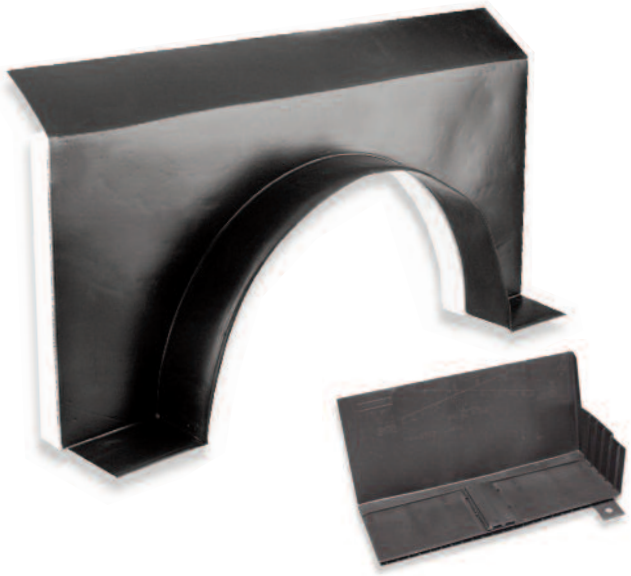


CI/SfB (21.9)
Uniclass Pr_25_57_21_66
February 2018

glidevale

A cavity wall is designed to prevent moisture penetrating to the inside face of the wall and causing damp problems in the building.

In many situations it is necessary to include cavity trays in the wall, to prevent water penetration to the inner leaf.

CAVITY TRAYS & PREFORMED DPCs

This occurs mainly where the cavity is bridged, eg by lintels above door and window openings, over air bricks, ducting, meter boxes etc and where an external wall becomes an internal wall at a lower level, eg pitched or flat roof abutments, parapet walls.

Cavity tray problems

Cavity trays usually require complex shapes, joints and support, which are extremely difficult to form on site using sheet dpc materials. As a result, many instances of damp penetration result from incorrectly installed cavity trays.

CAVITY TRAYS INTRODUCTION

TECHNICAL REQUIREMENTS

Cavity wall design

In cavity walls, dpc design should be based on the assumption that rain will penetrate the outer leaf of brickwork or blockwork and run down the inside face of the wall. Anything which crosses or obstructs the cavity can form a bridge allowing water to cross and soak through the inner leaf, causing damp within the building.

For this reason, building regulations require cavity trays to prevent water penetration where the cavity of an external wall is bridged or where an external wall becomes an internal wall at a lower level. Cavity trays are designed to ensure that water is diverted to the outer leaf or clear of the bridge.

Cavity trays are necessary in both double leaf masonry construction and masonry cladding to timber frame construction.

Where cavity trays are needed

To prevent rain penetration to the inner leaf, cavity trays are needed:

- Where an external wall becomes an internal wall at lower level, eg at roof/wall abutments and parapets.
- Where the wall cavity is bridged, eg by a lintel, air brick, ducting or meter box.

Open porches/car ports

Cavity trays are only required at roof abutments where the abutment wall becomes an inner wall below the roofline. Open porches and car ports are not habitable spaces, and therefore are not required to have cavity trays. However, if it is possible that a future occupier might enclose the space, we advise installing cavity trays when first built, to save costly retro-fitting at a later date.

TECHNICAL SOLUTIONS

Approved Document C Site preparation and resistance to contaminants and moisture

Approved Document C does not give detailed solutions using cavity trays, but refers to BS codes. The Glidevale solutions shown on following pages enable the recommendations of these codes to be met.

Internal and external walls (moisture from the ground)

5.4 - 5.6 Technical solution includes a damp-proof course, continuous with any damp-proof membrane in the floor, and where necessary a damp-proof tray to prevent precipitation passing into the inner leaf.

Alternative approach By paragraph 5.6 the requirement can also be met by following the relevant recommendations of Clauses 4 and 5 of BS 8215 Code of practice for design and installation of damp-proof courses in masonry construction.

Cavity external walls (moisture from the outside)

5.12 - 5.15 Technical solution includes a cavity at least 50mm wide, which can be bridged only by wall ties, cavity trays provided to prevent moisture being carried to the inner leaf, and cavity barriers, firestops and cavity closures, where appropriate.

Alternative approach By paragraph 5.14 the requirement can also be met by following the relevant recommendations of BS EN 1996-2: 2006 Design of masonry structures. Design considerations, selection of materials and execution of masonry.

CONVENTIONAL TRAYS PROBLEMS

Many current failures in building construction can be traced to faulty damp-proof courses and cavity trays caused by:

- Incorrect choice of materials
- Inadequate and incorrect detailing
- Faulty installation.

Many common details required in cavity trays such as corners, ends and changes in level cannot be formed satisfactorily on site from normal dpc sheet materials. External corners in particular are almost impossible to form on site without leaving gaps where water can penetrate.

Difficult junctions have traditionally been left to the bricklayer on site to resolve. It may no longer be sufficient to rely on site expertise, and often there is little incentive for the bricklayer to do a careful job in forming corners and junctions.

Modern standards of construction demand a better solution.

Faults and solutions

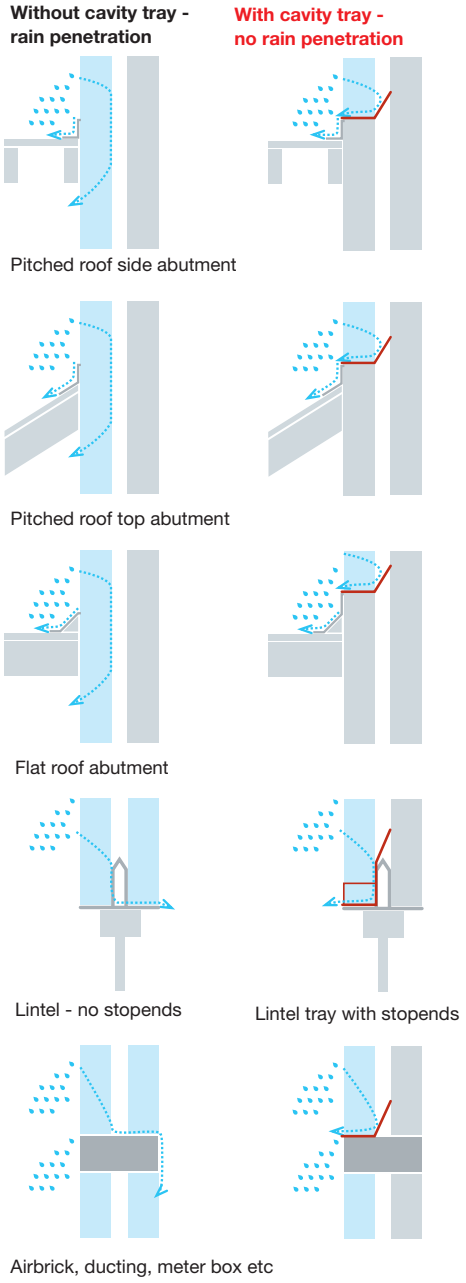
Investigations by the Building Research Establishment have revealed many faults in installed dpcs and trays, see the table below.

Once the building is completed, remedial action to correct these faults is very costly.

The expense of taking the trouble to ensure a correct installation in the first place, using preformed components, is negligible compared with the cost of putting faults right after the building is completed and occupied.

Common faults found in dpcs and trays by BRE
Omission of stop ends
Cut pieces butt jointed at corners
Trays not properly tucked into the lower leaf Trays not properly supported Trays not fixed to timber framing

GLIDEVALE CAVITY TRAYS



Glidevale solutions

The Glidevale range of preformed cavity trays has been specifically designed to overcome all the disadvantages of conventional trays. They are easy to install and provide very reliable protection against water penetration. There are types to suit almost every instance in which cavity trays are required.

The Glidevale Cavity Tray range has been developed over many years of intensive research and design starting from first principles. Having analysed the problems of traditional damp-proof course materials and current proprietary preformed cavity trays, Glidevale can offer the only range of cavity trays which overcomes the detailing and installation problems of existing products.

Glidevale Cavity Trays incorporate features and benefits across the range to achieve reliability through ease of installation.

Standard and bespoke specials

Glidevale offer a full range of standard specials such as arch trays, bullseye window trays and chimney trays, and can provide quotations within 24 hours.

In addition a free design service can be provided for bespoke preformed, moulded or welded accessories including pre-creased roll to suit precise design requirements.

Technical support

Glidevale can provide a comprehensive technical advisory service covering product advice and selection, estimating, and dpc design for residential or larger commercial projects designed to meet all regulatory requirements. Simply forward floor plans, elevation and section drawings and we will prepare a detailed quotation covering all components required. Alternatively contact our Technical Services Department for assistance.

BENEFITS

- Trays are specifically designed to avoid the faults most often encountered with conventional materials.
- All components are preformed or pre-creased, avoiding the need to create complex shapes on site.
- AT Abutment and HT Horizontal Trays are available with optional factory-fitted flashings. These are pre-shaped and securely attached to the trays, so providing a quicker and more reliable installation.
- Integral ribbing or textured finish provides an excellent mortar key.
- Manufactured from robust polypropylene sheet (unless otherwise stated in product descriptions), the trays are virtually indestructible on site.
- Resistant to acids, sulphates and alkalis likely to come into contact with the trays on site.
- One basic design is suitable for all masonry and timber-frame cavity walls.
- A simple range of components for each application makes specifying and ordering very easy.
- The majority of cavity trays are made from recyclable materials.

