arrangements
- Increases flooring and insulation options
- Standardised protection detail ensures integrity



USE

To protect level thresholds against damp and ensure the adjacent vertical closing and oversite membrane maintain protective integrity at the point of convergence.

SOLUTION

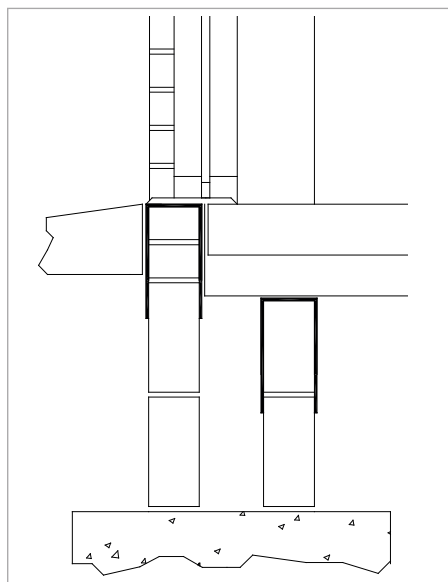
The Type LTT Level Threshold Tray encapsulates the opening masonry exposed to damp penetration or subject to damp infusion. In so doing the transmittance of damp from the exterior skin inwardly or from the inner skin upwardly is prevented and the flooring arrangement can safely integrate.

Manufactured from solid DPC polypropylene, the Type LTT is available in a range of sizes to suit the masonry dimensions of all standard openings. A bespoke service operates for non-standard sizes.

When bedded on the exterior skin, the Type LTT acts a threshold DPC and extends downwardly over both faces of the masonry. At either end of the tray the protection rises, and wraps around the reveal faces including into the cavity. The positioning is identical on the inner skin, although the level of placement is commonly lower.

The Type LTT permits flooring, insulation and DPCs / membranes to continue over an inner skin and converge with an exterior skin that itself is isolated from dampness at the point of convergence.

The oversite membrane is able to terminate against the downward projecting face of the Type LTT whilst the vertical closers to each side of the opening positively interface as shown.



(Notching the closer face permits it to continue downwardly below the Type LTT level, so it terminates below opening level in the usual manner)

Whether the Type LTT is incorporated in the outside skin only or in both skins is determined by the specific construction and flooring arrangement and the damp isolation sought to ensure appropriate integration of all horizontal and vertical elements.

PRODUCT NAME - GROUP

Type LTT

CAVITY WIDTHS ACCOMMODATED

All – width does not affect functionality

DIMENSIONS

Available to suit all opening dimensions with 105mm thickness masonry skin
Other skin thicknesses available

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

Split/variable style compatibility limited

UNDULATING MASONRY FACES

Depends on extent of deviation

CONGRUENT WITH OTHER WALL ELEMENTS

Designed for Cavicloser accompaniment

ARRESTED WATER EVACUATION

N/A - no horizontal arrestment

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes See Designers' Comments

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes with compliant insulation types

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Insulated sleeve may be introduced between adjacent Type LTTs – see range under Acoustic / Fire Sleeves.

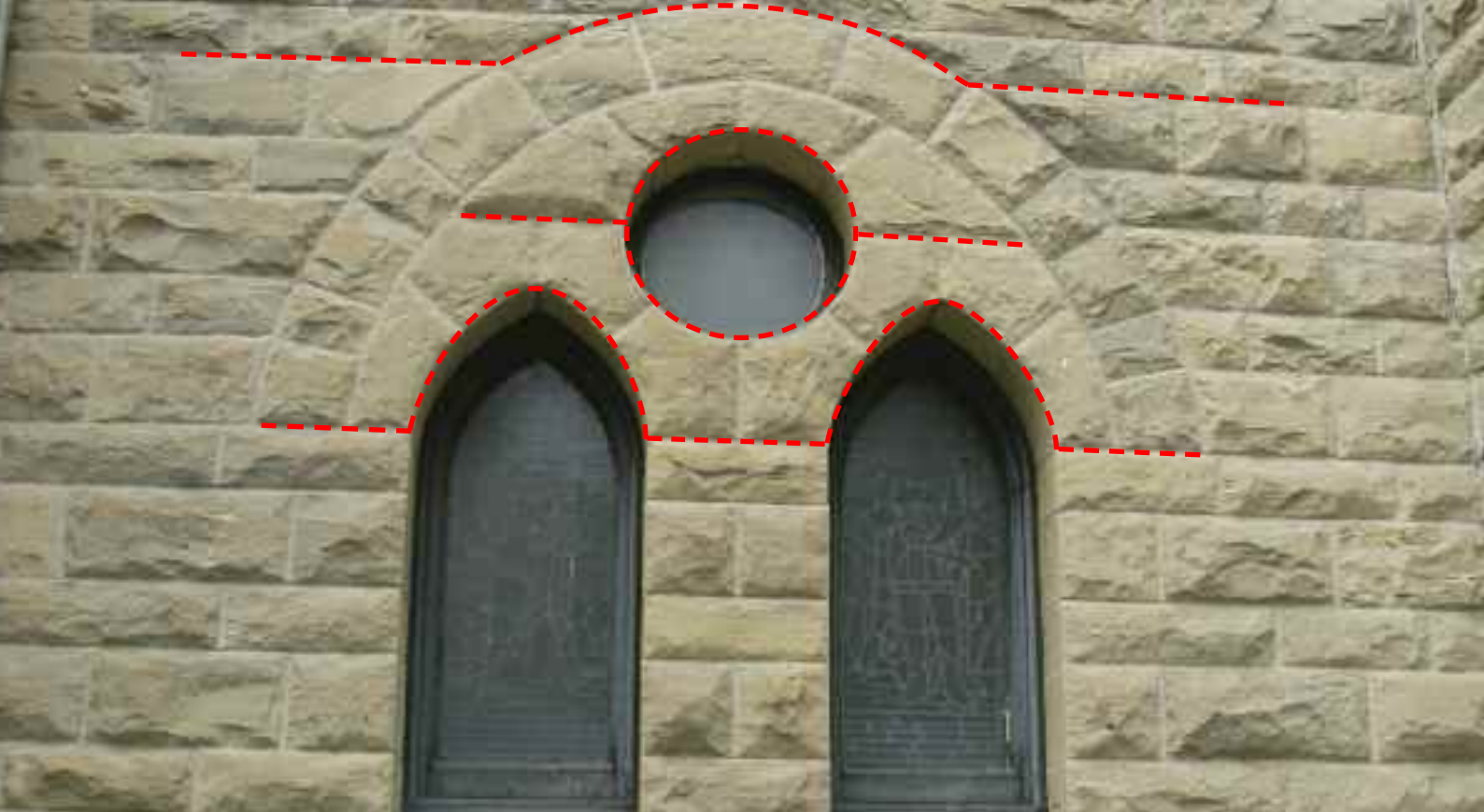
DESIGNERS' COMMENTS

The British Standard released in December 2009. BS 8102 provides the Code of Practice for the protection of below ground structures against water from the ground. Section 6.2 states waterproofing protection falls into three classifications: 1. Barrier protection. 2. Structurally integral protection. 3. Drained protection.

The Type LTT Level Threshold Tray whilst technically a cavity wall DPC, performs two levels below and above ground. In so doing it embraces the qualities of 1 + 2 + 3, promoting combined protection as highlighted in BS 8102, 6.2.2. Cavity masonry is able to drain conventionally yet be isolated against damp transference whilst permitting interfacing with the adjacent structure.

Where radon or methane gas is present, a different style of LTT is available that additionally closes the cavity and links with adjacent cavity barriers.





ONSITE INSIGHT

Saturation Imbalance

The gravitational accumulation and uneven distribution of penetrating water within an area affecting converging structural features

When considering the damp protection in and around multiple arched openings, it is important to consider the proximity of each arch with the next and the arch locations within the elevation. What is above and what is below each opening?

Penetrating rain that permeates storeys rising above an arch will gravitate and eventually reach arch tray level. It will then flow around the arch. If the expanse of masonry above is extensive, the flow can be considerable on the basis up to 2.5 litres of water per sq metre per hour can permeate in severe conditions once saturation point is reached.

Where arches are close to one another or link, arrested water will be flowing into converging areas where opportunity to discharge out of the structure is restricted. This is not ideal and can be quite problematic if solid piers or mullions exist, or the arrangement has little or no cavity.

We recommend the whole elevation is reviewed to identify possible saturation imbalance. The objective being to minimise or redistribute and control gravitating water volumes.

This is normally achieved by incorporating an arresting barrier(s) at higher level. The barrier arrests the flow and redirects it, discharging it via caviweeps located further along the barrier beyond the arch positions under. The arresting barrier may be horizontal or curved, and acts as an umbrella so everything under it is relatively sheltered. Thus the flow reaching the arch level and the restricted areas of masonry is minimised.

The example shows a combination of three products used to protect the openings where the masonry between circular window and arches was identified as the most vulnerable.

Type Q arresting barrier at the highest level + Type K circular opening tray below it + Type BA barrier arches at the lowest level.

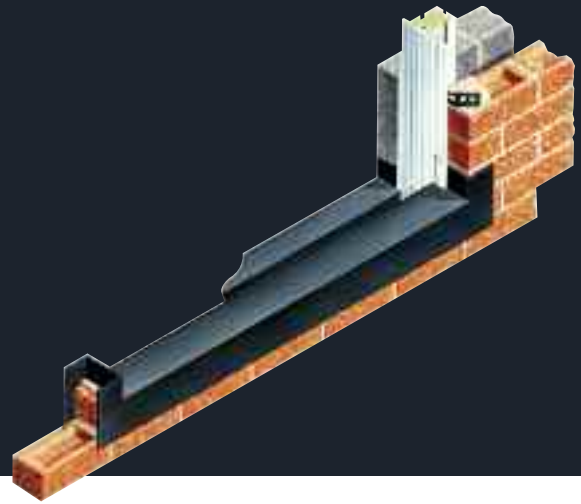
Note the projecting wings from the circular tray direct water discharge to the far sides of the arches. This management approach achieved a 85% reduction in permeation flow to the protected area.

Saturation imbalance affects other areas too – we will be pleased to advise.

Type LTT (continued)

Level Threshold Tray (Threshold Isolation Tray)

- Isolates damp masonry
- Easy interfacing of horizontal and vertical arrangements
- Increases flooring and insulation options
- Standardised protection detail ensures integrity



On the external face the downward projecting section can be left in place and will be hidden by any close-finishing ramp/entry path. The reveal wraps may be trimmed to visually suit. Alternatively the section may be removed, leaving just a small protective bedding lip (as highlighted in BS 5628).

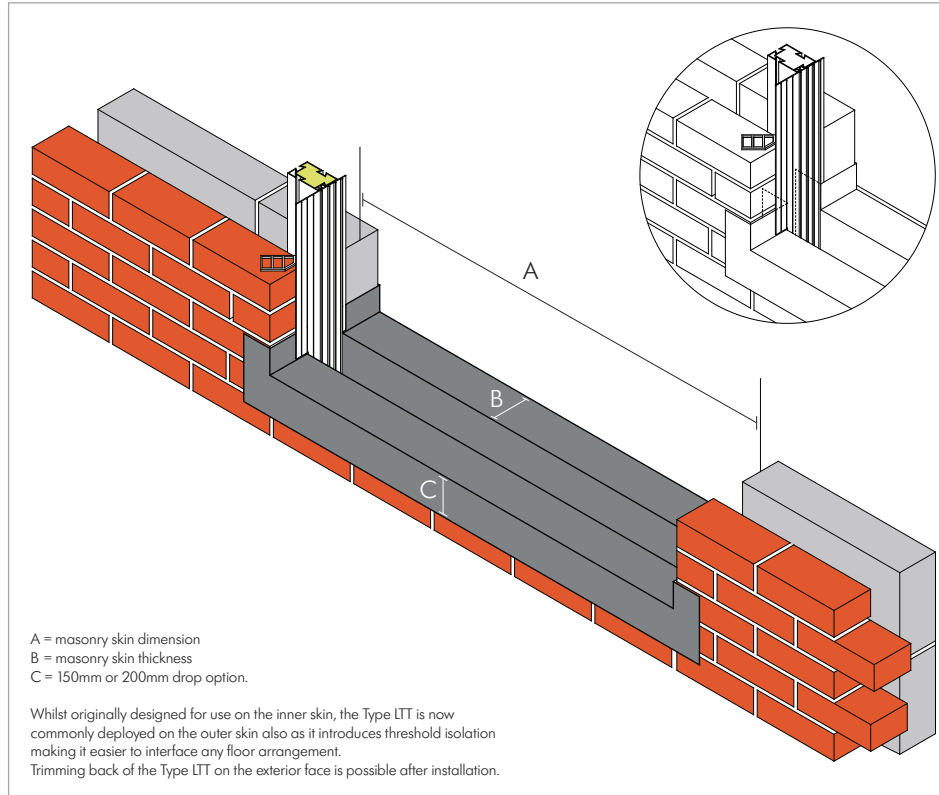
Type LTT Level Threshold Tray dimensions usually remain constant except the dimension to suit the actual opening. In some applications the specifier may elect to increase the dimensions of the downward projections to suit certain flooring details.

