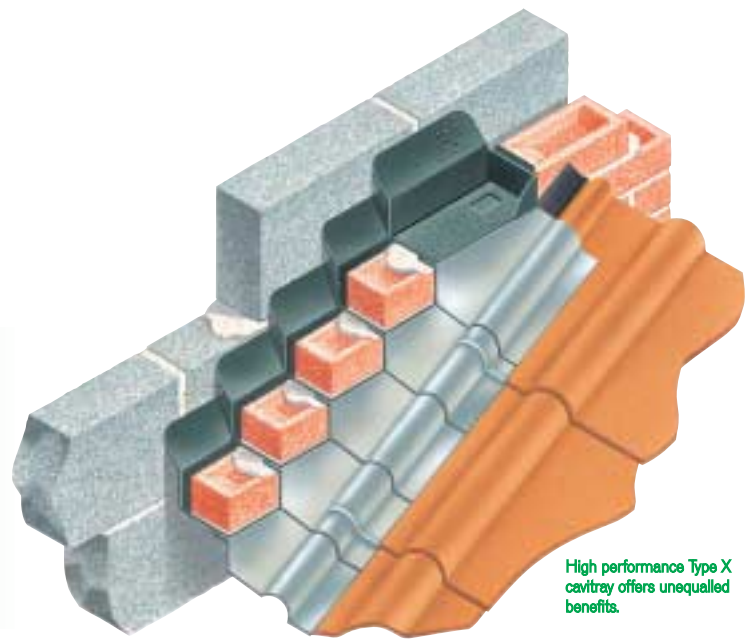


Type X Cavitray

for gable abutments

- High performance approved cavitray 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 boom jaw



High performance Type X cavitray offers unequalled benefits.

designers' comments

The airtightness of the inner skin (and thus the requirements of Part L) can be compromised with site fabrications regularly interrupting inner skin bonding (following the roof pitch). The cavity upstand of the Type X cavitray does not enter or interfere with the bonding so the skin remains unpunctuated.

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 prominent in BS5928. However, it is interesting to note that not all manufacturers produce to this stipulated height. Type X cavitrays have always been produced to this dimension, prior to any BS enforcement, following our own evaluation. 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

problem

How to damp proof and flash where sloping roofs abut cavity walls.

introduction

Every stepped and every staggered gable abutment must be so constructed to prevent rainwater and dampness from penetrating below the abutting roofline.

This is because the external skin changes status below the roofline and becomes an internal skin. Accordingly, any preformed system must meet three basic requirements:

- 1 It must prevent dampness from penetrating below the critical stepped roofline.
- 2 It must externally weatherproof and flash the physical roof/masonry intersection.

3 The arrangement must always protect the inside skin also from becoming damp.

The high performance Type X cavitray fulfils all such functions, whilst speeding up operations on site and ensuring a good and known quality of build.

solution

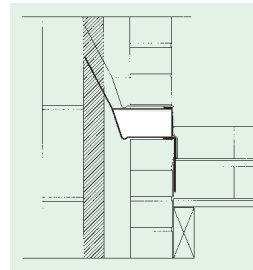
Type X cavitrays combine the functions of cavity DPC and roof lead flashing.

Tray installation is very straightforward and in a typical brickwork application the bricklayer lays one tray in every course, following the slope of the roof. All trays and the projecting lead flashing are flush-pointed as the masonry is raised.

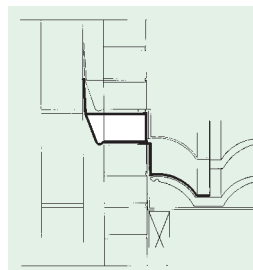
Thus the usual requirement to rake out joints and return

to point-in flashings at a later date is eliminated. The bricklayer having built-in the trays whilst raising the wall has completed his work.

Trays are manufactured with two choices of lead flashing lengths. Short lead flashings are suitable to dress over the upstand of a secret gutter or soaker.



Short lead flashings are used to dress over the upstand of a secret gutter or soaker.



Long lead flashing for dressing directly over roof tiles.