Glidevale solutions

Preformed stop ends with pre-applied seal at overlaps

Preformed internal & external corners with pre-applied seal at overlaps

Trays are self-supporting across the cavity and do not require tucking into the inner leaf or fixing to timber framing

Quality assurance

The Glidevale Cavity Tray range has been appraised under BS EN 9001 which covers design and development as well as manufacture, giving an independently audited and monitored assurance that the products are designed to meet their intended purpose.

INTRA WEEP AT ABUTMENT TRAYS

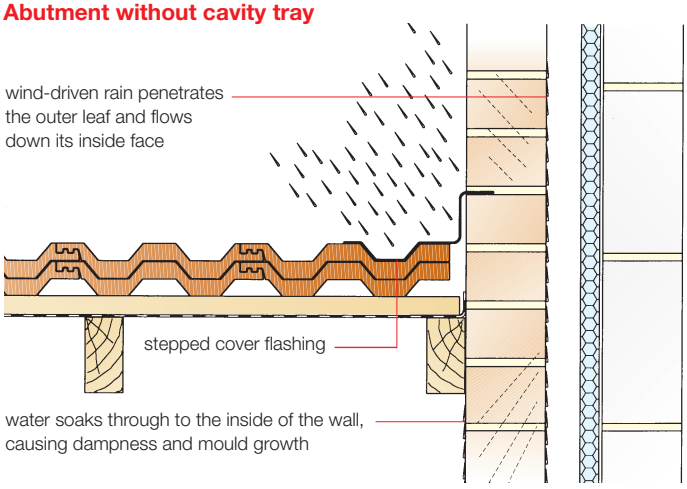
Use

AT Abutment Trays offer preformed cavity tray solutions at the junction where the sloping edge of a pitched roof abuts a wall.

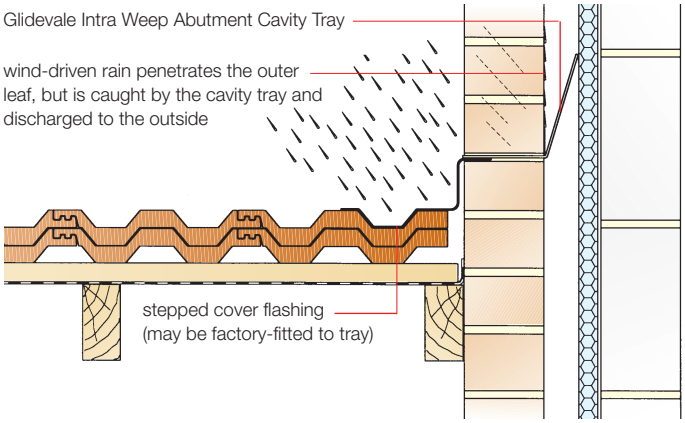
The need for a tray at this point is not always fully appreciated; flashings and soakers are not sufficient. Below the roof line the external leaf of brick or blockwork becomes an internal wall, so it is necessary to prevent any moisture that penetrates the outer leaf from running down and into the building. NHBC Standards for 'External masonry walls' section 6.1-D6 (a) and BS 8215 'Design and installation of damp proof courses in masonry construction' specifically recommend the use of preformed abutment cavity trays.

Intra Weep AT Abutment Trays are manufactured from polypropylene and are available with optional factory-fitted AluFlash or lead flashings, avoiding the need to cut and dress flashings on site.

Abutment without cavity tray



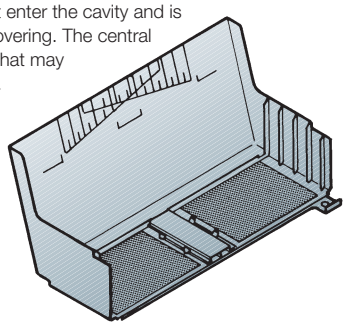
Abutment with cavity tray



AT Tray range

Intra Weep Catchment Tray

The first tray to be built-in to the outer leaf. Upstands at both ends ensure water cannot enter the cavity and is safely diverted on to the roof covering. The central channel discharges any water that may run down from the trays above.



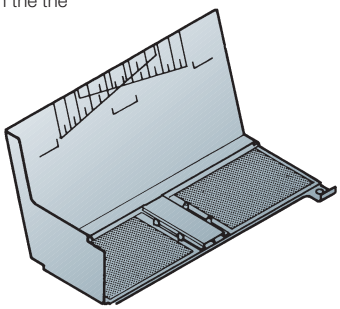
Intra Weep Apex Tray

Identical to the Catchment Tray and the last to be built-in to the outer leaf. Depending upon its position in relation to the brickwork joints, one or both upstands may need to be removed to avoid cutting bricks which will be visible on completion; this allows water to discharge to either side.

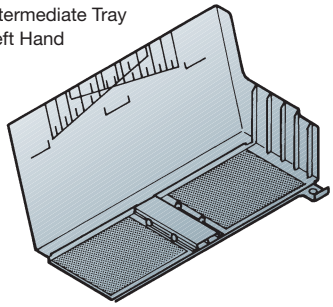
Intra Weep Intermediate Tray

Intermediate Trays are handed, with an upstand at one end preventing water from entering the cavity. Each tray has an integral weep to divert water safely on the the roof covering. Each tray must overhang the next by not less than 100mm.

Intermediate Tray Right Hand

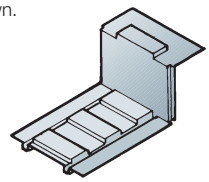


Intermediate Tray Left Hand

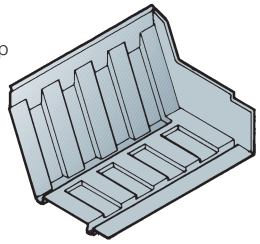


Corner Catchment Tray set

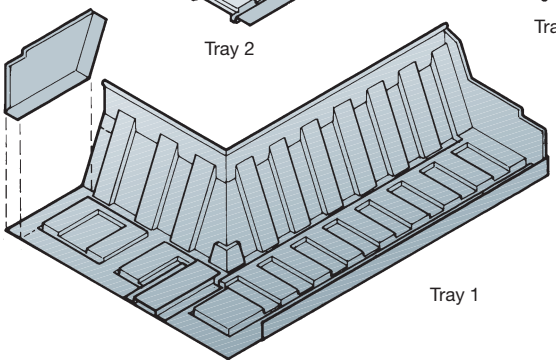
For a roof abutting an external corner of a wall. It retains the integrity of the dpc, provides integral weep and reduces the visual impact of the flashing. Left hand set shown.



Tray 2



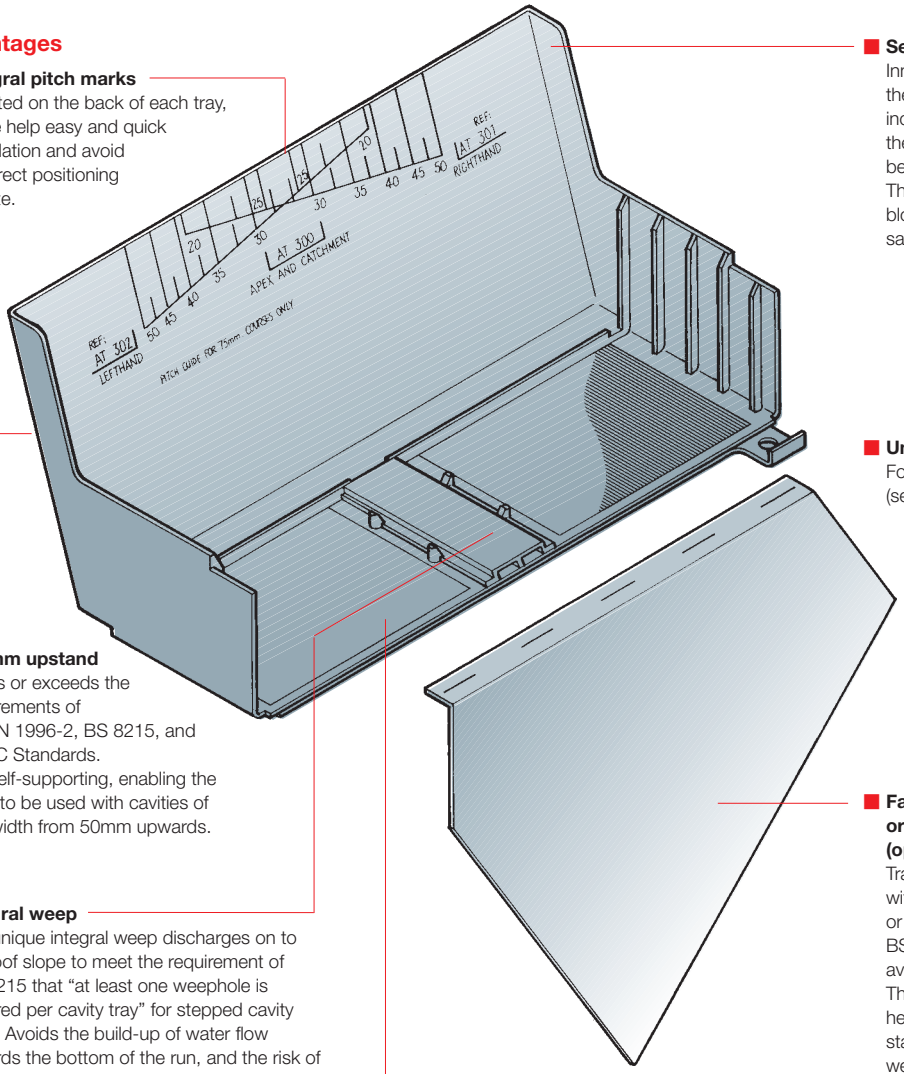
Tray 3



Tray 1

Advantages

Integral pitch marks
Located on the back of each tray, these help easy and quick installation and avoid incorrect positioning on site.