HOW TO ORDER

Advise masonry to masonry opening dimension + skin thickness. State whether downward projections should be increased in size. Bespoke: provide all measurements.

SPECIFICATION WORDING

Type LTT Level Threshold Tray to all inner / outer skins of all thresholds by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769). Request liability/conformity document upon completion.



PRODUCT NAME - GROUP

Type LTT

CAVITY WIDTHS ACCOMMODATED

All – width does not affect functionality

DIMENSIONS

Available to suit all opening dimensions with 105mm thickness masonry skin
Other skin thicknesses available

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

Split/variable style compatibility limited

UNDULATING MASONRY FACES

Depends on extent of deviation

CONGRUENT WITH OTHER WALL ELEMENTS

Designed for Cavicloser accompaniment

ARRESTED WATER EVACUATION

N/A - no horizontal arrestment

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes See Designers' Comments

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes with compliant insulation types

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Insulated sleeve may be introduced between adjacent Type LTT's – see range under Acoustic / Fire Sleeves.



DESIGNERS' COMMENTS

Where Type LTT Level Threshold Trays are incorporated there is the opportunity to insert an acoustic stop and thermal barrier in the cavity. This can maximise thermal integrity. The requirements of NHBC sill DPC provision (6.1) can be satisfied and the perimeter insulation requirement enhanced rather than diminished across the opening.

Type M Cavitytray

For use over meter boxes

- Self-supporting upstand adjusts to cavity widths
- Traditional or timber frame construction
- Unobstructed cavity compartment area
- Ensures compliance with guidance standard



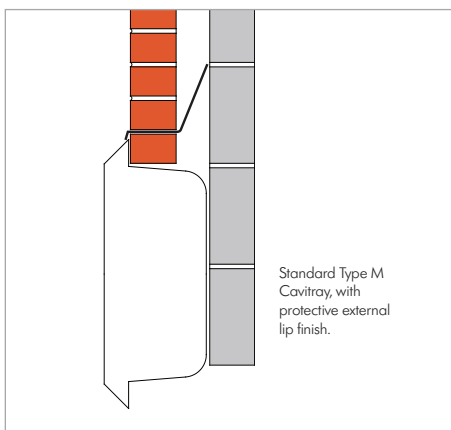
Type M Cavitytray for use over meter boxes.

USE

To provide protection against damp where a standard meter box impinges the cavity and services enter.

SOLUTION

The Type M Cavitytray provides horizontal protection against damp penetration where a cavity wall accommodates an electricity or gas meter consumer supply unit.



The Type M Cavitytray is manufactured from polypropylene and supplied with a hinged cavity upstand that adjusts to protect the cavity width encountered. Water discharge off the ends of the Type M is prevented by the application of Type L Stopends. Evacuation of water is instead directed through Caviweeps located in perp joints.

The Type M Cavitytray does not require building into the inner skin that therefore remains unpunctured.

HOW TO ORDER

State number and size required.

SPECIFICATION WORDING

Type M Cavitytray over meter boxes by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Type M

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 160mm

DIMENSIONS - LENGTHS

600mm or 800mm

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT / REMEDIAL APPLICATIONS

See Type E

MASONRY SKIN STYLES

Trays available for all styles

UNDULATING / SPLIT MASONRY FACES

Usually compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Individual / 400gms

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Yes

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Upstand positioned against inner skin provides optimum protection where cavity insulation is present

DESIGNERS' COMMENTS

NHBC Standards have qualified that where a meter box is not protected by a roof at an appropriate level a DPC tray should be provided. This is supported by BS 5628 and the recently released PD 6697:2010 that qualify cavity wall design should be based on the assumption that water penetrates the outer leaf of the wall, even if it is rendered.



Masonry Support

Cavitrays Systems



- Maximises DPC protection against water ingress
- Pre-shaped to match support system
- Consistent shape and build detail
- Clear cavity compartment area

USE

To provide DPC protection where masonry rises off a metal support system.

SOLUTION

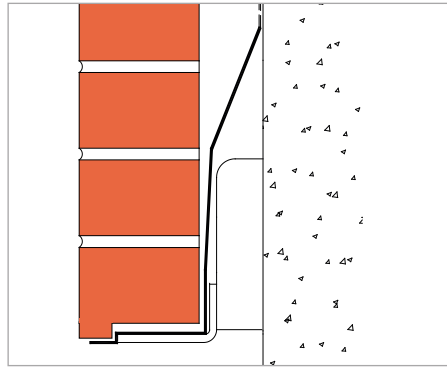
When constructing off a masonry support system, the DPC is commonly incorporated at a higher level than is ideal. This is because of the difficulty in bringing together and maintaining a consistently profiled relationship using roll material on steel. The DPC protects, but does not protect to the maximum extent. Water remains able to ingress into the steelwork.

Masonry Support Cavitrays are semi-rigid DPCs supplied preformed in ready-to-use lengths. They are specifically designed to integrate with whatever masonry support system is being used. Cavitrays locate onto the steelwork, thus affording full protection. Trays are self-supporting within the cavity and usually secured against the inner skin using accompanying Cavistrap.

Where pistol bricks are used the base incorporates double fold so installer can flex to suit and accommodate downward projection of brick front.

Paradoxically, if building in several courses higher is considered acceptable because the specific choice of metal support system is appropriately resistant to water tracking, the Cavitrays system can still be deployed at this higher level, and the benefits of promoting a preformed consistent shape used to advantage.

Adjoining lengths and mitred angles are readily linked using sealing strip. Stopends and special fabrications are available to complement the system.



HOW TO ORDER

Submit drawings for profile and application suitability. Schedules will be prepared. Alternatively state specific profile you require.

SPECIFICATION WORDING

Masonry Support Cavitrays System by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

For use where external masonry skin rises off masonry supports.

Measured run in metres ()
Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Masonry Support Cavitrays System

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 150mm

DIMENSIONS

Lengths @ 2440mm

Profile dimensions vary to suit support system type and cavity width.

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

N/A

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No

MASONRY SKIN STYLES

Most with pistol or full base on steel

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

Analysed during bespoke preparation

ARRESTED WATER EVACUATION

Via Caviweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible – 0.15 – 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Varies pending design

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Analysed during bespoke preparation

CAD DOWNLOADS

Yes

DESIGNERS' COMMENTS

The Masonry Support Cavitrays was originally jointly developed with Ancon. It was identified the preformed Cavitrays offered parallel running with the angle of the steel support bracket, and this made it possible to maximise the extent of the cavity compartment area without distortion. In comparison, roll material can misshape if brackets deflect at intervals. Water evacuation via Caviweeps provides opportunity to ventilate the cavity – and so doing aids the equalising of the pressure differential in the cavity that in turn influences the masonry receptiveness to water penetration. Compatible Caviweep presence promotes wet masonry to discharge and dry out rather than remain damp. Thus the likelihood of water retention and discolouration banding can be minimised.



Type P

Cavitray for Parapet Walls

- DPC integrity regardless of wind direction
- Enhanced parapet structural stability
- Takes up cavity variances
- Unobstructed cavity compartment area

Type P Cavitray shown here with Type J under coping.



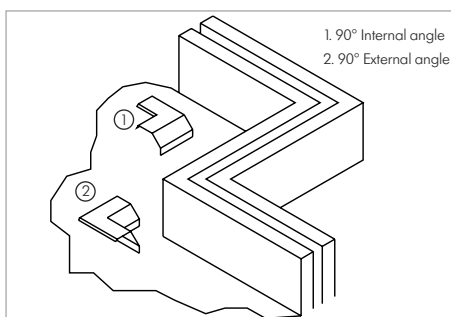
USE

To provide protection against damp penetration where a parapet wall rises above roof level.

INTRODUCTION

Both skins of a parapet wall are outer skins, and accordingly accept moisture. The purpose of the Type P Cavitray is to arrest water penetrating the exposed exterior 'inboard' skin of the parapet before it becomes an internal wall below the roof level. The Type P is a horizontal DPC, manufactured from semi-rigid polypropylene. Supplied in preformed lengths and angles, the Type P permits parapet protection to be consistently established to provide a long service life.

The traditional approach to protecting parapets necessitates a DPC built into one skin crossing the cavity at an angle and being supported in the skin opposite. This weakens the structural arrangement. In contrast the Type P is self-supporting and requires building into one skin only. Accordingly the structural stability of the parapet is enhanced.



Type P Cavitray lengths and angles require bedding in mortar and adjoining sections glove lapped 150mm. A lead flashing positioned as detail under the inboard lip should be incorporated when the Type P is installed.

When the parapet is completed, water originating from the skin adjacent to the roof is directed to converge with water penetrating the parapet's outer skin where it gravitates in the normal manner.

HOW TO ORDER

State number of lengths and angles allowing for 150mm laps. Alternatively submit drawings for us to schedule.

SPECIFICATION WORDING

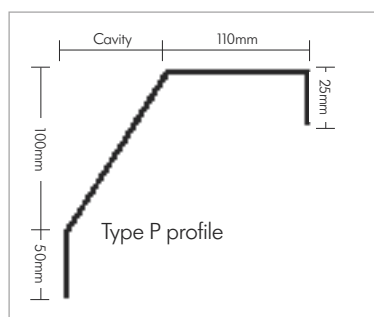
Type P Parapet Cavitray by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Build in all horizontal parapet/roof intersections.

Measured run in metres ()

Angles internal () Angles external ()

Request liability/conformity document upon completion.



DESIGNERS' COMMENTS

Early British Standards showed the DPC in a parapet stepping inwardly. Cavity Trays Ltd submitted evidence that showed an outward step was safer and eliminated the opportunity for penetrating water to track on the underside of the DPC towards masonry that had become internal. Subsequent Standards were changed and illustrated the profile we advocated.

The new PD 6697:2010 illustrates the correct outward stepping profile (page 47) but the specification on page 46 contradicts advising stepping 'towards the inner or outer part of the wall'. We suspect it was not intended to suggest both options are appropriate and reference to an inward sloping arrangement should be deleted from PD 6697:2010? An inward-sloping profile can support water under-tracking following settlement along the bedding course and is unacceptable within any parapet.

PRODUCT NAME - GROUP

Type P

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 175mm

DIMENSIONS

2440 x 25 lip x 110 x 150mm drop

Angles 450mm x 450mm

Allow 150mm glove lap to join

BESPOKE OPTIONS

Yes - all skin & construction variances

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Modified version

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Necessitates parapet rebuilding

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Yes - but inboard face must be aligned

CURVED WALL ON PLAN APPLICATIONS

Yes - see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Cross-cavity deflection / gravitation

THERMAL TRANSMISSION OF MATERIAL

Negligible - 0.15 - 0.17

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Flashing must be able to drop vertically and unhindered. Consider increasing the base and lip dimensions if an alternative flashing style is used.

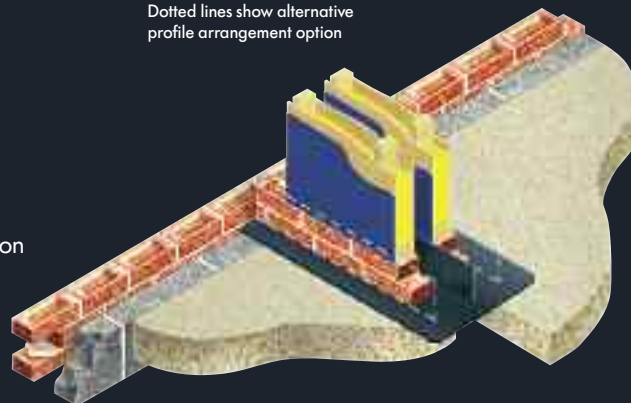


Type PWRB

Party Wall Rising Barrier

- Provides barrier in party wall against adjacent property water contamination
- Acts as DPC at base of wall
- Acts as radon & methane barrier within party wall
- Provides NHBC preventative provision between dwellings
- Permits interfacing with perimeter wall gas barriers

Dotted lines show alternative profile arrangement option



USE

Robust Details and the NHBC provide guidance on how to prevent internal flooding in one dwelling affecting an adjoining dwelling via the separating wall. The Type PWRB provides an alternative approach that is more effective and easier to incorporate.

SOLUTION

Forming a channel in the concrete to coincide with the cavity in the separating wall can be labour intensive and the resultant detail offers limited capacity to accommodate water-wash. The channel also needs to discharge water off its ends, and that entails reaching the cavity of the adjacent exterior walls - normally at right angles. If (gas) cavity barriers exist in the external walls because the property is constructed on contaminated land, they are in the way and discharge cannot take place.