Alternatively, long lead flashings may be dressed across the roof tile. Under such circumstances, roof tiles must be suitably 'shaped' ie:

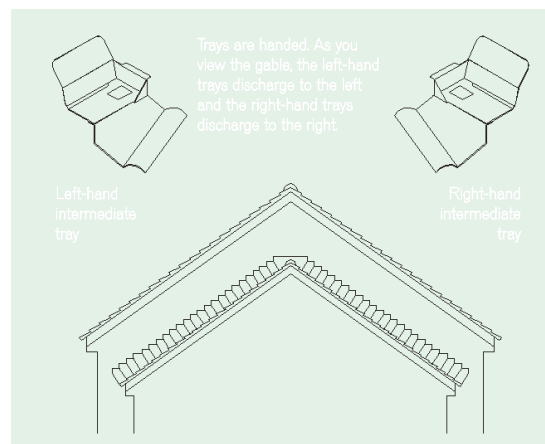
not flat. At a later date when the roof surface is complete, the plumber has only to dress the flashings.

cavitrays suit all cavity widths

Type X gable abutment cavitrays incorporate an adjustable hinged back upstand which is rigid and self-supporting. Accordingly, upstands do not require building into the inside skins. The cavity upstands automatically adjust to suit the cavity width in question. This is a most important consideration when one appreciates that the as-built cavity width is not always the as-intended cavity width. The standard Type X cavitray will suit cavity widths from 50mm up to and including 140mm automatically. This feature (or to 200mm with extended upstand) also eliminates the necessity to raise both skins of the cavity wall together.

course sizes

The standard Type X cavitray is designed to suit standard brickwork with approximately 75mm courses. Type X cavitrays are also supplied to suit other walling materials.



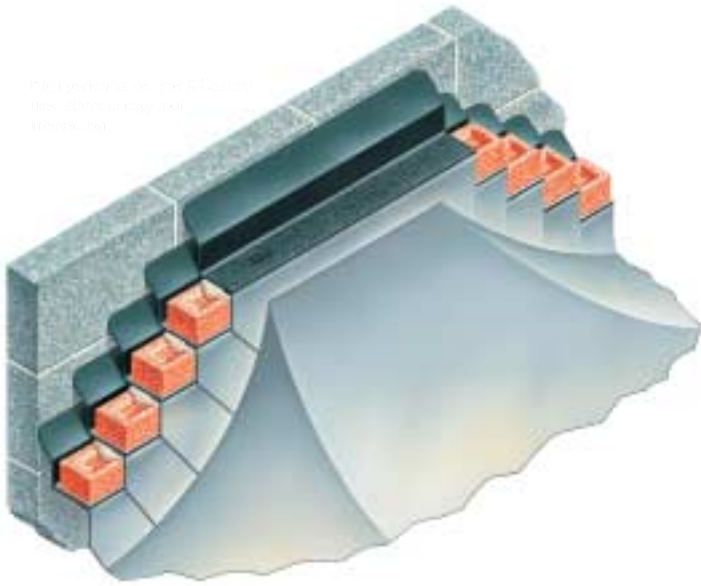
* Standard product dimensions range up to 140mm. Special product sizes available to 200mm.



Type X Cavitray

for gable abutments

FR10 approval for Type X Cavitray
from 2016 onwards. And
BS EN 12588:1999



- High performance approved cavitray 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 bosome jaw

DAMP-PROOFING

tray types

Ridge tray

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

Intermediate tray

Tray is supplied handed and built-in each course up the rake of the roof. Each tray has an end upstand, thus water can only discharge via the open end into the tray below.

Catchment tray

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

Internal/External angles

An angle tray 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.

tray variations

There are variations of the above tray types. We refer to and recommend the use of our free design and advisory bureau to ensure the correct trays are supplied. We will be

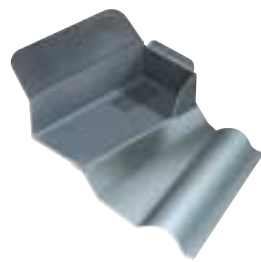
pleased to prepare our recommendations schedule and quotation from your drawings. A proposal is then submitted for your consideration.

traditional build or timber-frame

The adjustable cavity upstand of the Type X cavitray means the trays are suitable for both traditional and timber-frame construction.