Self-supporting
Inner and outer leaves of the wall can be built independently, because the tray does not need to be tied to the inner leaf. This avoids the need to cut blocks horizontally and saves time.

Universal design
For 20° to 55° roof pitches (see Table 1 overleaf).

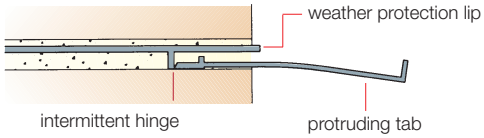
140mm upstand
Meets or exceeds the requirements of BS EN 1996-2, BS 8215, and NHBC Standards.
It is self-supporting, enabling the trays to be used with cavities of any width from 50mm upwards.

Integral weep
The unique integral weep discharges on to the roof slope to meet the requirement of BS 8215 that "at least one weephole is required per cavity tray" for stepped cavity trays. Avoids the build-up of water flow towards the bottom of the run, and the risk of leakage if any one unit is badly installed, or if mortar droppings cause blockage.

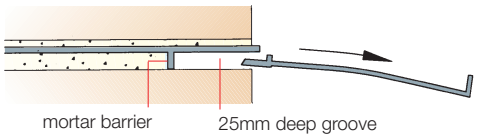
Factory-fitted AluFlash* or lead flashing (optional)
Trays are also available with factory-fitted AluFlash or code 4 lead flashings to BS EN12588 (Code 5 available to special order). The flashing, secured by heavy duty stainless steel staples, together with the weather protection lip and the bitumen butyl seal, provides complete protection against weather giving a driving rain resistant solution in even the most exposed sites. When installed the sidelap exceeds the minimum LSA requirement of 50mm.

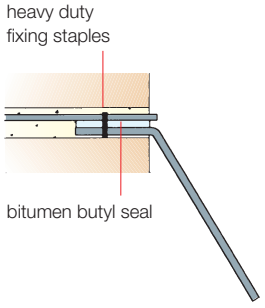
Fleximouth mortar barrier
Acts as a mortar barrier on the lower leading edge of the tray during installation. Once the mortar has set, the protruding tab is pulled and the hinge breaks away leaving a 25mm deep groove in accordance with Lead Sheet Association requirements. This allows for a flashing to be installed without the need to rake out the joint, which could damage the tray.

Before mortar has set



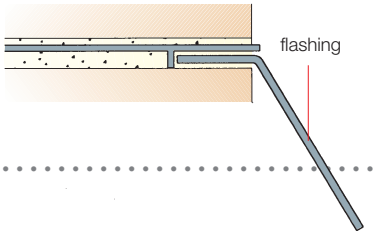
Removal of tab





Comprehensive installation instructions provided.

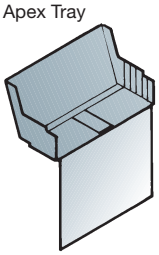
Installation of flashing



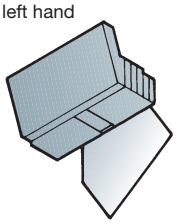
* Short flashings embossed finished, long flashings cross-corrugated finish

AT Trays with flashing

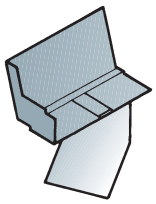
Apex Tray



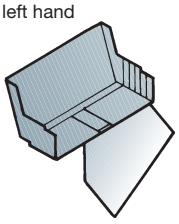
Intermediate Tray left hand



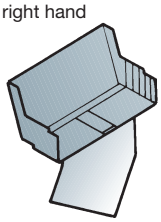
Intermediate Tray right hand



Catchment Tray left hand



Catchment Tray right hand



INTRA WEEP AT ABUTMENT TRAYS

Typical application: alternative flashings

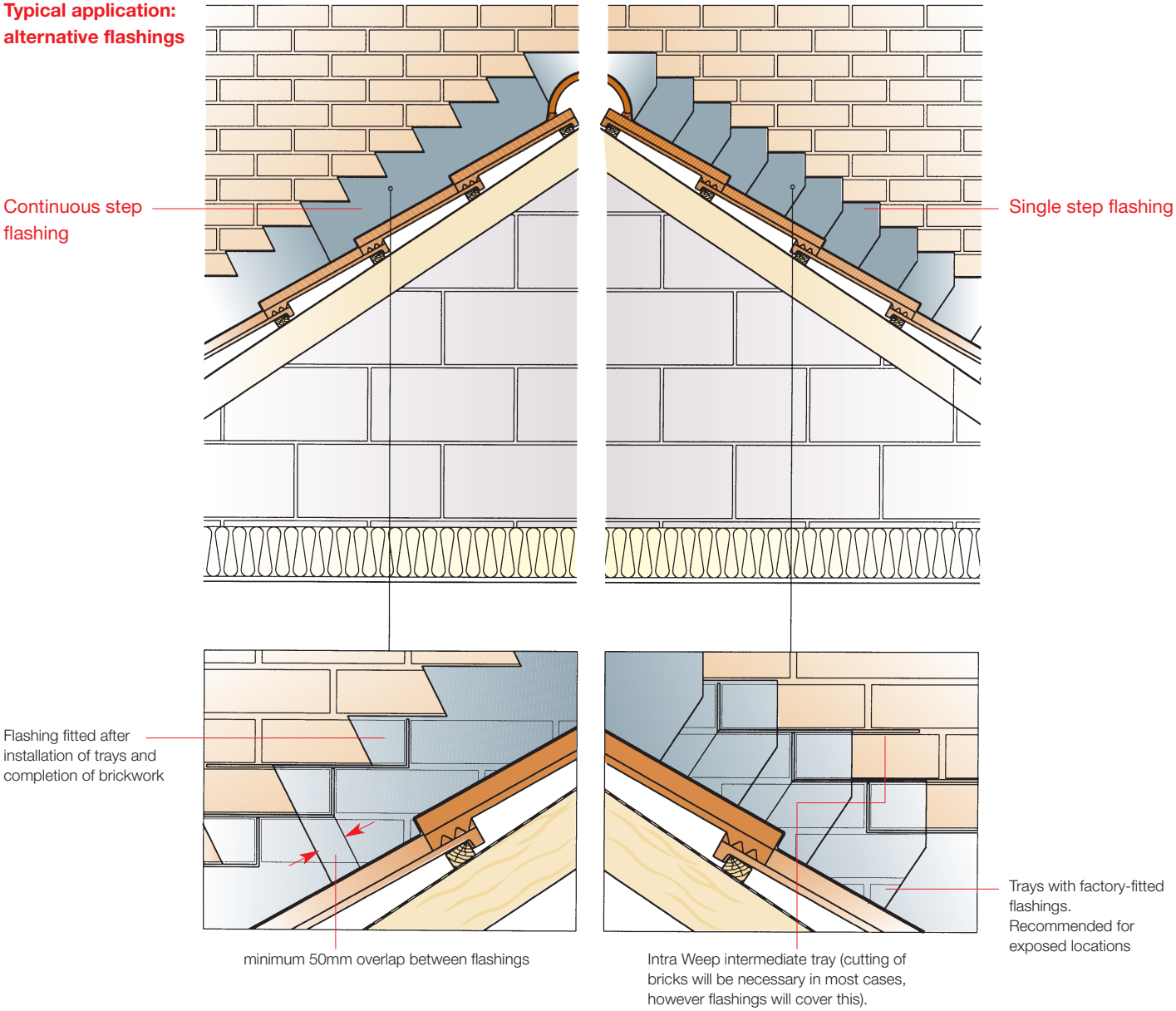
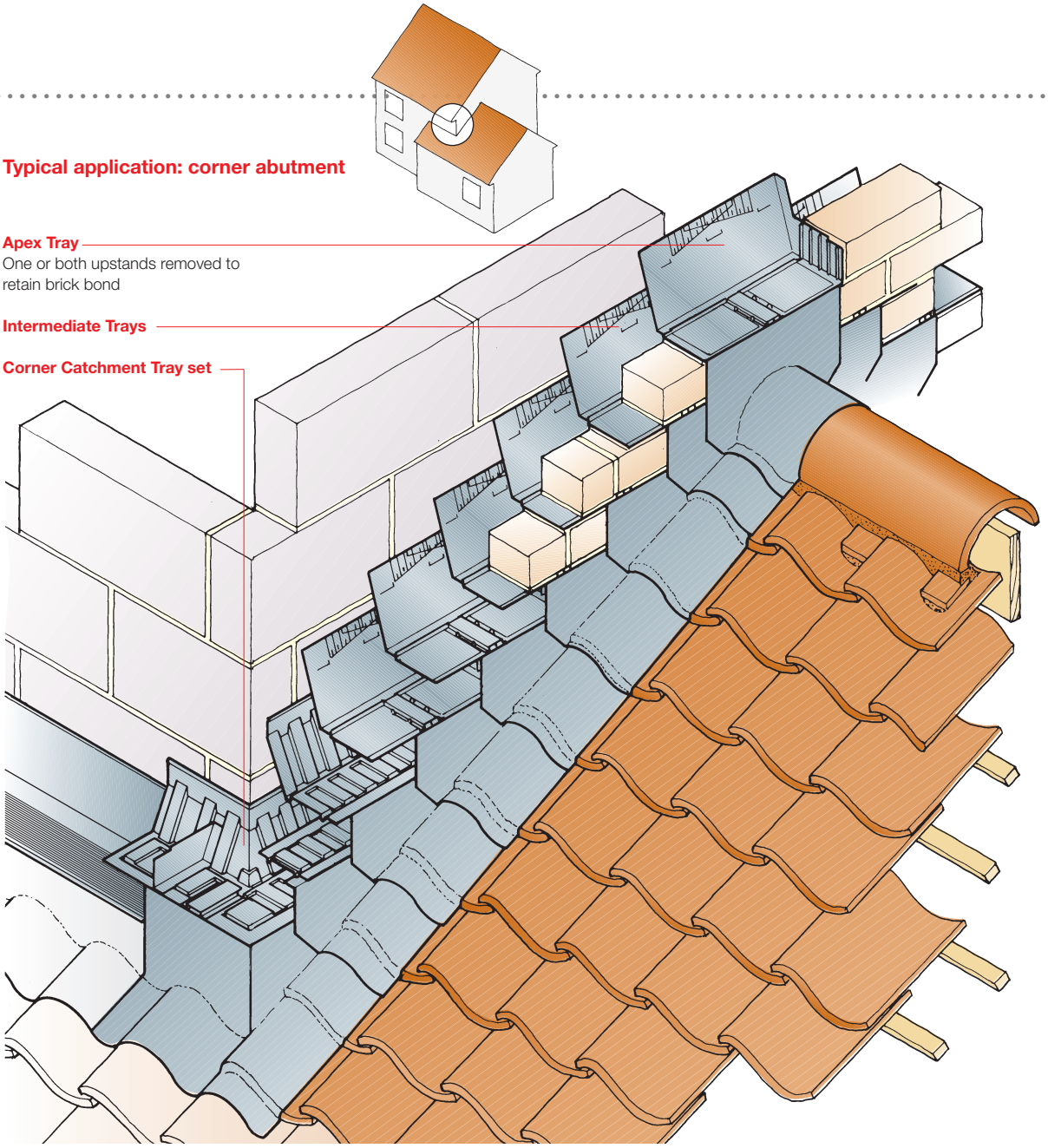