The Type PWRB Party Wall Rising Barrier acts as a DPC and extends under both skins of the separating/party wall. The upstand of the Type PWRB acts as a dam against water flooding in one dwelling from contaminating the adjoining dwelling and its upstand is capable of controlling a far greater volume of water than a channel. Because functionality is achieved by rising in the cavity rather than descending (as with a concrete

channel) it can interface with the levels at which contaminated land cavity barriers are commonly installed in the external walls. Water can safely discharge and gas tight integrity be maintained.

The Type PWRB is supplied in long lengths and bespoke sizes are available in addition to the standard dimensions. Insulation bonded to one face is an additional option.

ADVANTAGE

The Type PWRB Party Wall Rising Barrier can be supplied with two upstands rather than one, in dimensions to suit all cavity party/separating walls where water arrestment at the exterior face is desired. Moving the protection plane away from the centre of the wall to the faces departs from the RB an NHBC approach but has the advantage of reducing potential water damage in the event of an accident.

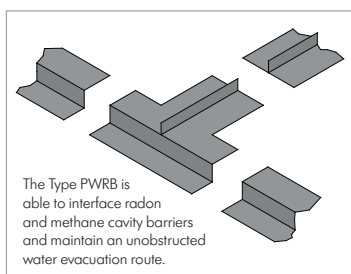
HOW TO ORDER

State number of lengths allowing for 150mm laps.

SPECIFICATION WORDING

Type PWRB Party Wall Rising Barrier by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Bed and incorporate within separating walls between dwellings. Measured run in metres ()
Request liability/conformity document upon completion.



DESIGNERS' COMMENTS

Consider use in raft construction depicted in Robust Details E-WT-4.7. Eliminates requirement to form shallow channel and cannot easily be breached by water wash. The junction of a separating wall with an external cavity wall will usually contain an additional obstacle - a vertical acoustic / fire cavity stop to comply with legislation. It is important its presence does not obstruct the intended discharge route servicing the separating wall. Cavity Trays Ltd offers two styles of vertical acoustic / fire stop that permit compatible interfacing and maintain the water exit path. See Section dealing with Acoustic and Fire Stops and Barriers.

PRODUCT NAME - GROUP

Type PWRB

CAVITY WIDTHS ACCOMMODATED

All - functionality unaffected

DIMENSIONS

2400 x 500 x 150mm rise

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No

CAVITY TIMBER SEPARATING WALL

Compatible

CAVITY MASONRY SEPARATING WALL

Compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No identified exceptions

ARRESTED WATER EVACUATION

Off ends to exterior wall cavity/drainage

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Functionality not affected

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Consider presence of vertical fire and acoustic stops at external wall junctions - see Designers' Comments.

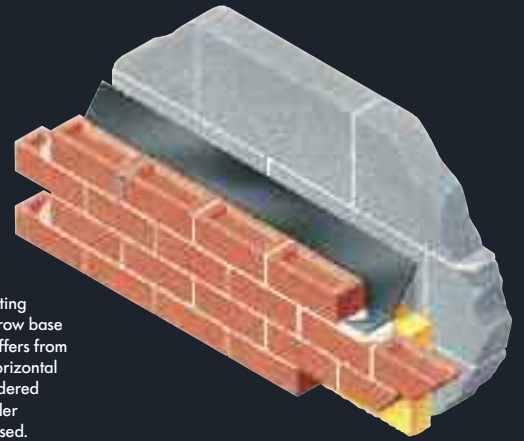


Type Q

Arresting Barriers

- Traditional or timber frame construction
- Accommodates cavity widths variance
- Rigid profile eliminates sagging or misplacement
- Clear cavity compartment area

The Type Q Arresting Barrier has a narrow base dimension and differs from a conventional horizontal Cavity Tray. In a rendered wall a special wider version must be used.



USE

To arrest water-wash within the cavity and thus minimise water penetration impact to specific areas or features.

SOLUTION

The function of Type Q Arresting Barriers is to invisibly arrest and reduce water-wash. The area of wall below barrier level is still damp and receptive to rain penetration, but the accumulation of water gravitating from above is lessened. Influencing and controlling water volumes within a wall in precise locations can stabilise impact and demands on adjacent protective measures.

Type Q Arresting Barriers are manufactured from semi-rigid Polypropylene DPC with a Secutex textured finish. Barriers do not extend through the full depth of a skin but stop short of the external face so there is no visual presence. Barriers are manufactured to suit specific cavity widths but do offer some flexibility to tolerate impingements within the cavity. Barriers are not suitable for use with flashings.

Type Q Arresting Barriers are commonly used in gable ends where the cavity insulation terminates at the adjacent plate level, so protection along the top of the insulation across the gable is necessitated. Arrestment of water prior to mullions, stone or solid features within a cavity wall is recommended to minimise saturation potential, especially if those features introduce and funnel the disbursement opportunities because of piers, arches or opening proximities.

HOW TO ORDER

Standard- State cavity width required and number of lengths allowing for 150mm laps. Advise any requirement for angles.

Bespoke – Advise profile required, dimensions, cavity width and number of lengths, allowing for 150mm laps. Advise any requirement for angles.

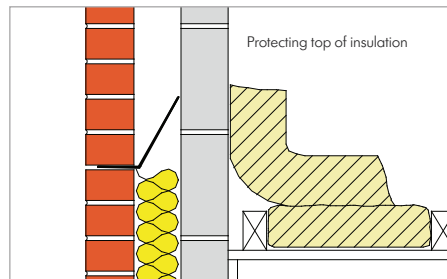
SPECIFICATION WORDING

Type Q Arresting Barrier by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Bed and incorporate within exterior skin where scheduled.

Measured run in metres () Angles ()

Request liability/conformity document upon completion.



DESIGNERS' COMMENTS

All externally rendered walls will suffer fissures and cracks as a consequence of expansion and contraction during the lifetime of the structure. Always provide rendered walls in which Arresting Barriers are incorporated with a means for water to escape. Failure to do so can result in water 'banding' and eventual spalling as a consequence of freezing temperatures. See discreet range of Caviweeps that provide functionality with minimal visual impact. Where structures exceed 12 metres in height consider use to introduce equilibrium – BS 5262. 6.2.74.2.8. Appropriate damp-proofing measures should be taken where recessed band courses create corresponding intrusions into the cavity – PD6697.

PRODUCT NAME - GROUP

Type Q

CAVITY WIDTHS

50, 75, 85, 100, 125, 150mm

DIMENSIONS

2440mm x 75mm x 150mm rise

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No – see Type E

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACE

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

JOINTING METHOD

150mm glove lap

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Select Caviweeps from range offered

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes

MAY BE USED IF CAVITY INSULATION PRESENT?

Insulation should not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

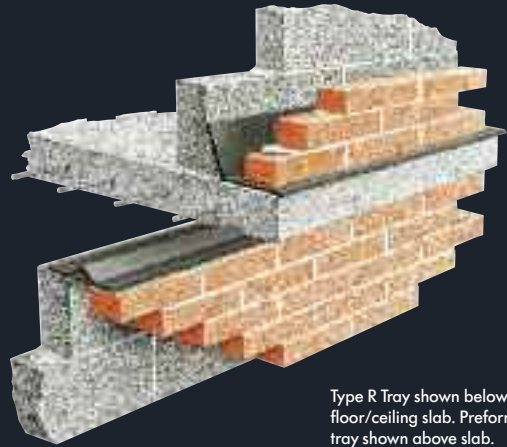
Rendered walls must incorporate evacuation provision - Designers' Comments



Type R

Horizontal Cavity Closing and Water-check Tray

- Integral shuttering formwork and closer
- Introduces water-check
- Lengths and angles for immediate installation
- Promotes consistent build detail



Type R Tray shown below floor/ceiling slab. Preformed tray shown above slab.

USE

To horizontally close open cavity to permit insitu concrete pouring.

To apprehend water ingress.

SOLUTION

The Type R Cavitray is a robust moulded profile manufactured from solid DPC designed to be spot bedded horizontally along an open cavity prior to insitu concrete floor pouring. The Type R closes the cavity top and prevents the concrete from entering the cavity. It remains enveloped within the construction.

The shape of the Type R Cavitray introduces a water-check throat. This is established to the underside of the floor where it spans the cavity. It prevents rain tracking on the underside – a condition that can occur if expansion and contraction cracks eventually manifest externally where exterior concrete and masonry meet. The

throat side similarly acts as an upstand. The dimensions of the Type R Cavitray do not extend it through the entire wall thickness but stop a distance from the finished face, permitting soft jointing to the structural arrangement in accordance with best practice. Bespoke sizes manufactured.

HOW TO ORDER

Standard – state R1 or R2 size and number of lengths.

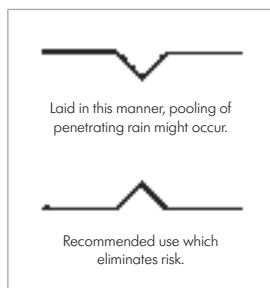
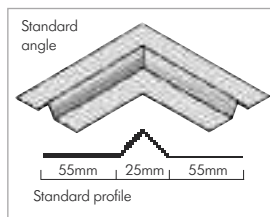
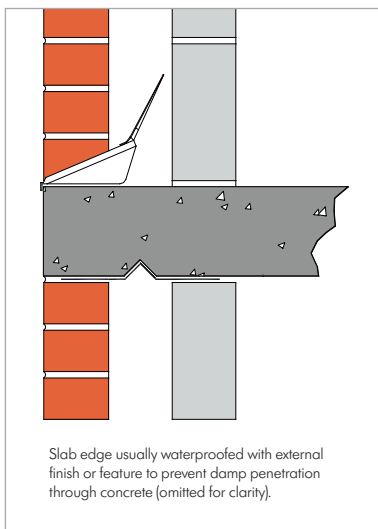
Bespoke – advise dimensions of construction.

SPECIFICATION WORDING

Type R Horizontal Closing and Water-Check Cavitray by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Bed to horizontally close open cavities prior to insitu concrete pour.

Request liability/conformity document upon completion.



PRODUCT NAME - GROUP

Type R Horizontal Closing Tray

CAVITY WIDTHS

R1 up to 75mm

R2 up to 100mm

DIMENSIONS

R1 2440mm x 135mm

R2 2440mm x 165mm

BESPOKE OPTIONS

Yes

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

N/A

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

No

MASONRY SKIN STYLES

Type R requires level bedding

UNDULATING MASONRY FACE

Compatible

CURVED WALL ON PLAN APPLICATIONS

No

JOINTING METHOD

200mm glove lap

CONGRUENT WITH OTHER WALL ELEMENTS

No known reactions

ARRESTED WATER EVACUATION

N/A no downward arrestment

THERMAL TRANSMISSION OF MATERIAL

N/A

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE / WEIGHT

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

To maintain dry inner skin status

MAY BE USED IF CAVITY INSULATION PRESENT?

Insulation should not affect functionality

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Always consider water arrestment and evacuation provision to slab top – see Cavitray Type G.



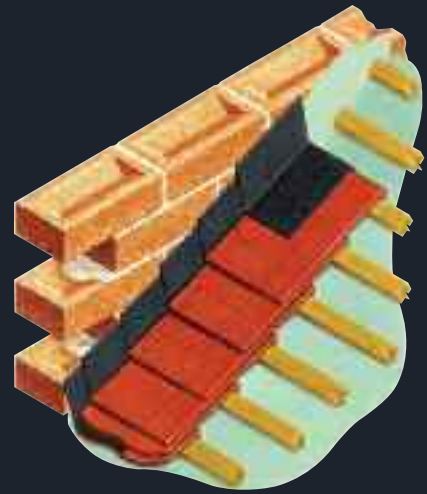
DESIGNERS' COMMENTS

Trays must step down towards the external leaf not less than 150mm. Numerous lintels also act as a DPC but where these are less than 150mm in height (commonly many are 140mm) they do not technically satisfy the damp protection requirements demanded in Building Regulations Part C and British Standards unless accompanied with additional DPC protection providing the minimum dimension stipulated.

Type S

Soaker Units

- Preformed ready to use
- No incompatibility – inert material
- Full rise upstand
- Economical lead alternative



USE

Pre-shaped soaker for use only with plain tiles where the roof abuts a wall.

SOLUTION

Type S Soakers are preformed moulded units manufactured from lightweight high density polypropylene. Soakers are termed 'dry units' as they are incorporated when the tiles are laid and do not require any accompanying wet trade working.

Type S Soakers are designed to be used with plain tiles only and are handed. When positioned in accordance with best practice the vertical 75mm upstand rises tightly against the masonry providing a uniform medium over which flashings may be dressed.

The base of each soaker extends 100mm under the tile and permits easy interleaving with the turn-down portion at the top of each closer aiding positive placement.

The upper run-off surface of each soaker has a smooth finish with a textured underside that rests on the tile surface.

HOW TO ORDER

Advise number of LH packs and RH packs of soaker.