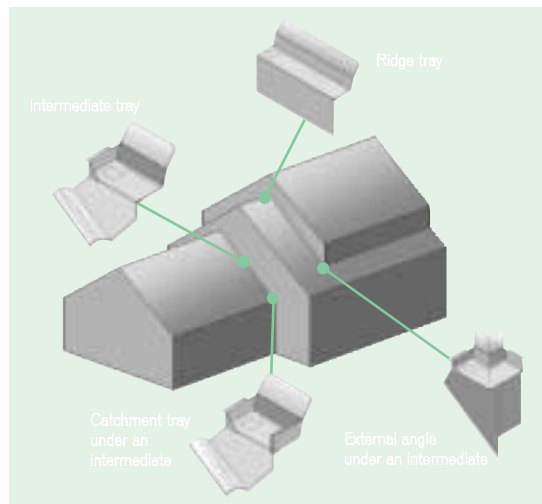
cavity insulation

Type X cavitrays comply with the requirements/recommendations of the Specifiers Guide for Cavity Insulated Walls. Type X cavitrays permit the insulation selected for use within the wall to be maintained throughout the structure.



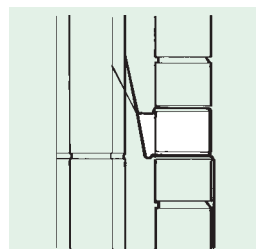
refurbishment projects

Type X cavitrays are suitable for insertion into existing walls. Please see separate page entry.



sizes

Type X cavitrays vary in size. The more shallow the roof pitch, the longer the tray. This factor is automatically taken into account. You need simply state the roof pitch. Cavity size accommodated = 50mm to 140mm.



Adjustable upstand accommodates the 'as-built' cavity width.

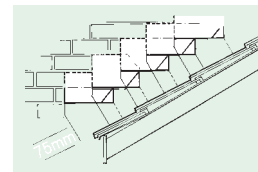
material

Injection moulded solid DPC thermostable

petheleyn/polypropylene for integrity of manufacture and service. Lead flashing to BSEN 12588:1999 cold rolled.

colour

Black and natural lead.



Single or double courses

beneath same. The base of every Type X cavitray is unique as it incorporates water bars which act as drips to prevent discharge run-back. However, in addition, these water bars also act as gauges which permit every cavitray to take up the exact and correct amount of mortar depth every time a tray is placed in position. Use of the petheleyn derivative of polypropylene is the best performing material following our testing procedures. It promotes the maximum service life and should not be confused with systems made of alternative materials.

The unique bosome jaw anchors the attached lead flashing to the tray, thus satisfying the recommendations that flashing should be built-in as work proceeds if possible. During the original Agreement Board certification/approval, it was remembered that the Type X cavitray was the first cavitray to be the subject of a GLC approval bulletin which advised use of the tray without further measures when used within London boroughs. On severely exposed sites, gable flashings may be secured if desired, using conventional fixings.



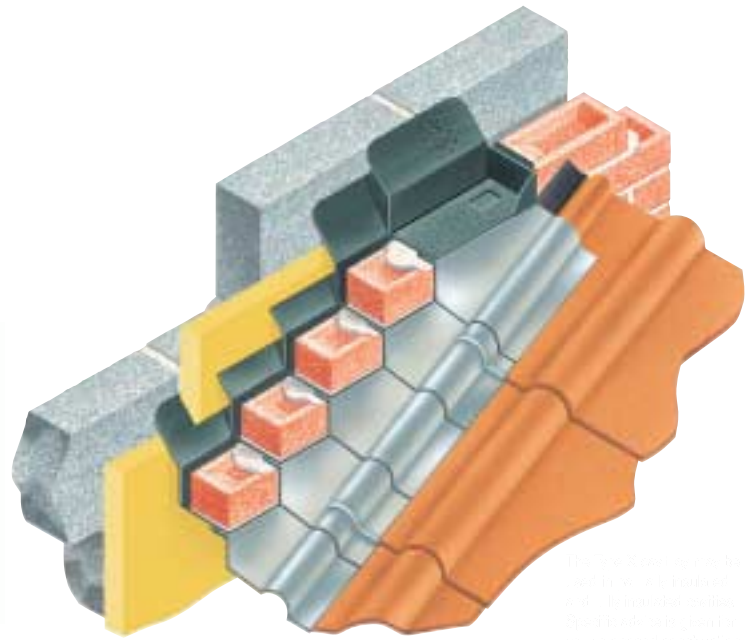
* Standard product accommodates cavity up to 140mm. Specialty tray extension for cavities up to 200mm

Type X Cavitray

for gable abutments

DAMP-PROOFING

- High performance approved cavitray 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



The new Type X Cavitray system is a unique, high performance, stepped tray system for gable abutments. It is designed to provide a clear, unobstructed cavity for water to flow through, and is secured in place by a bosem jaw.