Table 1 Intra Weep AT range and Corner Catchment Tray Set for brickwork

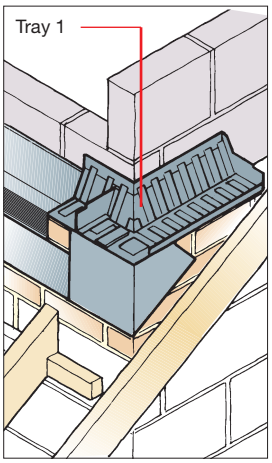
	Tray type	Length (mm)	Code left hand	right hand	non handed	For roof pitches
Without flashings	Intermediate	310	AT302	AT301		20° - 55°
	Catchment/Apex	320			AT300	20° - 55°
	Corner Catchment Set		CCS LH	CCS RH		20° - 37.5°, 40° - 50°, 55°
With factory-fitted flashings	Intermediate	310	AT302*	AT301*		20°, 25°, 30°, 35°, 40°, 45°, 50°, 55° **
	Catchment	320	AC302*	AC301*		20°, 25°, 30°, 35°, 40°, 45°, 50°, 55° **
	Apex	320			AT300*	20° - 35°, 40° - 55°
	Corner Catchment Set		CC LH*	CC RH*		20°, 25°, 30°, 35°, 40°, 45°, 50°, 55° **

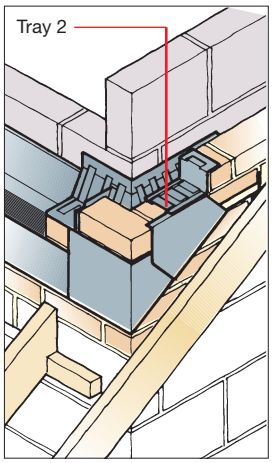
*Add /L for long flashing or /S for short flashing. Use long flashings for dressing over profiled tiles. Use short flashings for dressing over the upstand of soakers. For flat interlocking tiles see ASG Abutment Secret Gutter.
**For 2.5° increments use the tray designed for the next higher pitch, eg for a 32.5° roof pitch, use a 35° tray.

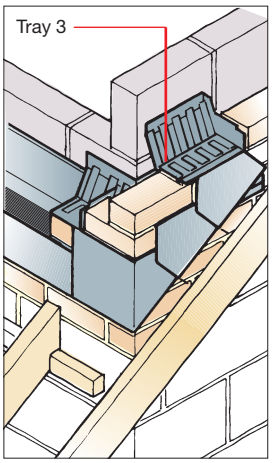
Typical application: corner abutment

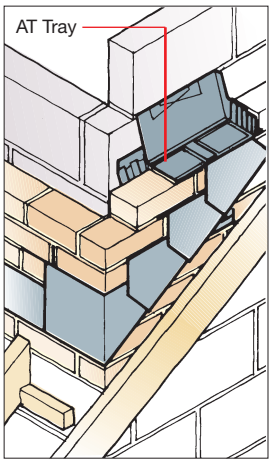


Corner Catchment Tray set: installation
Position trays in successive courses of brickwork









Specification clauses

Intra Weep AT Abutment Trays for brickwork

Provide cavity trays at roof/wall abutments to comply with BS 8215. Trays to be Glidevale Intra Weep AT Abutment Trays, preformed, self-supporting, each tray with integral weep, and pitch marks.

*Trays without factory-fitted flashing: After mortar has set, remove mortar protector from each tray to leave 25mm deep groove for flashing to comply with Lead Sheet Association recommendations.

*Trays with factory-fitted flashing: Each tray to have factory-fitted AluFlash or code 4 lead flashing to BS EN 12588 with butyl seal between lead and tray, to suit roof pitch and covering.

Corner Catchment Tray Set for Brickwork

Provide cavity trays at corner abutment junction to comply with BS 8215. Trays to be Glidevale Corner Catchment Tray Set, preformed and self-supporting with integral bedweep.

Tray Set ref: CC RH/LH 20-37.5º/40-50º, 55º * (without factory-fitted flashing).

Tray Set ref: CC RH/LH pitch L/S*, with factory-fitted AluFlash or code 4 lead flashing to BS EN 12588, with butyl seal between lead and tray, to suit roof pitch.

All trays

Install in accordance with manufacturer's instructions.

*delete as appropriate.

Supplied by Glidevale, 2 Brooklands Road, Sale, Cheshire M33 3SS, Tel: 0161 905 5700. Fax: 0161 905 2085. Email: info@glidevale.com.