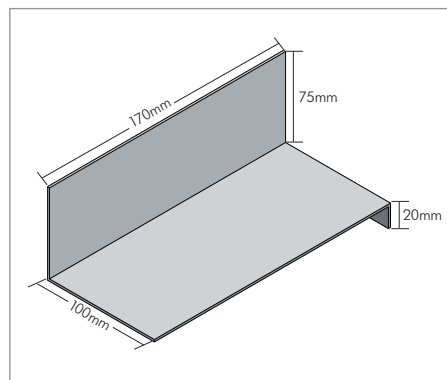
Bespoke – state dimensions required, number and handing.

SPECIFICATION WORDING

Type S Soaker Units by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Interleave with plain tiles to all roof/wall abutments.

Request liability/conformity document upon completion.



PRODUCT NAME - GROUP

Type S Soaker Units

DIMENSIONS LH & RH UNITS

170mm x 100mm x 20mm turn down x 75mm upstand (handed)

BESPOKE OPTIONS

Some options

TRADITIONAL PLAIN TILE COMPATIBLE

Yes

INTERLOCKING TILE COMPATIBLE

No

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

Entire upstand must rise vertically tight against skin smooth masonry skin.

UNDULATING MASONRY FACES

Not compatible

CONGRUENT WITH OTHER WALL ELEMENTS

No identified reactions

THERMAL TRANSMISSION OF MATERIAL

N/A

MATERIAL

Polypropylene DPC - 1mm

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Packs of 50

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

As part of abutment weatherproofing

CAD DOWNLOADS

No

DESIGN CONSIDERATIONS

Provides consistent upstand over which flashings from Type X gable abutment trays can dress

DESIGNERS' COMMENTS

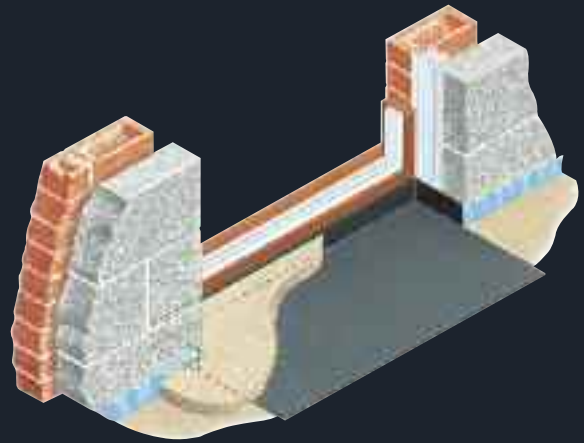
Type S Soaker Units may be used with all popular flashing materials. There is no reaction when in contact with the polypropylene used to manufacture the Type S Soaker. Particularly appropriate where aluminium flashings are used, as conventional lead soakers will react with aluminium and airborne salt in coastal locations and create caustic run-off.



Type TST

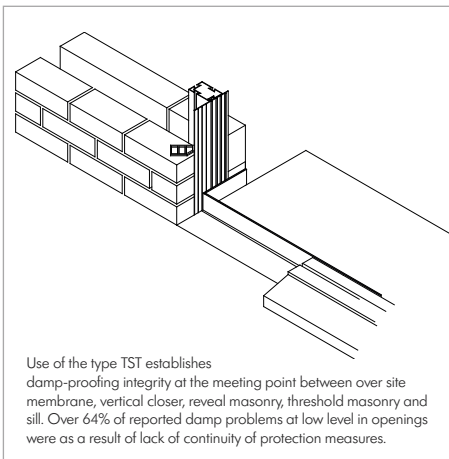
Threshold and Sill Overlay Tray

- Standardised ready-shaped solution for openings
- Ensures continuity of oversite membrane protection
- Not susceptible to misplacement or damage



USE

To alleviate damp protection shortfall at door openings where horizontal and vertical DPCs merge.



Use of the type TST establishes damp-proofing integrity at the meeting point between oversite membrane, vertical closer, reveal masonry, threshold masonry and sill. Over 64% of reported damp problems at low level in openings were as a result of lack of continuity of protection measures.

SOLUTION

The Type TST Tray is a moulded three-sided DPC overlay tray designed for use at door openings. It is positioned on the oversite prior to the laying of the screed. Its function is to ensure the damp external skin masonry and the vertical closing DPCs are isolated from and cannot connect with the screed. The Type TST ensures a protective layer exists against the reveals and the sill.

The base of the Type TST Tray is enveloped under the screed for the full width of the opening and provides an effective extension of the oversite membrane. It addresses localised DPC and membrane misplacement and aids regularisation of damage to these mediums that commonly occurs through foot traffic during the course of construction.

Where sills of low or minimal rise are incorporated, it can be particularly beneficial in establishing a positive interfacing.

The Type TST Tray provides the house builder with a means of constructing every door opening with the damp protection integrity intended and is used by some as a means of quality assurance control.

HOW TO ORDER

Standard – state masonry to masonry opening dimension.

Bespoke – advise dimensions of Type TST you require.

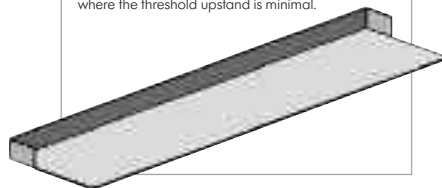
SPECIFICATION WORDING

Type TST Threshold Tray by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Incorporate at all door openings prior to laying screed.

Request liability/conformity document upon completion.

The Type TST Tray is available in dimensions to suit all popular two-leaf patio door openings where the threshold upstand is minimal.



PRODUCT NAME - GROUP

Type TST

DIMENSIONS - STANDARD POPULAR WIDTHS

910mm, 932mm, 980mm, 1010mm, 1200mm, 1500mm, 1810mm, 2400mm

DIMENSIONS - STANDARD DEPTH – INBOARD

485mm (can be trimmed)

DIMENSIONS – SILL UPSTAND

115mm (can be trimmed)

DIMENSIONS - REVEAL UPSTAND

175mm (can be trimmed)

BESPOKE OPTIONS

Yes – all sizes can be chosen

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes if access possible

MASONRY SKIN STYLES

No known limitation – flat finishes

UNDULATING MASONRY FACES

Reveal faces must be flat

CONGRUENT WITH OTHER WALL ELEMENTS

Subject to specification check

ARRESTED WATER EVACUATION

None – barrier function only

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

To aid correct status



DESIGNERS' COMMENTS

The original BRE investigation of traditional housing identified 955 faults and 11th on the list was missing/faulty damp courses to door sills and thresholds. Textbook methods do not take into account damage that occurs to membranes left protruding especially at door openings and in particular where the vertical element interfaces. The Threshold overlay tray can re-establish the intended arrangement when incorporated at openings and is used by leading house builders as a means of maintaining trouble-free consistency of construction.



ONSITE INSIGHT

Diminished Gable Wall Integrity?

The top triangle of masonry of a gable wall must resist wind suction and be properly tied to the roof trusses. Paragraphs 2C36 and 2C37 of the Approved Document Part A of the Building Regulations refer, and depict tension straps at specified centres tying the top of the gable wall and also the bottom of the roof trusses.

Where cavity insulation is present within a gable wall it is common for it to terminate horizontally at plate level. Thus the gable triangle of masonry rising up to the ridge level is not insulated.

This construction approach requires the top of the insulating medium to be protected so it cannot act as a bridge via which rain penetrating the masonry can track inwardly to the inner skin. This also applies when a cavity acoustic or fire barrier runs horizontally within a cavity – the top of the barrier must be protected. (This arrangement is explained clearly within the NHBC Standards – 6.2 S8).

The shortcoming is that dpc incorporated horizontally in the conventional way to protect this detail can adversely affect the structural stability of the gable triangle of masonry.

Traditionally roll dpc is used that requires support and is therefore built into both the inside skin and outside skin. Its presence means the triangle of masonry above is without the benefit of uninterrupted mortar bond. The highest area of masonry that is most vulnerable to wind suction is effectively separated – it rests on dpc.

The alternative approach using a Type CD Cavity Dropcloak leaves the entire outer skin and the majority of the mortar bed of the inside skin uninterrupted. The triangle of masonry forming the high level gable end is not isolated on dpc. Structural integrity is not diminished but enhanced.

BRE GBG 44 Part 2

‘Cavity trays should be provided above cavity insulation that does not extend to the top of the wall unless the associated area of external walling is protected by an impervious cladding’.

NHBC Standards 6.2 S8

‘Horizontal cavity barriers (except under eaves) should be protected with a dpc tray. The tray should have a minimum upstand of 100mm’.

Trada Wood information Sheet 8. Timber Frame Construction:

‘Horizontal external wall cavity barriers should be protected by a cavity tray’.

Type U

Undersill Tray

- Shaped DPC Cavitrays
- Integral sill alignment facility
- Removable front section
- Ensures consistent build detail
- Selection of profiles
- Traditional or timber frame construction



USE

To aid masonry sill formation. To protect sills from permeating dampness inwardly.

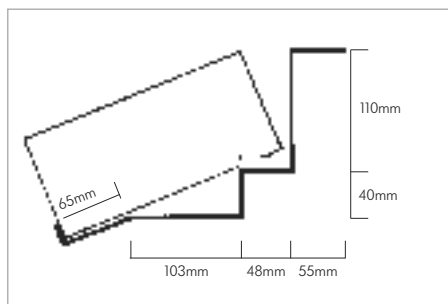
SOLUTION

The Type U Undersill Tray is a preformed DPC unit that acts as an alignment guide when constructing a sill in brick, tiles or stone and once built-in provides the protection demanded to arrest damp penetration.

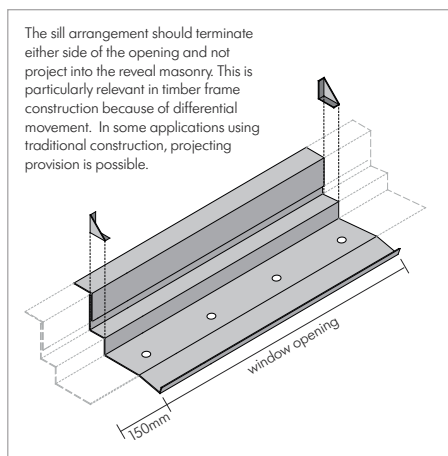
The Type U Tray is supplied moulded in a variety of profiles to suit the style and size of sill required. Once bedded in position, the sill bricks or tiles can be laid using the profiled tray as an integral guide that is enveloped within the construction. To the front of the tray is a projecting upturned lip to provide accurate tile or brick sill alignment. This lip is detachable once the completed sill mortar has set.

The Type U Tray is designed to permit transient drainage through apertures moulded within its base bedded in the exterior masonry skin. To each end of the tray moulded stopends prevent discharge into the cavity.

Trays are suitable for use in both traditional and timber frame construction. Sill design can accommodate differential movement between inner and outer skins in the form of a horizontal expansion gap as highlighted within NHBC Performance Standards (Such movement can be quite pronounced between masonry and timber frame). Being a link between both structural skins, sill rotation at this point (axis) can thus be addressed, if specifically requested.



A constructed sill will normally terminate in line with the structural opening. Its ability to expand and contract unhindered (compared with building into the adjacent masonry) reduces the likelihood of subsequent cracking occurring. Projection into the adjacent masonry is possible where expansion and contraction extremes are not present.



ONSITE INSIGHT
see page 79

DESIGNERS' COMMENTS

A brick sill subjected to a 20°C temperature rise will expand by 0.10-0.16mm/m (millimetres per metre). Such thermal movement often results in small fissures or fractures within a sill mortar bonding joint. The benefit of the sill DPC arresting any rainwater which enters the sill detail is paramount. Permits easy compliance with NHBC 6.1 - S4(d) and 6.2 - D4(a) (Moisture control and insulation). Exposed site classification.

The preformed rigid shape also avoids the common site problem of misplacement of conventional DPC material.

PRODUCT NAME - GROUP

Type U

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 200mm

DIMENSIONS

To suit to up 2440mm max in one length
Glove lap to form longer runs.

See examples of most popular profiles

BESPOKE OPTIONS

Yes designs / profile tailored to suit project

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Possible with reconstruction

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

JOINTING METHOD

Glove lap 150mm if over 2400mm

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Integral transient drainage apertures

MATERIAL - THERMAL INSULATION

Inskorfoan polystyrene BS 3836. 0.033

MATERIAL - SILL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Does not affect tray placement position

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

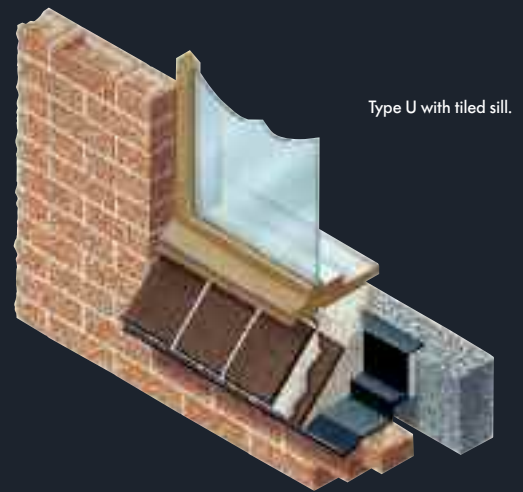
Overcomes common failure of sill DPC installation not rising the full height to match sill dimension.