technical observations

Adjustable cavity upstand accommodates the 'as built' cavity status, rather than the anticipated status. Water drip bars eliminate underbase track-back. Correct mortar bedding depth. Integral cavitray sealing flap links with upper tray. This feature on the tray end upstand arrests horizontal tracking at this vulnerable point. Integral flashing projects from within the front edge of tray, not under or against the tray base. This bosem jaw arrangement ensures union integrity. Corner watercheck prevents discharge at this point - an important consideration on exposed sites. The corner gusset also ensures correct location within brickwork as it stops trays being positioned too far forward or too far back. Unique overlapping flashing arrangement arrests any wind-driven rain which would be in contact with the building fabric with conventionally stepped running flashings. High performance classification. Branded with name and logo as proof of type and accompanying warranty. Conformity certification/liability document.

how to calculate the number of trays required

On a typical gable it is easy to calculate the requirements. Count the number of courses and that will give you the number of trays required for each slope. Remember to identify each slope as being left-handed or right-handed. At the bottom of each slope a catchment tray is required.

All the trays running up the slope are standard intermediate trays. At the top of the slope at ridge level it is usual to incorporate a ridge tray. In a staggered abutment situation, the procedure is identical except a ridge tray is normally not required at the top of the slope. At all times remember to identify the handing of the gable and clearly mark where the left-hand or right-hand cavitrays are required.

installation/site work

Trays are bedded on mortar at each course level. The setting up of a dummy rafter or chalk line provides an easy location method requiring the installer to align only the inboard corner of every tray to the line. All positions and overlaps are

thus correctly established automatically. The drawing demonstrates a typical installation. All trays and all masonry is mortar bonded. Full instructions accompany every consignment. If in any doubt, do not proceed but telephone our Helpdesk for immediate service.

bill of quantity wording

Approved Type X gable abutment cavitrays

Type X cavitrays to suit (state pitch) pitch roof, complete with attached code 4 lead flashings (or code 5 if specified) to dress over (state tiles or slate 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.

ordering/regulations

See inside back cover for details.

summary

Type X cavitrays are unique, and eliminate the need for the usual lead cutting and lead flashing on site.

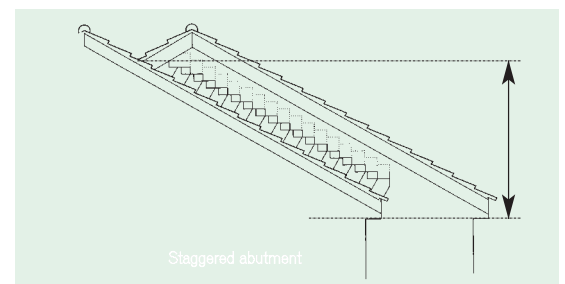
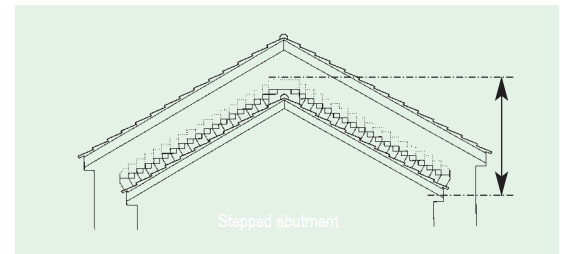
Our products also eliminate all wastage, eliminate all cutting of the DPC, eliminate fixing and gluing of the DPC whilst also eliminating the need to point-in after installation. Cavity widths are accommodated automatically.

The latest BS.5628-3:2001 qualifies on pages 62/63 that proprietary systems are available for stepped and staggered gable abutments. The type X cavitray system is

the compliant proprietary stepped tray system. Our Technical Advice Representatives can visit the site following delivery, to ensure a thorough understanding and appreciation of the most advanced combined DPC and flashing systems available.

Our proposals and products guarantee site quality and site peace of mind - whilst providing you with an all-in known total cost.

The high performance Type X cavitray offers further benefits. See next page.