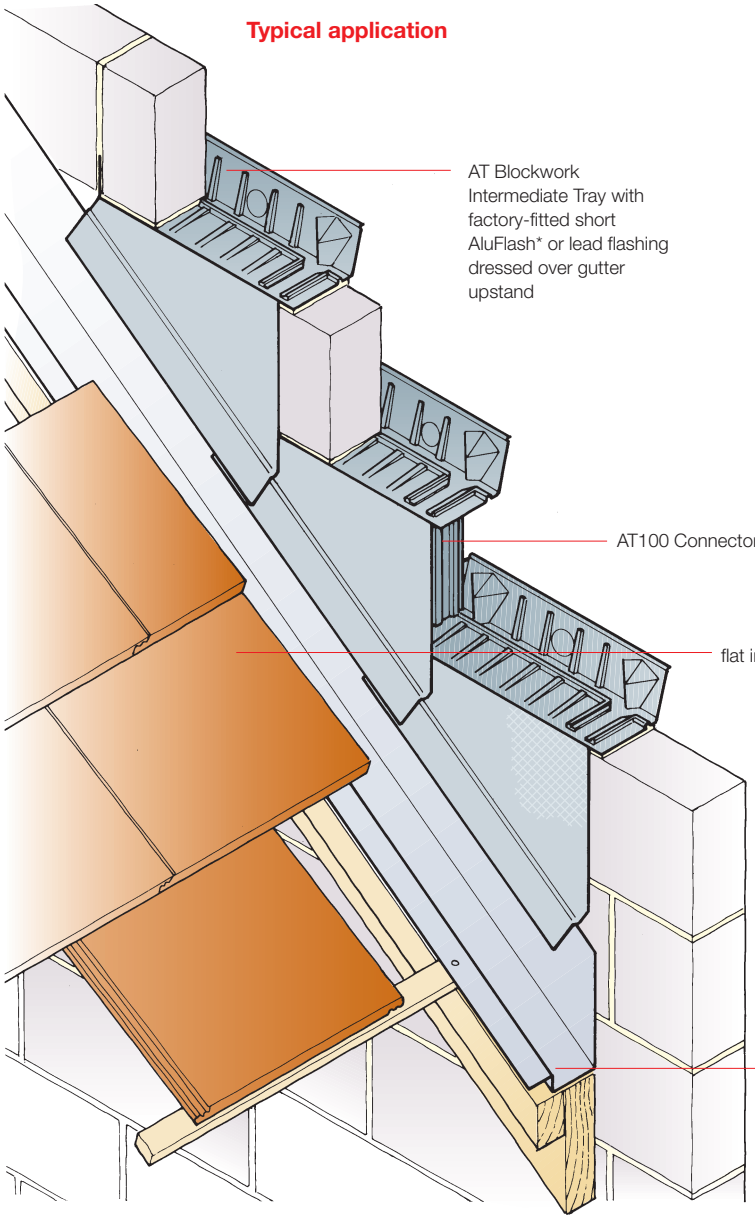
AT BLOCKWORK ABUTMENT TRAYS

Use

AT Trays for abutments to blockwork are available in three sizes for different roof pitches and course heights (see Table 2). Manufactured from polypropylene.

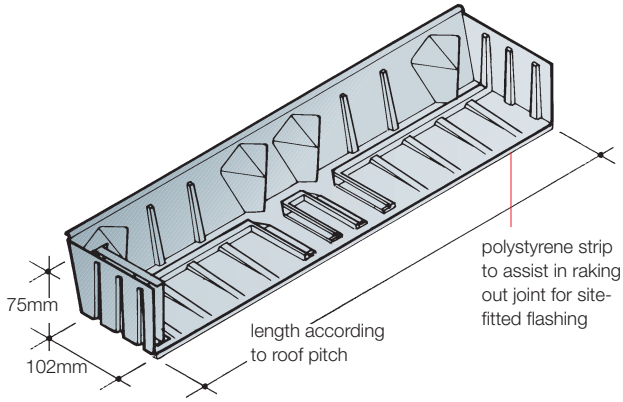
Intermediate Trays are handed. Catchment and Apex Trays are identical and suit all roof pitches from 25° to 55°. Due to the size of blocks compared to bricks (typically 225mm course height) the trays do not sit directly on top of each other, and the AT100 Connector Unit is used to weather the vertical face of all blocks between trays.

Typical application

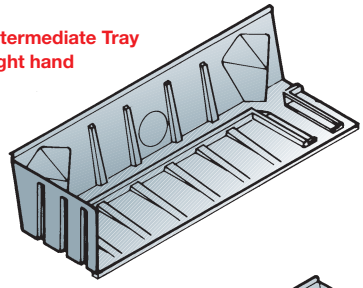


AT Blockwork Tray range

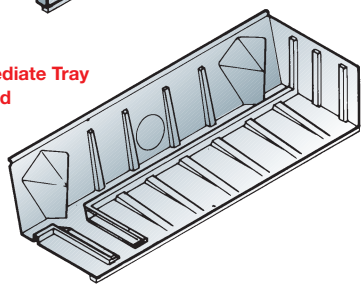
Apex Tray/Catchment Tray



Intermediate Tray right hand

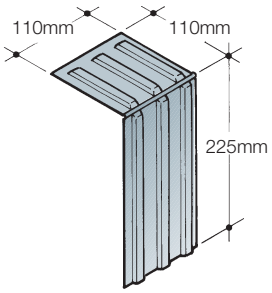


Intermediate Tray left hand



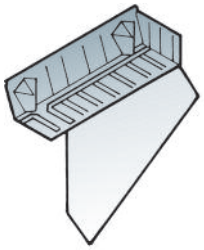
AT100 Connector Unit

(cut down for 150mm course height)



* Short flashings embossed finished, long flashings cross-corrugated finish

Intermediate Tray left hand

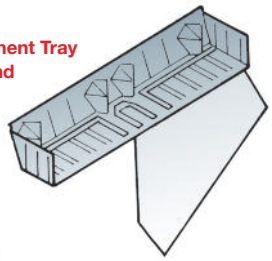


Trays with factory-fitted flashing

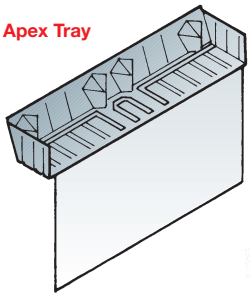
AT Blockwork Trays are also available with optional factory-fitted AluFlash or lead flashings, avoiding the need to cut and dress flashings on site.

Catchment and Apex Trays with factory-fitted flashing differ, and the Catchment and Intermediate Trays are handed.

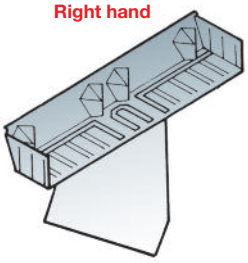
Catchment Tray left hand



Apex Tray



Catchment Tray Right hand



Intermediate Tray right hand

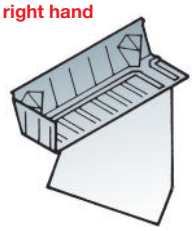


Table 2 AT Trays for Blockwork

Roof pitch**	Course height† 150mm left hand	150mm right hand	225mm left hand	225mm right hand
Intermediate Trays (available with or without flashing)				
25°	AT602*	AT601*	AT602*	AT601*
30°	AT402*	AT401*	AT602*	AT601*
35°	AT402*	AT401*	AT602*	AT601*
40°	AT302*	AT301*	AT402*	AT401*
45°	AT302*	AT301*	AT402*	AT401*
50°	AT302*	AT301*	AT302*	AT301*
55°	AT302*	AT301*	AT302*	AT301*
Catchment/Apex Trays (without flashing)				
25° - 30°	AT600 (non-handed)		AT600 (non-handed)	
35° - 45°	AT300 (non-handed)		AT600 (non-handed)	
50° - 55°	AT300 (non-handed)		AT300 (non-handed)	
Catchment Trays (available with flashing)				
25° - 30°	AC602*	AC601*	AC602*	AC601*
35° - 45°	AC302*	AC301*	AC602*	AC601*
50° - 55°	AC302*	AC301*	AC302*	AC301*
Apex Trays (available with flashing)				
25° - 35°	AT600* (non-handed)		AT600* (non-handed)	
40° - 55°	AT300* (non-handed)		AT600* (non-handed)	
Connector Unit (used with all trays)				
25° - 55°	AT100 (non-handed)		AT100 (non-handed)	

*Add /L for long flashing or /S for short flashing and /150 or /225 to denote course height.
Use long flashings for dressing over profiled tiles. Use short flashings for dressing over the upstand of soakers.
For flat interlocking tiles see ASG Abutment Secret Gutter.
**For 2.5° roof pitches, use the tray designed for the next higher pitch, eg for a 32.5° roof pitch use a 35° tray.
†For 75mm course heights use Intra Weep Abutment Trays.

Appearance of flashing

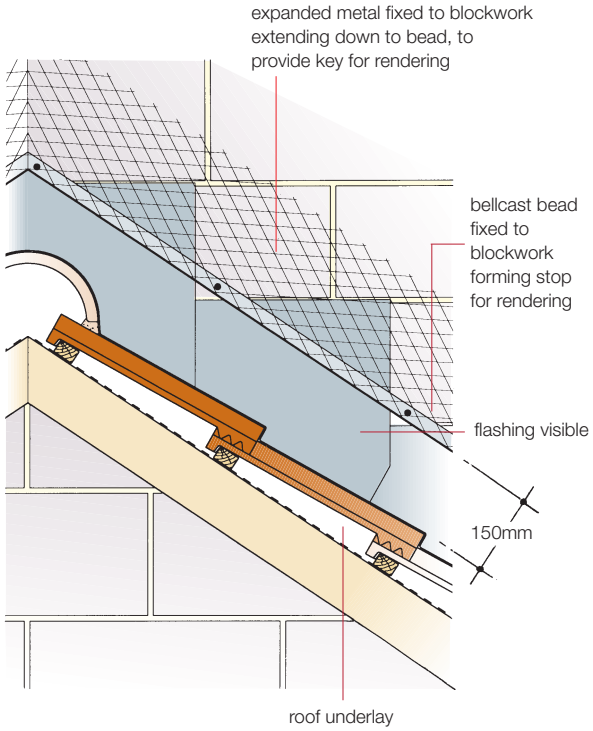
Due to the size of blocks the amount of exposed flashing may not be aesthetically acceptable. This can be reduced by one of the the following methods:

Using brickwork around the cavity trays
The bricks will be hidden by the flashings. In this case use Intra Weep AT Abutment Trays, see page 10 for further information.