Type U (continued)

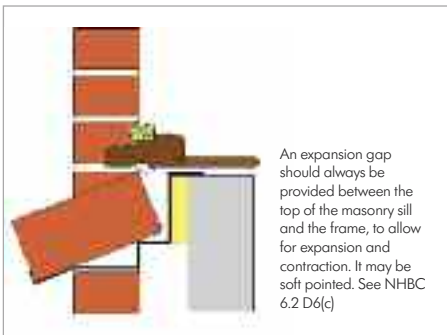
Undersill Tray

- Shaped DPC cavi tray
- Integral sill alignment facility
- Removable front section
- Ensures consistent build detail
- Selection of profiles
- Traditional or timber-frame construction



Type U with tiled sill.

The Type U Tray can be supplied with an optional thermal insulation layer where it rises within the cavity. As this option usually affects possible sill shape choices it should be considered at project design stage.



SILL ANGLE

The angle (shape) of any tile or brick sill is dictated by the height of the Type U inboard rise. The height can be selected when ordering, giving the specifier opportunity to choose the most appropriate angle to suit the intended appearance.

The inboard rise provides support for the back of the sill and then projects horizontally inwardly, rather than continuing parallel with the sill angle. This unique design permits mortar to infill under the laid sill at the back of the formation. Sill solidity and strength is increased considerably compared with arrangements that do not accommodate horizontal infilling. (Also anticipates trades may lean ladders against sills during lifetime of structure.)

TIMBER FRAME CONSTRUCTION

A flexible link can be incorporated within the vertical back upstand of the tray adjacent to the face of the timber inner skin. This provides a cushioned rather than a rigid relationship.

DESIGNERS' COMMENTS

As external skin masonry dries out there is a tendency for it to slightly rise (2.5mm per storey of clay masonry) whereas an internal skin of timber will shrink and move downwards. Always anticipate and make provision for this differential movement. (UKTFA publication advice.) It is recommended sills do not extend beyond the masonry opening. Terminating against the masonry opening will reduce the effects of differential movement. (NHBC - 6.2C)

The entire front section of the Type U which projects forward of the masonry line is fully detachable. An integral separating link permits this front portion of the tray to be removed, once the mortar has cured.

PRECAST AND SOLID SILLS

Modified Type U Trays can be provided where solid concrete, reconstructed and natural stone sills are used. In such applications trays usually terminate in a course below the sill bedding course and there is an option to incorporate discreet Caviweeps.

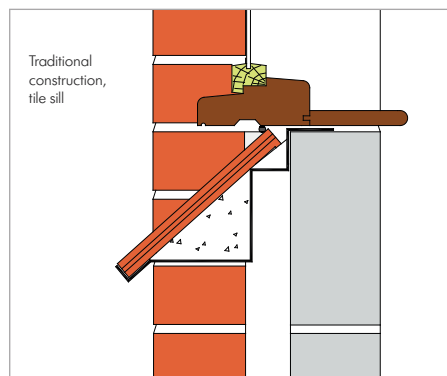
HOW TO ORDER

Popular profiles – State profile, whether sill matches masonry opening width or extends, cavity width, insulation option and lengths required.

Bespoke – make available drawings for appraisal / scheduling.

SPECIFICATION WORDING

Type U Undersill Tray by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).
Bed to opening prior to forming sill.
Request liability/conformity document upon completion.



PRODUCT NAME - GROUP

Type U

CAVITY WIDTHS ACCOMMODATED

From 50mm up to 200mm

DIMENSIONS

To suit to up 2440mm max in one length
Glove lap to form longer runs.

See examples of most popular profiles

BESPOKE OPTIONS

Yes designs / profile tailored to suit project

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Possible with reconstruction

MASONRY SKIN STYLES

No known limitation

UNDULATING MASONRY FACES

Compatible

CURVED WALL ON PLAN APPLICATIONS

Yes – see Curved Wall entries

JOINTING METHOD

Glove lap 150mm if over 2400mm

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Integral transient drainage apertures

MATERIAL - THERMAL INSULATION

Insokorfoan polystyrene BS 3836. 0.033

MATERIAL - SILL

Polypropylene DPC

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

Does not affect tray placement position

CAD DOWNLOADS

Yes

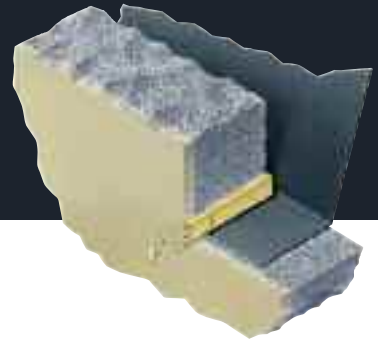
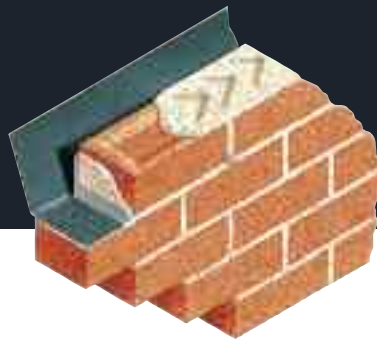
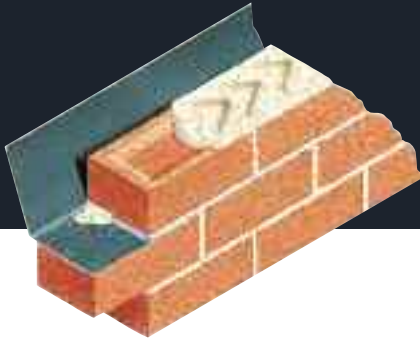
DESIGN CONSIDERATIONS

Overcomes common failure of sill DPC installation not rising the full height to match sill dimension.



Caviweeps / Cavivents

Caviweeps provide evacuation routes via which water arrested by trays, lintels and DPCs can discharge out of the structure. Cavivents provide ventilation apertures to permit the cavity to breathe. The specifier may select from a range varying in size, colour and functionality – some are dual function weep-vents.



Pyramid Weep (Masonry Bleed Straw)

The Pyramid Weep is a small robust triangular conduit offering discreet and unobtrusive water evacuation. Positioning the Pyramid Weep so it 'peaks' in a perp joint permits it to be used where the bed courses are restricted or smaller than usual. Water and debris wash along its flat base that permits bedding in the lowest possible position for optimum evacuation.

PRODUCT NAME - GROUP	Pyramid Weep
CAVITY WIDTHS ACCOMMODATED	All – width does not affect functionality
DIMENSIONS	Size 1: 100mm x 8mm x 8mm Size 2: 240mm x 8mm x 8mm
TRADITIONAL CONSTRUCTION COMPATIBLE	Yes
TIMBER FRAME CONSTRUCTION COMPATIBLE	Yes
NEW WORK APPLICATIONS	Yes
RETROFIT APPLICATIONS	Yes
MASONRY SKIN STYLES	Suits all
UNDULATING MASONRY FACES	Compatible
MATERIAL	PVCU
COLOUR	Mortar grey
PACK SIZE	Packs of 100 and 500
CFC	CFC Free
ODP	Zero
REGULATION COMPLIANCE	Yes
MAY BE USED IF CAVITY INSULATION PRESENT?	Yes with compliant insulation types
CAD DOWNLOADS	No
DESIGN CONSIDERATIONS	Discreet appearance. Position at greater frequency than Perp Weeps. Min 200mm centres for arrestment evacuation and as required to bleed / drain features.

Beak Weep (Caviweep)

The Beak Weep offers discreet water discharge via a small protruding beak. The flow path is direct to an outlet at the bottom of the beak that provides protection against directly blowing wind. The Beak Weep matches the height of a standard perp joint, but has a reduced front section.

PRODUCT NAME - GROUP	Beak Weep
CAVITY WIDTHS ACCOMMODATED	All – width does not affect functionality
DIMENSIONS	Weep: 108mm x 65mm x 8mm Ex duct: 200mm x 65mm x 9mm
TRADITIONAL CONSTRUCTION COMPATIBLE	Yes
TIMBER FRAME CONSTRUCTION COMPATIBLE	Yes
NEW WORK APPLICATIONS	Yes
RETROFIT APPLICATIONS	Yes
MASONRY SKIN STYLES	Suits all
UNDULATING MASONRY FACES	Compatible
MATERIAL	Polyprop
COLOUR	Translucent
PACK SIZE	Packs of 50
CFC	CFC Free
ODP	Zero
REGULATION COMPLIANCE	Yes
MAY BE USED IF CAVITY INSULATION PRESENT?	Yes with compliant insulation types
CAD DOWNLOADS	No
DESIGN CONSIDERATIONS	Suggested centres 450mm. Extension duct available.

Small Weep-vent Small Adjustable Telescopic

The Small Adjustable Weepvent offers discreet appearance with a rectangular front discharge outlet and an insect resistant grille. A removable protective flap protects the front face from being contaminated during building-in. The telescopic body of this Weepvent permits it to be lengthened or shortened to suit different masonry thickness / rendered applications.

PRODUCT NAME - GROUP	Small Adjustable Telescopic Weepvent
CAVITY WIDTHS ACCOMMODATED	All – width does not affect functionality
DIMENSIONS	93mm x 24mm x 9.5mm Extends additional 70mm max
TRADITIONAL CONSTRUCTION COMPATIBLE	Yes
TIMBER FRAME CONSTRUCTION COMPATIBLE	Yes
NEW WORK APPLICATIONS	Yes
RETROFIT APPLICATIONS	Yes
MASONRY SKIN STYLES	Suits all
UNDULATING MASONRY FACES	Compatible
AIR FLOW AT GRILLE	60mm ² aperture total
MATERIAL	Polyprop
COLOURS	Clear, grey, terracotta, beige, black
PACK SIZE	Packs of 100
CFC	CFC Free
ODP	Zero
REGULATION COMPLIANCE	Yes
MAY BE USED IF CAVITY INSULATION PRESENT?	Yes with compliant insulation types
CAD DOWNLOADS	No
DESIGN CONSIDERATIONS	Suggested centres 450mm.



Type W Caviweep-Vent

The Type W is a dual-function combined weep and ventilator. It is finished with an inclined insect resistant grille that promotes excellent air flow with the accompanying benefit of internal baffles to arrest wind-driven rain entering. The Type W makes use of positive and negative air pressure to aid functionality. It permits the cavity to breathe and evacuate water from lintels, trays and DPCs.

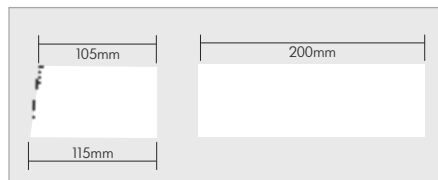
PRODUCT NAME - GROUP	Type W Caviweep-Vent
CAVITY WIDTHS ACCOMMODATED	All – width does not affect functionality
DIMENSIONS	Type W - 105mm x 65mm x 9.5mm Ext duct – 200/225mm x 65mm x 10mm
TRADITIONAL CONSTRUCTION COMPATIBLE	Yes
TIMBER FRAME CONSTRUCTION COMPATIBLE	Yes
NEW WORK APPLICATIONS	Yes
RETROFIT APPLICATIONS	Yes
MASONRY SKIN STYLES	Suits all
UNDULATING MASONRY FACES	Compatible
AIR FLOW AT GRILLE	320mm ²
MATERIAL	Polyprop
COLOURS	Grey, black, beige, brown, white, clear & terracotta to merge with wall/mortar
PACK SIZE	Packs of 50
CFC	CFC Free
ODP	Zero
REGULATION COMPLIANCE	Yes
SIGNERS' COMMENTS	MAY BE USED IF CAVITY INSULATION PRESENT? Yes with compliant insulation types: the external leaf not less than 150mm in height compatible with the external leaf requirements, details in Building Regulations Approved Document A. Additional DPC protection provided.
CAD DOWNLOADS	Yes
DESIGN CONSIDERATIONS	Suggested centres 900mm



Type W Render Cover

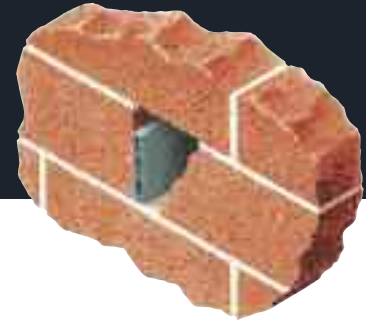
Type W Extension Duct - Extension duct for connection to rear of Type W to provide lengthened version to service masonry skins of increased thickness. Can be cut on site if required.
Type W Render Cover - Florescent coloured cover clips to front of Type W to provide protection and keep grille free of contamination during rendering or similar works.

PRODUCT NAME - GROUP	Type W Extension Duct
DIMENSIONS	200/225 x 65 x 10mm
AIR FLOW RATING	300mm ²
MATERIAL	Polypropylene
COLOUR	Grey
BOXED	Packs contain 50 extensions.