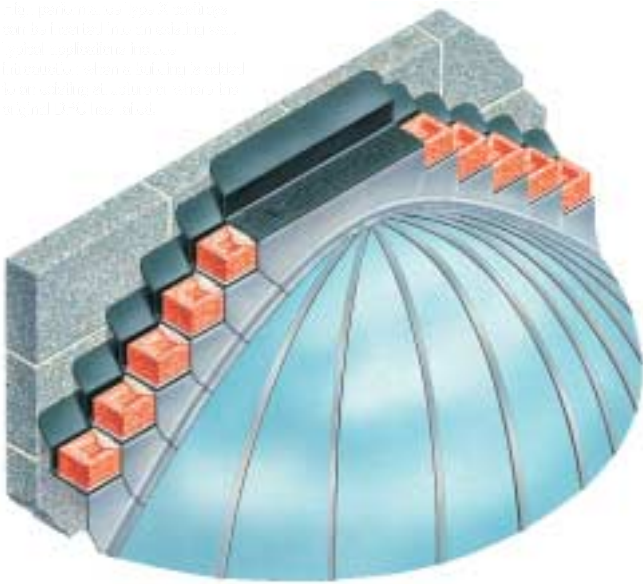
* Standard product accommodates cavity up to 140mm. Specify flap extension for cavities up to 200mm.



Type X Remedial

for gable abutments - remedial (existing) applications[†]

The 'upstand' of Type X cavitrays can be turned to a vertical position for remedial applications. This is achieved by the use of the 'as-built' cavity width. The 'upstand' of the Type X cavitrays can be turned to a horizontal position for remedial applications.

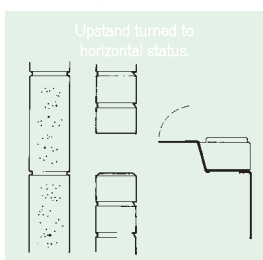


- Fitted from outside, with minimum of masonry removed
- Cavity upstand adjusts to suit the 'as found' cavity width
- Base bars ensure correct mortar bedding depth
- Traditional or timber-frame construction
- Attached flashing ready-shaped for dressing

remedial (existing) applications

The benefits of using the preformed Type X cavitrays are described on the previous pages. Type X is also suitable for existing work applications, as well as for new work. The construction of a new pitched roof abutting an existing cavity wall normally necessitates the introduction of an accompanying cavitrays system. This is because the original outside skin becomes an internal skin below the new roofline. Building Regulations stipulate measures must be taken to arrest any dampness. The upstand of the Type X cavitrays is hinged, which permits it to be turned to the horizontal status. In this position, the standard Type X cavitrays takes up the height of one brick course only, which allows its introduction into a cavity wall with the minimum of disturbance to the surrounding structure.

The cavitrays is bedded onto the mortar as it is pushed into position, and at the same time the cavity upstand is allowed to take up its correct angle within the cavity. The amount of masonry which must be removed is kept to an absolute minimum compared with most methods. The task of introducing the DPC tray at each course up the roof slope does involve careful application and attention. Cutting out, especially on a steep slope, involves masonry removal vertically staggered and observance of the usual precautions plus the introduction of slate pinning should be considered. Compliance with the Building Regulations necessitates the introduction of the stepping DPC system, and the Type X enables a difficult 'existing gable' task to be undertaken in perhaps the easiest possible manner.



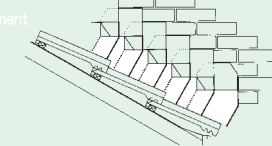
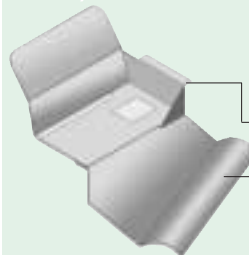
Conservatories and the NHBC

EN 12433 Standard Glass Qualities

Where the conservatory abuts the existing external wall of the house, a stepped cavity tray should be provided above the roof joint. The tray will need to be fitted to a stepped flashing. Compliance can be achieved using the Type X Cavitrays.

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 hinged tray back has the added advantage of taking up the as-found cavity width rather than the as-anticipated. Being self-supporting, the Type X upstand does not require any mechanical fixing to the face of the inside skin. Use of the Type X cavitrays means disturbance of the existing masonry is kept to an absolute minimum. Type X cavitrays have attached lead flashings secured within a unique protective bosem jaw. Use of the polyethylene derivative of polypropylene is the best performing material following our testing procedures. It promotes the maximum service life and should not be confused with systems made of alternative materials. Such benefits are not offered by any other proprietary system.

[†]This section should be read in conjunction with Type X pages.

technical observations

Branded with name and logo as proof of type and accompanying warranty.



[†] Standard product specifications apply up to 130mm. Specialty thin dimensioned cavitrays up to 200mm.