Rendering the wall

Rendering should not be applied directly to flashings as this restricts movement and could cause splitting of the flashing or detachment of the rendering. Fix expanded mesh to the blockwork, extending down to a bellcast stop bead 150mm off the finished roof line, partly covering the lead; this provides a key for the render and enables the lead to move.
The rendering will block the tray discharge channels, so an MV650 Microvent Weephole is supplied with the Catchment Tray. Ensure this is kept clear of render and mortar.

Rendering to reduce exposed lead



AT ABUTMENT TRAYS

Specification clauses

AT Trays for blockwork (without factory-fitted flashing)

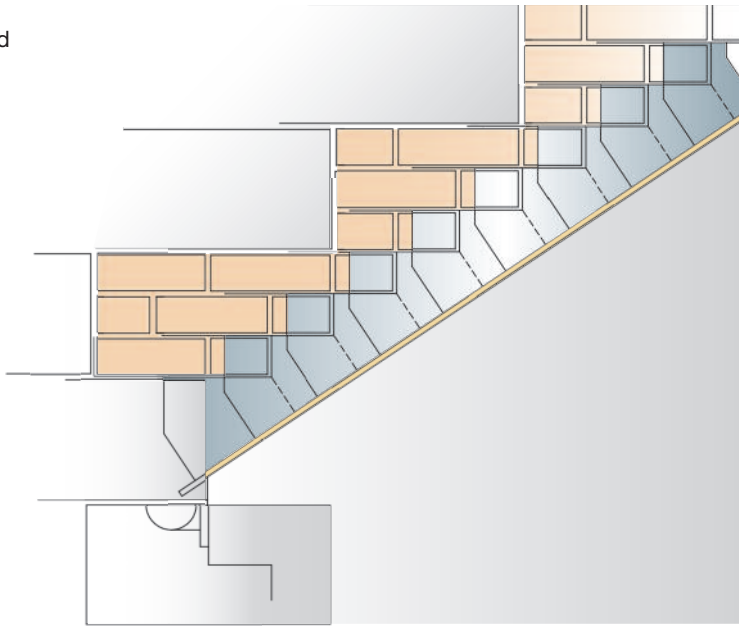
Provide cavity trays at roof/wall abutments to comply with BS 8215. Trays to be Glidevale AT Blockwork Abutment Trays, preformed and self-supporting. Install in accordance with manufacturer's instructions. After installation rake out polystyrene strip from each tray to leave 25mm deep groove for flashing to comply with Lead Sheet Association recommendations.

AT Trays for blockwork (with factory-fitted flashing)

Provide cavity trays at roof/wall abutments to comply with BS 8215. Trays to be Glidevale AT Blockwork Abutment Trays, preformed and self-supporting, each tray with factory-fitted AluFlash or code 4 lead flashing to BS EN 12588 with butyl seal between lead and tray, to suit roof pitch, roof covering and course height. Install in accordance with manufacturer's instructions.

Supplied by Glidevale,
2 Brooklands Road,
Sale, Cheshire M33 3SS,
Tel: 0161 905 5700.
Fax: 0161 905 2085.
Email:
info@glidevale.com.

The size of cover flashings required for blockwork abutments can be very large and expensive. It is possible to maintain the weather integrity of the abutment and both improve the finished appearance and reduce the cost of the flashings by utilising 75mm coursed Intraweep trays along the line of the abutment and subsequently 'course out' above the trays to resume the larger module size of the blocks. the coursing work will be hidden by the subsequent render application as shown.

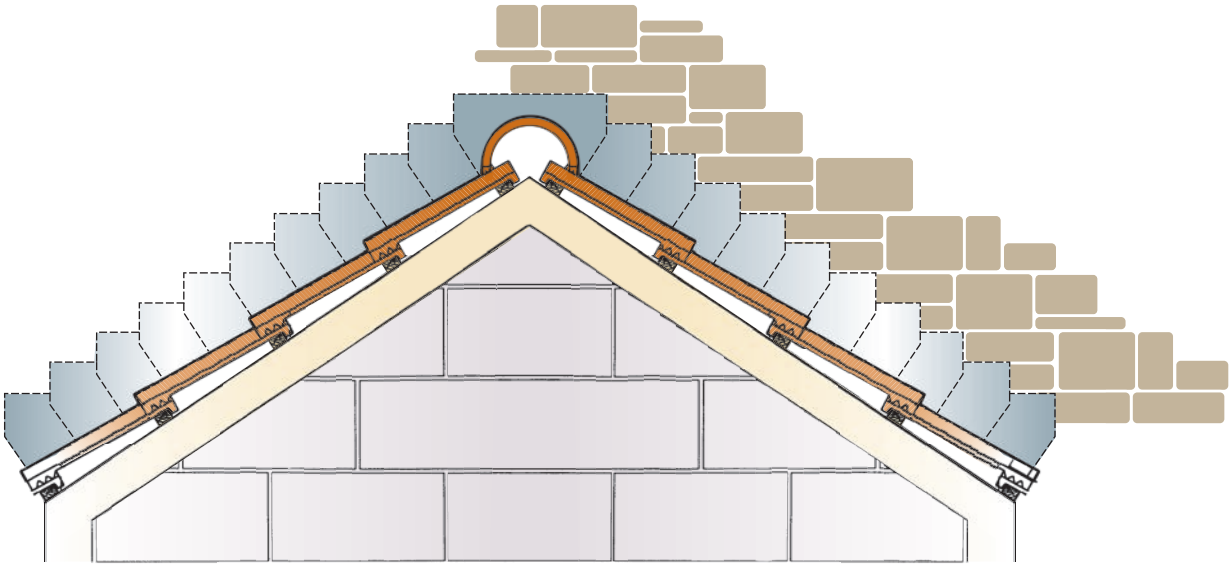


Random course stonework

The random nature of natural stonework course heights can result in variable, and sometimes, unsightly weather flashings along the line of the roof abutment, detracting from the overall aesthetics.

Coursing in with 75mm course height Intraweep trays along the line of the abutment will provide a neat, consistent coursing to the flashings, and the stonework can be coursed above the abutment line to retain it's random appearance.

Any coursing work below the cavity trays will be completely hidden by the subsequent weather flashings as depicted here.



HT HORIZONTAL TRAYS

Use

HT Horizontal Trays are used:

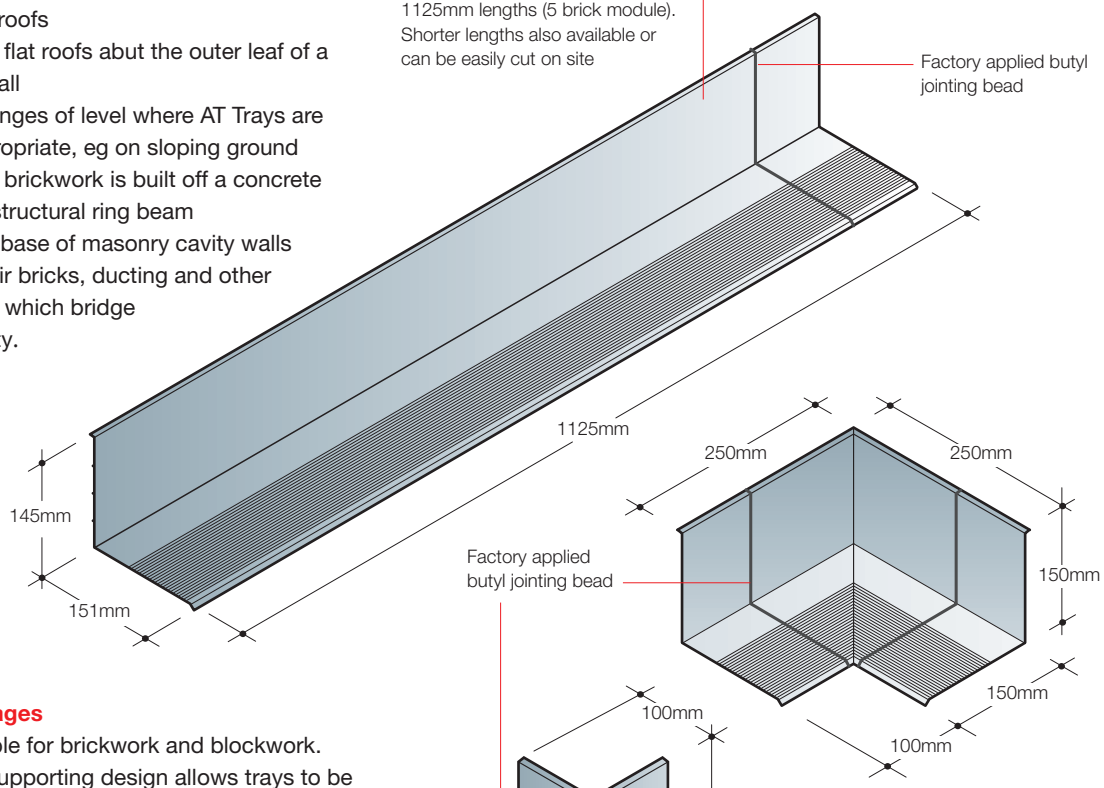
- at top edge abutments of lower level pitched roofs
- where flat roofs abut the outer leaf of a cavity wall
- at changes of level where AT Trays are not appropriate, eg on sloping ground
- where brickwork is built off a concrete slab or structural ring beam
- at the base of masonry cavity walls
- over air bricks, ducting and other services which bridge the cavity.