Type W Extension Duct

PRODUCT NAME - GROUP	Type W Cover
DIMENSIONS	68 x 10mm
MATERIAL	Polypropylene
COLOUR	Florescent green
BOXED	Packs contain 50 covers



Euroweep-vent

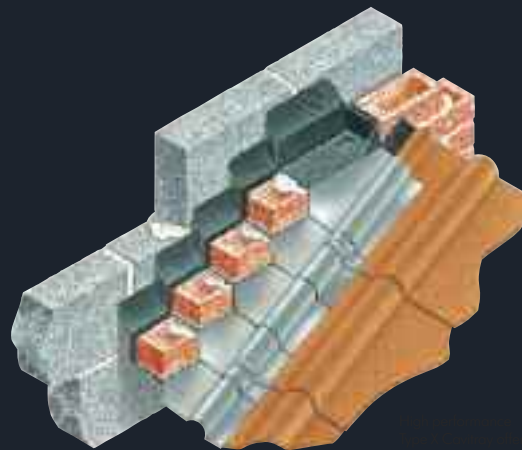
The compact Euroweep-vent provides ventilation to the cavity and an exit route through which water can discharge from trays, lintels and DPCs. Compact size, high air flow rating and minimalist vertical front provide a compromise visually between full perp and small alternatives.

PRODUCT NAME - GROUP	Euroweep-vent
CAVITY WIDTHS ACCOMMODATED	All – width does not affect functionality
DIMENSIONS	87mm x 49mm x 9mm
TRADITIONAL CONSTRUCTION COMPATIBLE	Yes
TIMBER FRAME CONSTRUCTION COMPATIBLE	Yes
NEW WORK APPLICATIONS	Yes
RETROFIT APPLICATIONS	Yes
MASONRY SKIN STYLES	Suits all
UNDULATING MASONRY FACES	Compatible
AIR FLOW AT GRILLE	300mm ²
MATERIAL	Polyprop
COLOURS	Grey, black, beige, brown, white, clear & terracotta to merge with wall/mortar
PACK SIZE	Packs of 50
CFC	CFC Free
ODP	Zero
REGULATION COMPLIANCE	Yes
MAY BE USED IF CAVITY INSULATION PRESENT?	Yes with compliant insulation types
CAD DOWNLOADS	Yes
DESIGN CONSIDERATIONS	Suggested centres 675mm

Type X

Cavitrays for Gable Abutments

- High performance approved Cavitrays for abutments
- Adjusts to cavity width - ensures correct relationship
- Integral anticapil features and integrity strip
- Traditional or timber frame construction
- Clear cavity compartment area - unobstructed flow
- Attached shaped flashing secured in bosem jaw



USE

To provide the stepped DPC and external weathering flashing where a sloping roof abuts a masonry wall.

SOLUTION

The Type X Cavitrays is a preformed DPC unit with an attached ready-shaped flashing. When laid in every course of a cavity wall external skin against which a sloping roof abuts, trays provide continuous stepped DPC protection running parallel with the slope. Water and dampness in the exposed masonry skin above this stepped arrangement is prevented from gravitating downwardly below it. Thus the masonry skin is wet above the roofline but remains dry where it becomes an internal wall.

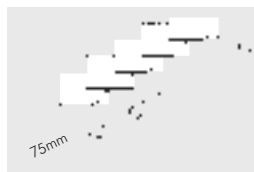
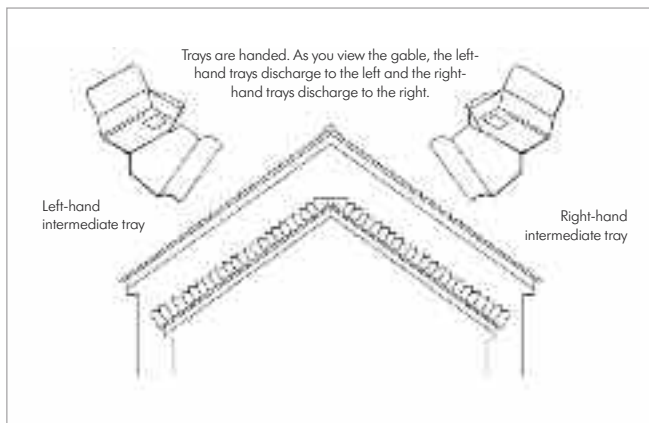
The Type X Cavitrays requires building into one skin only and does not interpose the inner leaf. Each tray has a hinged self-supporting cavity upstand that adjusts to suit the cavity width. This facilitates

compatibility with the cavity dimension as built - as opposed to the cavity dimension as intended.

The moulded features on every tray aid swift and accurate positioning. The mason is required to set up a chalk line matching the roof pitch and build one tray into every course with its corner on the line. This simplified installation procedure ensures all trays align and are correctly distanced.

The flashing on every tray is manufactured of lead. Alternatives may be selected from our range including a synthetic flashing. Each flashing is bonded onto the tray and is shaped to suit the roof pitch.

Flashings are simply dressed when the roof finish has been completed. Short flashings are attached where dressing is over a secret gutter or soaker, and long flashings are attached where dressing is directly over a suitably profiled tile.



Standard brickwork courses.

DESIGNERS' COMMENTS

The original code of practice 121:101:1951 showed a cavity DPC arrangement with a 75mm upstand. We always considered this far too small an upstand in our experience for new work applications. Eventually the new code of practice revised the upstand height to 150mm, a dimension which is now a regulation standard. However, it is interesting to note that not all manufacturers produce to this stipulated height.

From February 2015 changes under BS 5534 require roofers to mechanically fix components. The use of mortar only to secure tiles and ridges is no longer acceptable. Flashings adjacent to the fixed tiles at abutments experience the same uplift and wind buffeting extremes as tiles. When you evaluate the site location, topography and determine its exposure to wind-driven rain, consider also whether it is prudent to also secure the flashings whilst the opportunity to do so easily is available. See Onsite/Insight page dealing with BS5534.

PRODUCT NAME - GROUP

Type X for Sloping Abutments

CAVITY WIDTHS ACCOMMODATED

50mm up to 160mm (std range)

PITCHES ACCOMMODATED

15 degrees to 70 degrees (std range)

DIMENSIONS

INTERMEDIATE SIZES

Pitch	Tray
15 - 16 degrees	380mm
16.5 - 22 degrees	330mm
22.5 - 26 degrees	270mm
26.5 - 43 degrees	240mm
43.5 degrees	180mm

RIDGE TRAY SIZES

15 - 20 degrees	900mm x 130mm x 192mm vert
21 - 25 degrees	750mm x 130mm x 192mm vert
26 - 70 degrees	570mm x 130mm x 192mm vert

FLASHINGS

Short: 75mm min > 280mm

Long: 225mm min > 330mm

All dimensions vary pending actual pitch

ANGLES

220 x 220 external 120 x 120 internal

BESPOKE OPTIONS

Yes - all heights, depths & widths

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT / REMEDIAL APPLICATIONS

Yes

MASONRY SKIN STYLES

See Multicourse for non-std sizes

UNDULATING / SPLIT MASONRY FACES

See Designers' Comments for guide

CURVED WALL ON PLAN APPLICATIONS

Yes - see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Cavivweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

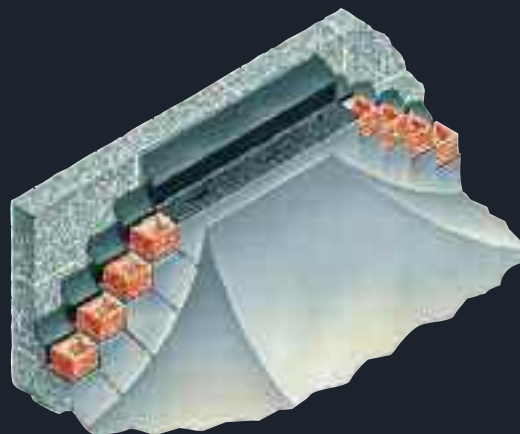
Negligible



Type X (continued)

Cavitrays for Gable Abutments

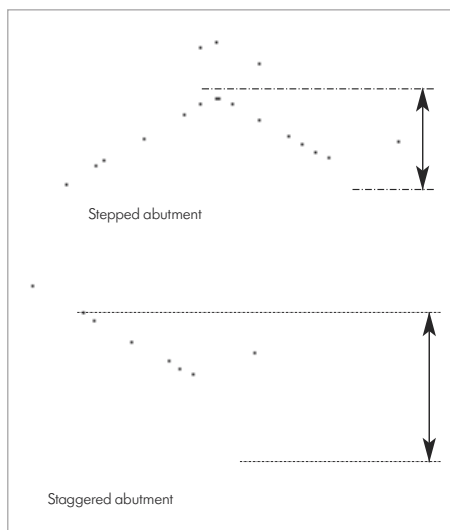
- High performance approved Cavitrays for abutments
- Adjusts to cavity width - ensures correct relationship
- Integral anticapil features and integrity strip
- Traditional or timber frame construction
- Clear cavity compartment area - unobstructed flow
- Attached shaped flashing secured in bosem jaw



Type X Cavitrays are suitable for use in both traditional and timber frame construction where the course size is 75mm (standard brickwork coursing).

If you require trays for alternative coursings or trays for masonry of greater thickness, please read the section dealing with multi-course trays. We are able to supply to all construction dimension requirements.

European Technical Approval has been awarded to Cavity Trays Ltd for the Type X Cavitrays and other Cavitrays systems within its range. No other UK manufacturer of trays holds this award.



MATERIAL – TRAY

Petheleyne DPC

MATERIAL – FLASHING

Code 4 lead BS EN 12588,2006

MATERIAL – FLASHING ALTERNATIVES

Synthetic flashing with colour option
Copper, Aluminium (See separate page entry)

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Yes can be used to satisfy arrestment

MAY BE USED IF CAVITY INSULATION PRESENT?

See Designers' Comments ref type.

CAD DOWNLOADS

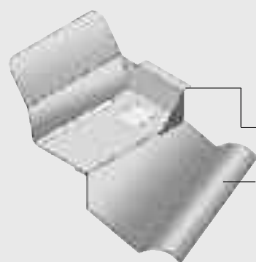
Yes

DESIGN CONSIDERATIONS

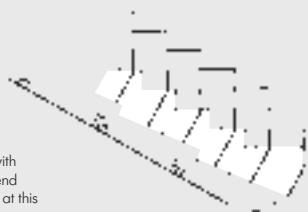
Wider cavity range now accommodated

Additional benefits

Unique overlapping flashing arrangement arrests any wind-driven rain.

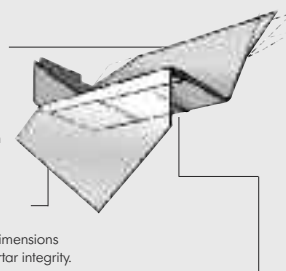


Integral Cavitrays sealing flap links with upper tray. This feature on the tray end upstands arrests horizontal tracking at this vulnerable spot.

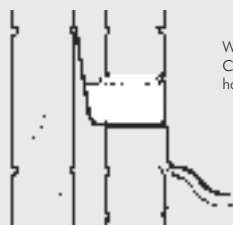


Adjustable cavity upstand accommodates the 'as-built' cavity status rather than the anticipated status.

Corner water-check prevents discharge at this point, an important consideration on exposed sites. Installation is also faster and easier, and the corner gusset ensures correct location within the brickwork as it stops trays being positioned too far forward or too far back.



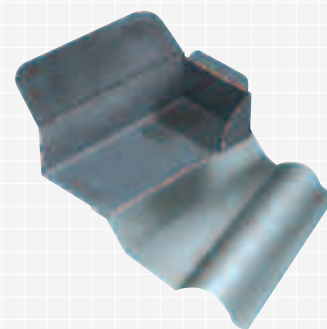
Water drip bars eliminate under-base tracking. Correct mortar bedding depth is also established as bar dimensions harmonize with front of tray section to aid stability and mortar integrity.



Clear cavity compartment area is unobstructed by troughs, ribs or stiffeners. This is possible because of our quality of material and quality of material thickness. Such a clear cavity compartment area is essential to prevent mortar bridging and to comply with the NHBC/COP requirements.

DESIGNERS' COMMENTS

Type X Cavitrays have always been produced to this dimension, prior to any BS enforcement. Tests have also established that water can be forced under some damp-proof courses if constantly high pressure differentials exist. Thus the requirement for all trays to be bedded on mortar to achieve solidity of bond and to ensure wind-driven rain cannot penetrate beneath same.



Type X (continued)

Cavitytray for Gable Abutments

Ridge tray

This straddles the ridge. It has two open ends and thus allows water to discharge to the left or to the right



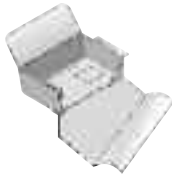
Intermediate tray

Intermediate trays are supplied handed and built into each course up the rake of the roof. Each tray has an end upstand so water can only discharge via the open end of the tray.