Advantages

- Suitable for brickwork and blockwork.
- Self-supporting design allows trays to be used with cavity widths from 50mm upwards without the need to build-in to the inner leaf.
- Avoids the need to build inner and outer leaves together and to line up bed joints in brickwork and blockwork leaves.
- The tray lip projects slightly from the wall when installed. This gives a neater appearance than conventional dpcs and prevents pointing over, a common fault.
- Preformed from ABS, with internal and external angles and stop ends.
- Optional factory-fitted AluFlash or lead flashings remove the need to rake out joints and point in flashings, saving time, cost and additional trades.
- Integral butyl jointing bead ensures overlap of at least 100mm as recommended by BS 8215 (Section 6.3 Table 3). Each component has a pre-applied butyl seal.
- Complies with BS EN 1996-2.
- Comprehensive installation instructions provided.

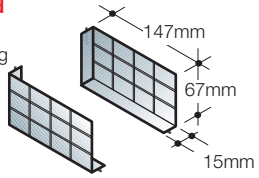
HT Tray range

HT5 Horizontal Tray,
1125mm lengths (5 brick module). Shorter lengths also available or can be easily cut on site

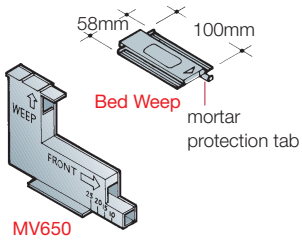


HT21 Internal corner
HT22 External corner
Overcome the problem of site fabrication of difficult junctions. Overlap with HT Trays to form a continuous weatherproof cavity tray.

HT11 Left hand stop end
HT12 Right hand stop end
Provide protection to the ends of a tray run, preventing moisture from entering the cavity in compliance with BS EN 1996-2 and BS 8215.

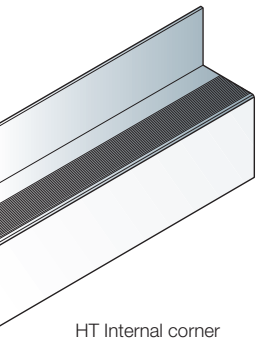


Bed Weep or MV650 Perpend Weep
Option of fitting in bed or perpend joint to allow water to drain from the trays in compliance with BS EN 1996-2 and BS 8215. The Bed Weep mortar protection tab is removed after installation to leave a clean and effective weep hole.

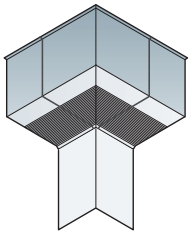


HT HORIZONTAL TRAYS

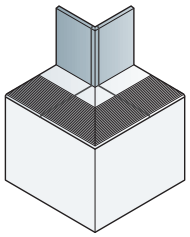
HT Horizontal Trays with factory-fitted flashing



HT Internal corner



HT External corner



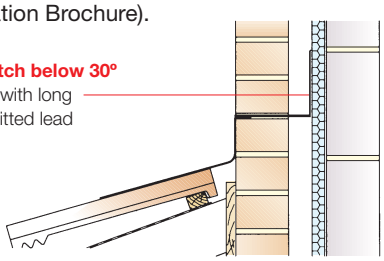
HT Trays with factory-fitted flashing

HT Trays are also available with factory-fitted AluFlash* or code 4 lead flashings to BS EN 12588, for use at the abutment of a lean-to or flat roof with a wall. HT trays fitted with AluFlash are supplied with 225mm flashings suitable for all applications.

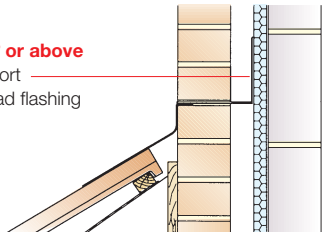
Long or short lead flashings are available to dress down over the roof covering in accordance with Lead Sheet Association recommendations as follows:
- long flashings: roof pitches below 30°
- short flashings: roof pitches 30° and above.

For flat roofs use the short flashing to cover the roof upstand by a minimum of 75mm. Where high-level ventilation is required, use HT Trays with short flashings and the MR50 Monovent (refer to the Glidevale Abutment Ventilation Brochure).

Roof pitch below 30°
HT Tray with long factory-fitted lead flashing



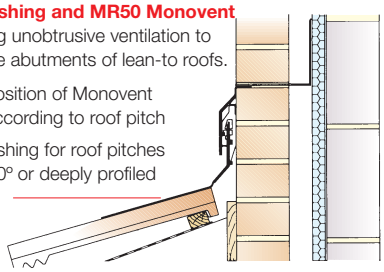
Roof pitch 30° or above
HT Tray with short factory-fitted lead flashing



Use of HT Trays with factory-fitted AluFlash or lead flashing and MR50 Monovent
providing unobtrusive ventilation to top edge abutments of lean-to roofs.

Fixing position of Monovent varies according to roof pitch

Long flashing for roof pitches below 30° or deeply profiled roof tiles



Short flashing for roof pitches 30° and above

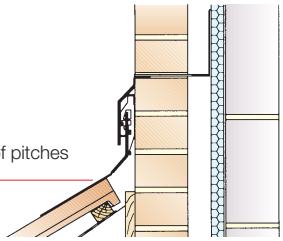
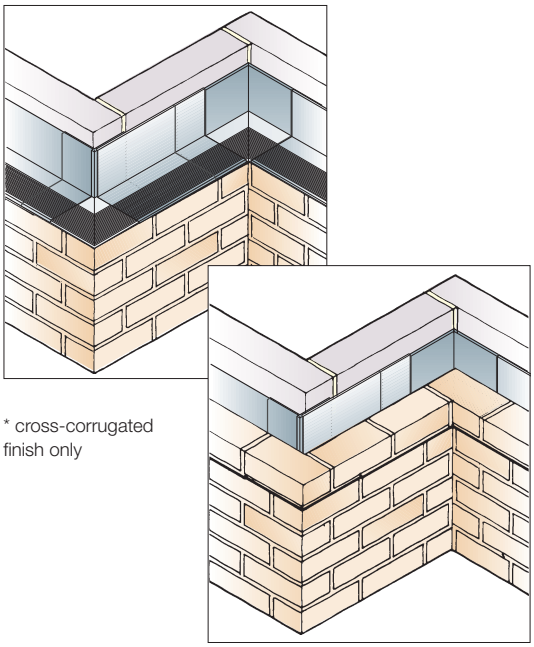


Table 3
HT Trays with factory-fitted flashing

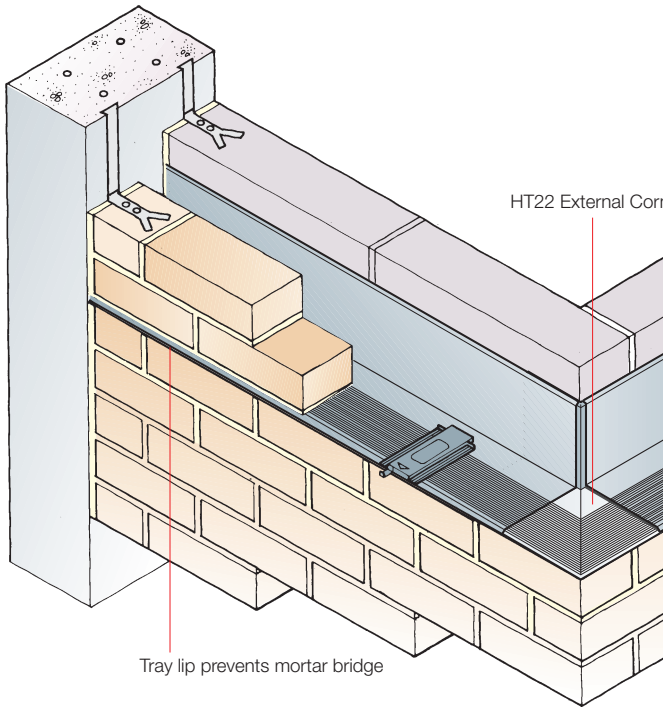
Tray type code†	Brick module	Length (mm)
HT3	3	675
HT4	4	900
HT5	5	1125
HT21	Internal corner	-
HT22	External corner	-

†Add /L for long flashing or /S for short flashing.