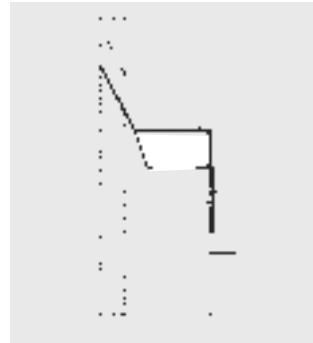
Catchment tray

This is similar to an intermediate tray but has upstands to both ends. Its function is to receive water from the intermediate trays and discharge this collected water through a Caviweep supplied with the tray.

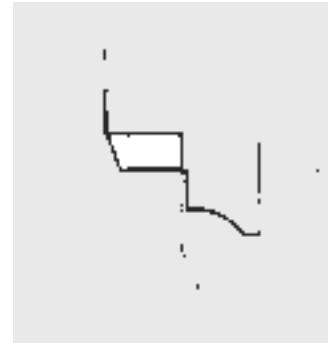


Internal / External Angles

An angle is used instead of a catchment tray if the abutment ends or returns on a corner. An angle may also provide a link with horizontal trays if required.



Short lead flashing for dressing over upstand of soakers (Shown in wider part insulated cavity)



Long lead flashing for dressing directly over roof tiles.

Short leads

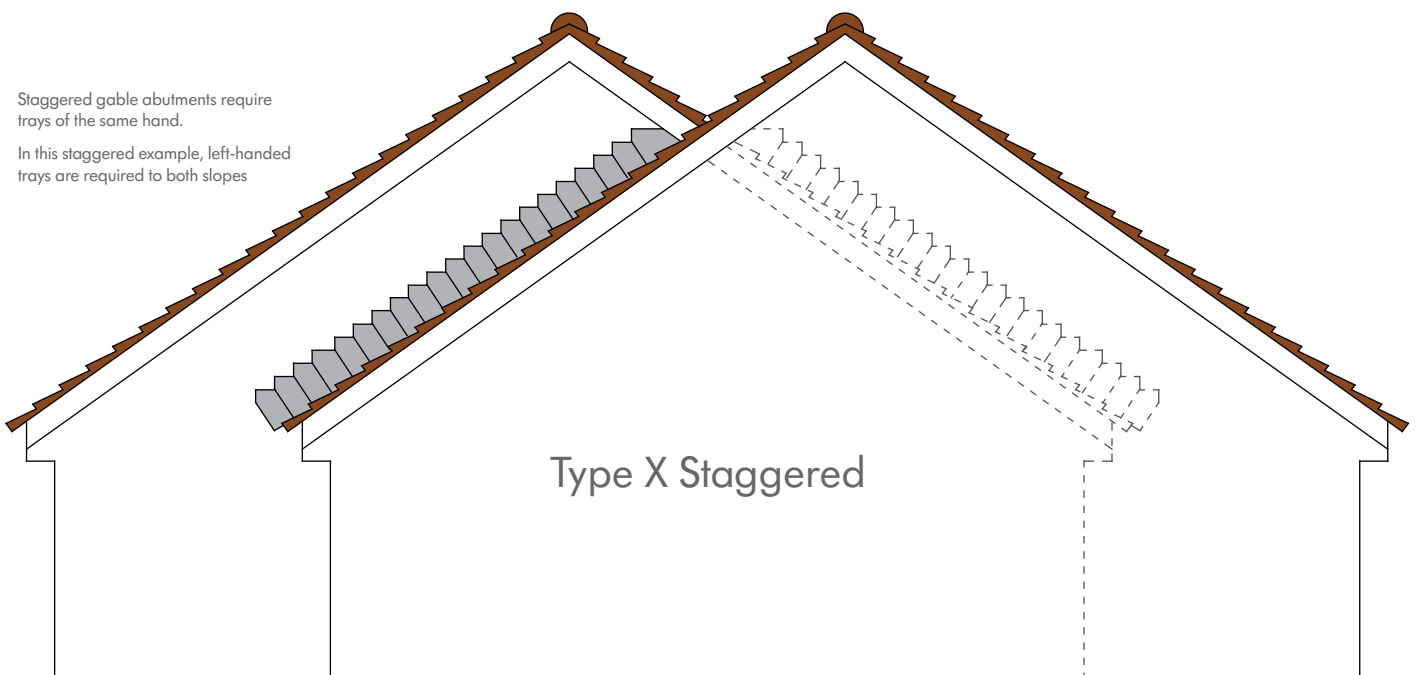
Short flashing for dressing over the upstand of a secret gutter or soakers. Whether secret gutter or soaker, it should rise against the masonry face and terminate just under the inboard end of the tray. In this example, partial fill insulation is also present.

Long leads

Long flashing for dressing directly over roof tiles. This option is appropriate where the tiles are suitably shaped (not flat or minimally undulated).

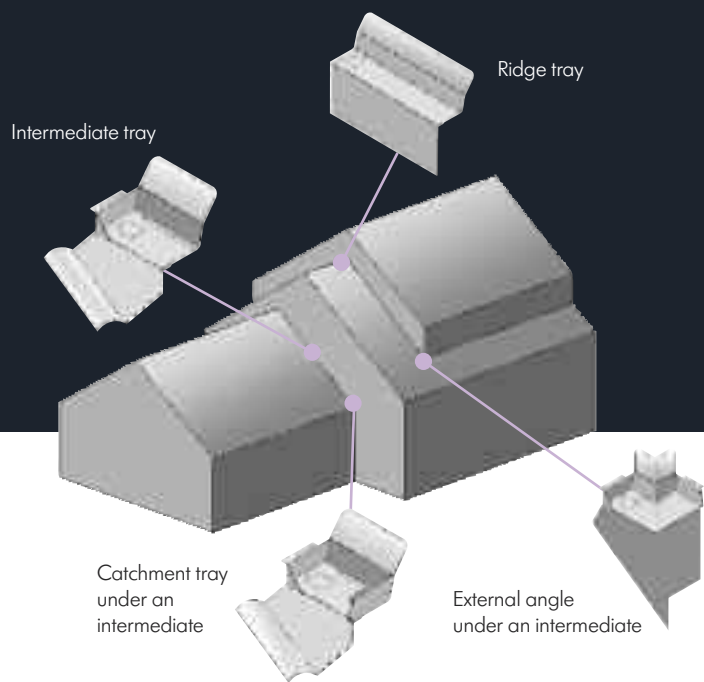
Staggered gable abutments require trays of the same hand.

In this staggered example, left-handed trays are required to both slopes



Type X (continued)

Cavitrays for Gable Abutments



CALCULATING GABLE REQUIREMENTS

We offer to take-off and schedule your requirement and invite you to take advantage of our service. Alternatively, you may carry out your own calculations as follows:

Calculate each slope separately.

This slope is a left hand slope and requires left hand trays.

Calculate by counting the courses - or measuring the vertical rise and dividing by 75mm.

Allow the bottom tray to be a catchment tray or corner tray as applicable. All other trays up the slope will be intermediate trays.

A ridge tray finally caps the top of a conventional gable (one ridge tray straddles both slopes).

Then calculate the right hand slope opposite.

Confirm total tray numbers required together with the following:

Outer skin type and thickness?

Cavity total width and whether any insulation present?

Are long flashings or short flashings required?

The attached shaped flashing will be in code 4 lead to BS EN 12588, unless an alternative is specifically requested and printed on any requisition.

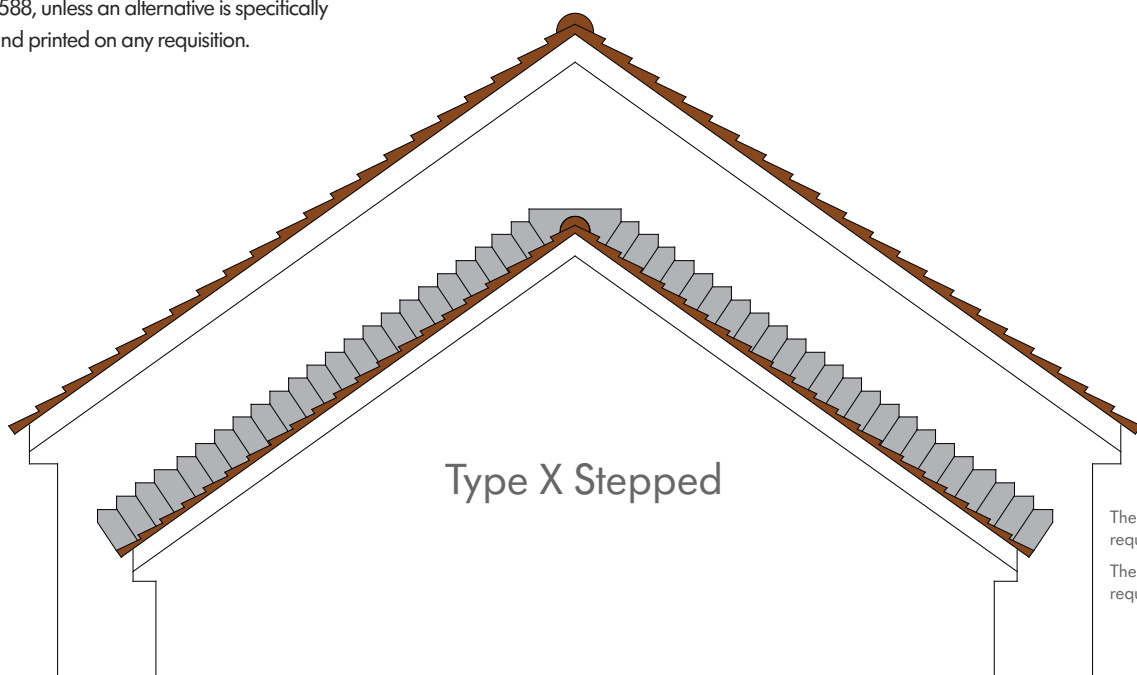
SPECIFICATION WORDING

Approved Type X Gable Abutment Cavitrays from Cavity Trays of Yeovil, Somerset BA22 8HU (01935 474769).

Type X Cavitrays to suit (state pitch) pitch roof, complete with attached code 4 lead flashings to dress over (state tiles or state upstand of secret gutter or soaker). Standard brickwork coursing (or state otherwise). Cavity size = Lay within mortar bed, one per course, up the slope. Specify total number of handed intermediate, ridge, catchment and external angles.

HOW TO ORDER

We offer a free scheduling / design service and will determine your requirements. Alternatively, calculate each slope separately by counting the courses. Allow the bottom tray to be a catchment or corner angle. All other trays will be intermediate trays until you reach the top of the slope. The top tray on a conventional full gable will be a ridge tray. An example of a typical gable is shown above and clearly indicates how the quantities and tray types are determined.



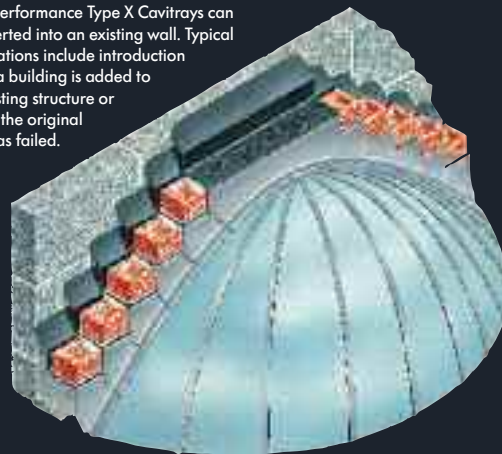
The slope on the left requires left handed trays.
The slope on the right requires right handed trays.

Type X

Existing Wall and Remedial Applications

- Fitted from outside, with minimum of masonry removed
- Cavity upstand adjusts to suit the 'as found' cavity width
- Base bars ensure correct mortar bedding depth
- Traditional or timber frame construction
- Attached flashing ready-shaped for dressing

High performance Type X Cavitytrays can be inserted into an existing wall. Typical applications include introduction when a building is added to an existing structure or where the original DPC has failed.



USE

Where a conservatory or extension with a pitched roof is added onto an existing cavity wall structure. Where an existing DPC has failed or has been omitted.

SOLUTION

Where a pitched roof conservatory or extension attaches to an existing cavity wall, flashing the intersection only will not prevent dampness permeating downwardly within that skin. Insertion of Type X Cavitytrays above the new roofline can arrest such dampness and be used to satisfy the Building Regulations.

Insertion entails cutting out masonry on a progressive basis, a distance above the roof of the new structure. Once a few bricks (or equivalent) have been removed, the hinged upstand of the Type X Cavitytray is turned down until it is horizontal. This permits the tray to be inserted into the opening and bedded on mortar. As the tray enters the opening the hinged upstand is allowed to flex upwardly. So doing enables it to service the cavity width as encountered. This is repeated in subsequent courses until the top is reached where the last tray to be inserted is normally a ridge tray.



Conservatories and the NHBC

NHBC Standards Extra qualifies:

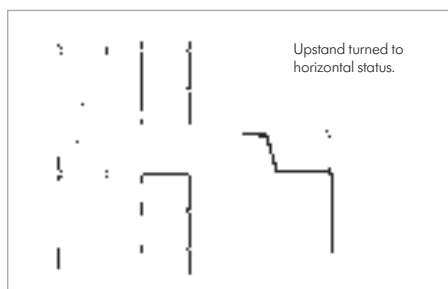
'Where the conservatory abuts the existing external walls of the house, a stepped cavity tray should be provided above the roof abutment. The tray will need to be linked to a stepped flashing'. Compliance can be achieved using the Type X Cavitytray.



This section should be read in conjunction with the previous pages where the various tray styles and their functions are described. If it is intended to dress the tray flashings over a glazing bar or similar adjacent to the masonry, always ensure it is suitably dimensioned and positioned to act as a weather stop. (Note: some conservatory manufacturers offer an abutment profile that rises to provide this requirement.)

In remedial applications where an existing DPC has failed or been omitted, installation follows the identical procedure.

Trays are available to suit different masonry course heights and thicknesses. If in doubt, contact the help desk at Cavity Trays. We undertake appraisals on site and will be pleased to assist you.



PRODUCT NAME - GROUP

Type X for Sloping Abutments

CAVITY WIDTHS ACCOMMODATED

50mm up to 140mm (std range)

PITCHES ACCOMMODATED

15 degrees to 70 degrees (std range)

DIMENSIONS

INTERMEDIATE SIZES

Pitch	Tray
15 - 16 degrees	380mm
16.5 - 22 degrees	330mm
22.5 - 26 degrees	270mm
26.5 - 43 degrees	240mm
43.5 degrees	180mm

RIDGE TRAY SIZES

15 - 20 degrees	900mm x 130mm x 192mm vert
21 - 25 degrees	750mm x 130mm x 192mm vert
26 - 70 degrees	570mm x 130mm x 192mm vert

FLASHINGS

Short: 75mm min > 280mm Long: 75mm min > 330mm
All dimensions vary pending actual pitch

ANGLES

220 x 220 external 120 x 120 internal

BESPOKE OPTIONS

Yes - all heights, depths & widths

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes

NEW WORK APPLICATIONS

Yes

RETROFIT / REMEDIAL APPLICATIONS

Yes

MASONRY SKIN STYLES

See Multicourse for non-std sizes

UNDULATING / SPLIT MASONRY FACES

See Designers' Comments for guide

CURVED WALL ON PLAN APPLICATIONS

Yes - see Curved Wall entries

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via Cavivweeps (selection) in perp joints

THERMAL TRANSMISSION OF MATERIAL

Negligible

MATERIAL - TRAY

Petheleyne DPC

MATERIAL - FLASHING

Code 4 lead BS EN 12588,2006

MATERIAL - FLASHING ALTERNATIVES

Synthetic flashing with colour option
Copper, Aluminium (See separate page entry)

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

Available individually

CFC

CFC Free

ODP

Zero



Type X

Multicourse Trays

- Ready-shaped attached lead flashing
- Traditional or timber frame construction
- Clear cavity compartment area
- Sizes to suit: All course heights, All masonry thicknesses, All cavity widths, All pitches of abutment

Multicourse cavitrays are available in dimensions to suit all masonry course heights and all thicknesses of external skin.

The Multicourse tray style varies pending course height and masonry thickness. The illustration is an example of one such style.



TYPE X MULTICOURSE

Cavitrays to suit different masonry dimensions and styles

USE

Damp arrestment and weathering flashing provision where sloping roofs abut cavity masonry walls.

SOLUTION

Where different masonry dimensions and/or skin thicknesses are encountered, trays are available from the Multicourse range to suit. Tray style and functionality is based on the Type X design.

Trays are proportioned to match the masonry course height. The end upstand of every tray (inboard end) rises and integrates with the base of the tray in the course above. A DPC staircase arrangement is created, with connecting treads and connecting risers. Regardless of whether all masonry courses are identical or there is a mixture of courses, all trays connect with each other. The DPC arrangement is unbroken.

If the masonry thickness (exterior skin depth) is greater than the usual standard (105mm nom) the tray is correspondingly enlarged. Should the exterior skin be in a medium such as natural stone built against a backing block, the tray base is proportioned to extend through the combined thickness.



Multicourse Regular Wide Front to Back Dimensions. The natural hamstone is built against a concrete backing block resulting in an external leaf of 250mm thickness beyond which is the cavity. Thus the trays have extended front to back dimensions.



Multicourse Regular 225mm courses trays are used throughout this example.

Multicourse trays are supplied with attached long or short flashings in code 4 lead unless an alternative material is requested (see flashing choices). The visual flashing step always matches the masonry course. Where the masonry courses are large (such as with 225mm block work or similar) the specifier has the option of considering whether it is practical to run to smaller modules on the actual rake.

An obvious example being where a block work wall has a rendered finish and it is practical to incorporate 75mm courses. The visual finish should always be considered (see rendered wall finish option).

HOW TO ORDER

Provide details/ drawing and we will calculate and schedule. Alternatively follow calculation procedure described for Type X based on course height being used.

SPECIFICATION WORDING

Type X Multicourse by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Incorporate in exterior skin to all sloping roof abutments as schedule.

Request liability/conformity document upon completion.

PRODUCT NAME - GROUP

Type X Multicourse

CAVITY WIDTHS ACCOMMODATED (RANGE)

All widths

DIMENSIONS

Tray heights 100mm 125mm 150mm 175mm
200mm 225mm
Tray depth 130mm - 300mm range
Tray length Varies to suit angle of abutment

TRADITIONAL CONSTRUCTION COMPATIBLE

Yes

TIMBER FRAME CONSTRUCTION COMPATIBLE

Yes - time frame version offered

NEW WORK APPLICATIONS

Yes

RETROFIT APPLICATIONS

Yes

MASONRY SKIN STYLES

No identified limitation

UNDULATING MASONRY FACES

Ideally flashing dressing requires flat surface under

CURVED WALL ON PLAN APPLICATIONS

Yes

CAVITY INSULATION MAY BE USED IF PRESENT?

Insulation should not affect functionality

CONGRUENT WITH OTHER WALL ELEMENTS

No identified incompatibility

ARRESTED WATER EVACUATION

Via accompanying Caviweeps

MATERIAL

Trays / weeps / stopends / ties Polypropylene DPC
Flashing Lead BS EN 12588
Flashing alternatives Synthetic, Copper,

COLOUR

Black

EXTRUDES / COMPRESSES UNDER LOAD

No

PACK SIZE

No minimum - to order

CFC

CFC Free

ODP

Zero

REGULATION COMPLIANCE

Damp-proofing BS EN 845.2:2001

CAD DOWNLOADS

Yes

DESIGN CONSIDERATIONS

Additional catchment may be incorporated within long runs where exterior skin porosity is of concern





ONSITE INSIGHT

Stepped and Staggered Failure

Requested by a national NHBC registered house builder to investigate existing stepped and staggered gable abutments to houses on a large development site, it was immediately apparent dampness was not being prevented from permeating below the abutting rooflines. A large number of properties were exceedingly wet – predominately in the upper floor inside walls.

It transpired a proprietary tray system with lead flashing attached had been used and despite contact being made with the manufacturer, the dampness problem was not resolved. The seriousness of the situation prompted urgent attention, and a decision was made by the house builder to remove the existing trays from the troublesome gables and replace them with a different proprietary make. Replacement trays were thus obtained from a different (second) manufacturer. Following the second installation, the problem persisted and the gables remained damp. It was at this stage that Cavity Trays Ltd was contacted.

A survey of all the problem gables on site was carried out and the contractor advised of our findings. The contractor accepted our submissions and made the decision to execute the work yet again, but this time using Cavity Trays of Yeovil preformed warranted Type X cavitrays. Installation of the Type X trays resulted in the dampness problem being eliminated from all previously damp gables.

In response to being asked what was wrong with the first installation, analysis was not possible as the problematic gables had already been replaced before Cavity Trays was contacted. However, individual trays were available for inspection and capillary action was identified as one of several possible reasons for failure.

Water flooding a bedding course will saturate masonry rising off that course and permeate horizontally into adjoining masonry unless an isolation upstand at the end of the tray is adequately proportioned. Also the flashings on the trays were attached but not secured within a bosome jaw and the adequacy of the union appeared inconsistent and questionable.

With regards to the second installation, it might have been more successful had the cavity upstands (the part of the tray that should rise in the cavity by 150mm minimum) suited the actual cavity width to a greater extent? The fixed dimension trays used meant the full width was not protected whenever the cavity width technically went over-size. It should not occur, but in reality it often does and did.

It was also noted the size of the lead flashing attached to each tray did not match the length of the tray but was far shorter. It was therefore queried to what extent flashings lapped and whether wind-driven rain



ONSITE INSIGHT



had been driven between? When built in following the roofline pitch, small lead flashings offer less overlap protection against wind-driven rain than larger flashings.

Cavity Trays Ltd recommended use of warranted Type X Cavitytrays. Supplied with attached code 4 lead flashings, Type X trays benefit anti-capillary tracking measures to their base, plus a flexible isolation integrity barrier to the end upstand, to prevent dampness being inboard transmitted. The main cavity upstands also adjust to take up the

maximum cavity width encountered, thus addressing variances. Importantly, the size of each attached lead flashing matches the length of the tray. The lap between trays (and subsequent barrier protection against wind-driven rain) is greater than that examined on the alternative products.

To achieve dry status the contractor had in total purchased three different types of product from three different manufacturers. Because the gables failed to achieve dry status at the first and second installations, the purchasers also experienced considerable loss of confidence in the contractor of the properties affected.

Perhaps the first and second installations might have proved less troublesome on a less exposed site? Can one be sure? In reality one cannot, so one should always build to a standard capable of performing. Warranted high exposure rated trays are generally no more expensive than alternatives. The trays that stopped the damp penetration problems were Type X Cavitytrays. Cavity Trays Ltd is the only tray manufacturer awarded European Technical Approval. The Company also holds LABC Local Authority Building Control Product Type Approval.

Type X Cavitytrays are accompanied with product performance liability protection for the benefit of Architect, Builder and Client.

Flashing Options



- Thermally stable
- Malleable / stretchable
- Choice of flashing colours
- Available attached to some tray types or in rolls
- No scrap value

USE

Flashing material choices available on flashing-attached trays.

SOLUTION

Lead flashing remains the most popular choice to have bonded to our preformed trays.

Alternative options are available for projects where compatibility issues or visual characteristics are of concern.

Where an inert flashing medium can help maintain neutral balance in the presence of limestone, magnesian limestone, sandstone and some granites, building design should always consider the flow of water from limestone to other masonry materials and flashing mediums. Where continuity of metal type to match the roof finish ensures most appropriate compatibility and visual continuity (example copper roof with copper flashings).

The synthetic flashing addition to our range is a composite material consisting of aluminium mesh enveloped within silian-modified polymer rubber. It is non-permeable and offers similar malleability to lead flashing. It will hold to shape and once dressed can be additionally secured in place with adhesive if required. Resilient to temperatures between -20° and +70°. UV and ozone resistant.

IMPORTANT

Where trays are supplied with flashings attached, all flashings will be manufactured from code 4 lead to BS EN 12588 unless otherwise stipulated on the order and will be subject to our full product warranty. Our warranty extends to the tray only where copper, synthetic or aluminium flashings are requested.



MATERIAL	Lead
STANDARD	BS EN 12588
THICKNESS	1.8mm – code 4
WEIGHT SQ METRE	20.41 kgs/m ²
COLOURS	Natural
CONSIDERATIONS	Malleable and resilient medium shapes easily and provides long service life. Can be clipped or stuck if required
ROLLS AVAILABLE	All widths up to code 8 available separately



MATERIAL	Synthetic Perform
SPECIFICATION	BBA 09/4681
THICKNESS	2.1mm
WEIGHT SQ METRE	3.6kgs/m ²
COLOURS	Light grey, terracotta, black
CONSIDERATIONS	Resilient with negligible spring and good hold. Can be stuck or clipped if required.
ROLLS AVAILABLE	4m x 150mm, 250mm, 300mm, 450mm, 1250mm



MATERIAL	Copper
SPECIFICATION	BS 2870 ASTM B370
THICKNESS	0.55mm+
WEIGHT SQ METRE	kgs/m ² - varies pending gauge selected
COLOUR	Copper coloured prior to weathering
CONSIDERATIONS	Less easy to dress. Slight spring. Benefits clipping to retain.
ROLLS AVAILABLE	No



MATERIAL	Aluminium Alloy
SPECIFICATION	BS EN 485
THICKNESS	0.6 / 0.9mm
WEIGHT	kgs/m ² - varies pending gauge selected
COLOUR	Aluminium silver
CONSIDERATIONS	Less easy to dress. Springs. Required retaining medium.
ROLLS AVAILABLE	No