Installation of external and internal corners

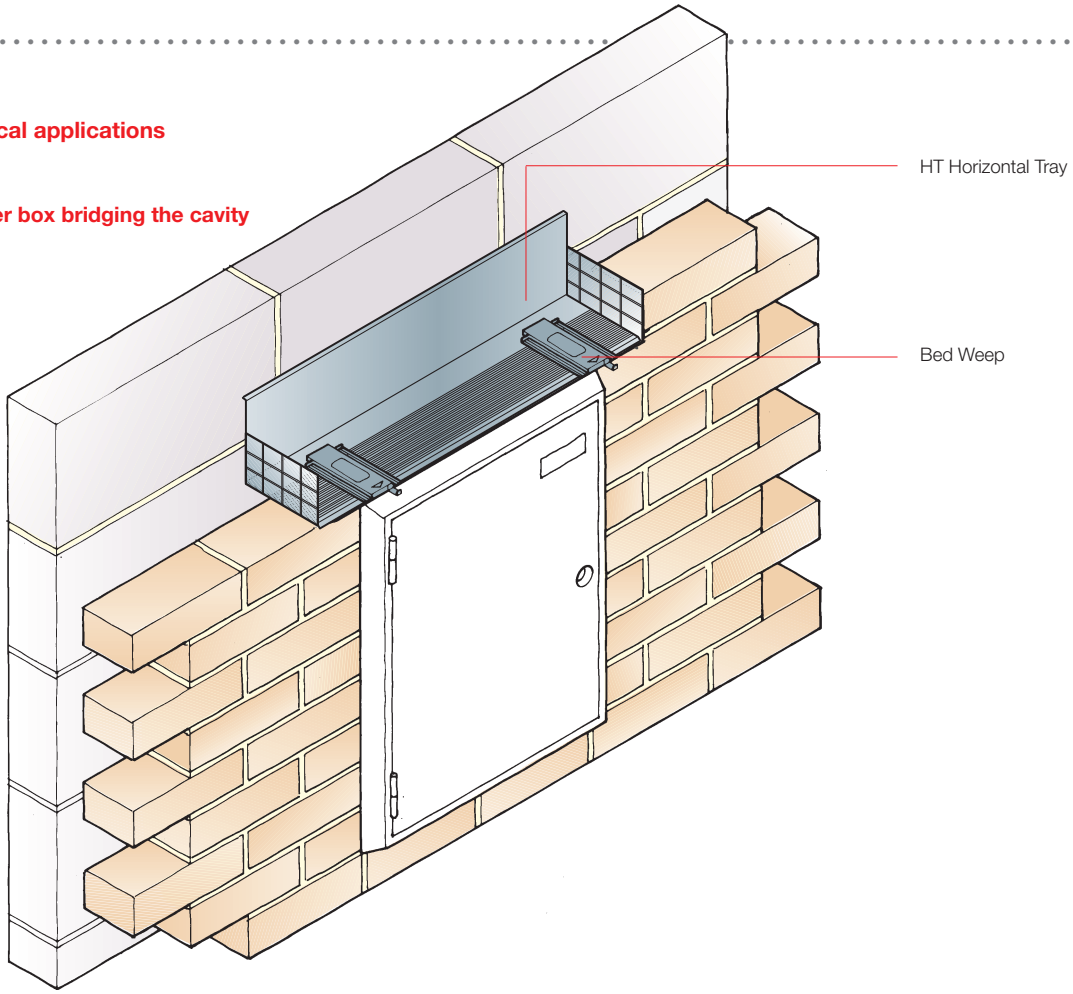


* cross-corrugated finish only

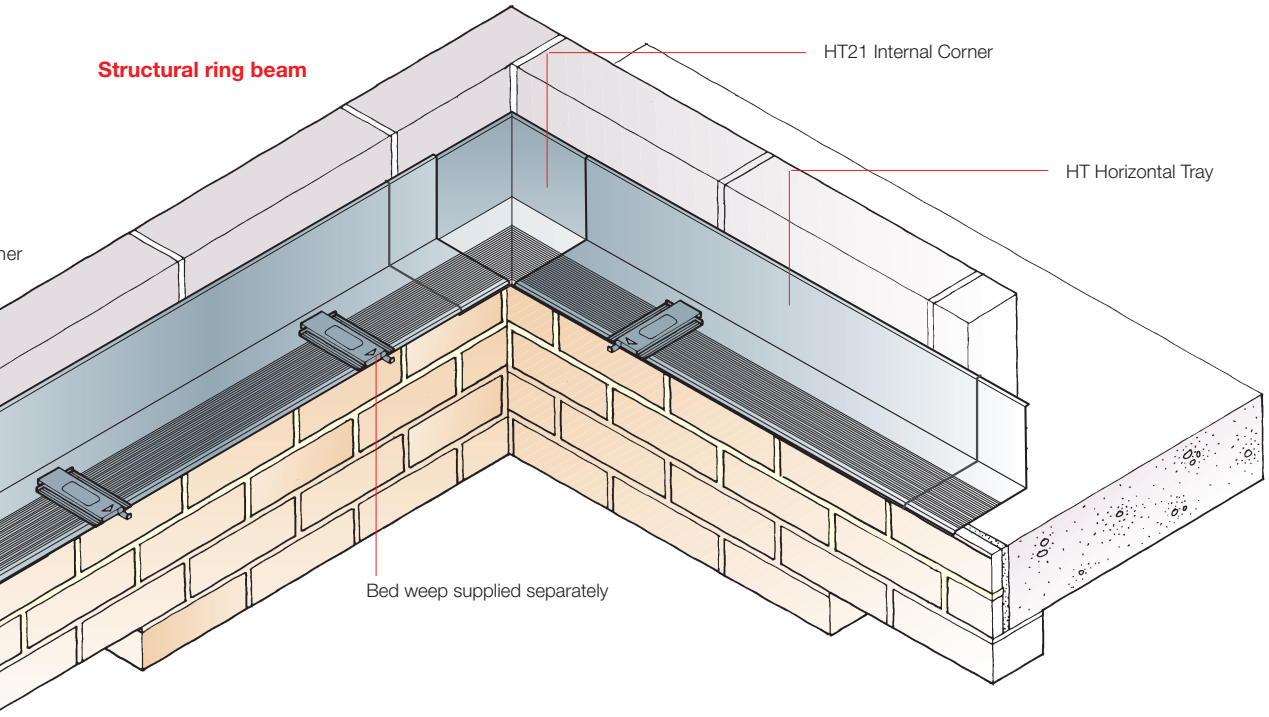


Typical applications

Meter box bridging the cavity



Structural ring beam



Specification clauses

HT Horizontal Trays (without factory-fitted flashing)

Provide horizontal cavity trays to comply with BS 8215. Trays to be Glidevale HT Horizontal Trays, preformed and self- supporting. Install in accordance with manufacturer's instructions using Bed Weeps and other HT Tray accessories, with pre-applied butyl seal at each overlap.

HT Horizontal Trays (with factory-fitted flashing)

Provide horizontal cavity trays to comply with BS 8215. Trays to be Glidevale HT Horizontal Trays, preformed and self- supporting. AluFlash or code 4 lead flashing to BS EN 12588 factory-fitted to each tray with butyl seal between lead and tray, to suit roof pitch. Install in accordance with manufacturer's instructions using Bed Weeps and other HT Tray accessories, with pre-applied butyl seal at each overlap.

Supplied by Glidevale, 2 Brooklands Road, Sale, Cheshire M33 3SS, Tel: 0161 905 5700. Fax: 0161 905 2085. Email: info@glidevale.com.

HTR REFURBISHMENT TRAYS

Use

HTR Refurbishment Trays are used for refurbishment work and repairs to failed cavity trays. HTR Trays are particularly useful where an extension with a lean-to or flat roof is built against an existing cavity wall.

Advantages

- Each 550mm unit is supplied with an integral bedweep, so no separate weepholes are required.
- The 2 1/2 brick length is designed for ease of sequential installation.
- The self-supporting design allows the trays to be used with cavities of varying width from 50mm upwards without the need to build-in to the inner leaf.
- The tray lip projects slightly from the wall when installed. This gives a neater appearance than conventional dpc materials and avoids being pointed over, a common fault which can form a bridge for damp.
- Complies with BS EN 1996-2.
- Comprehensive installation instructions provided.

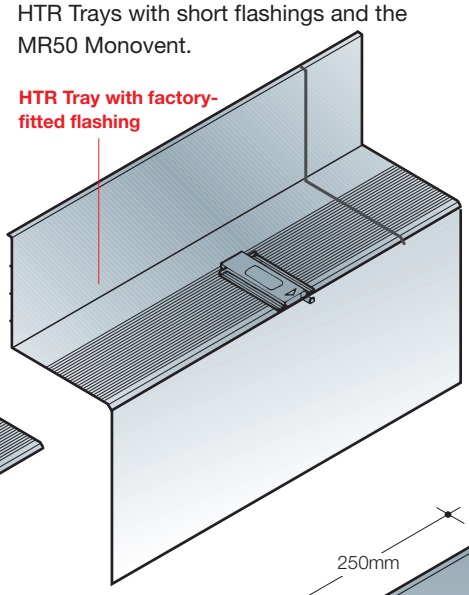
HTR Trays with factory-fitted flashing

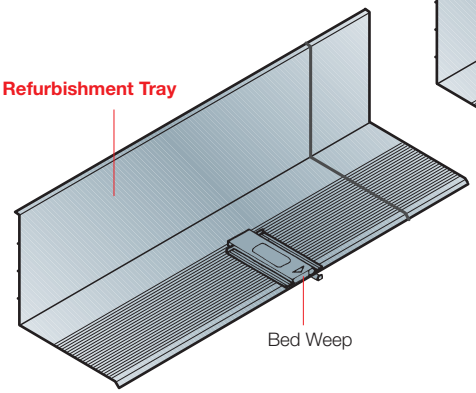
HTR Trays are also available with factory-fitted AluFlash* or code 4 lead flashings to BS EN 12588, for use at the abutment of a lean-to or flat roof with a wall. These remove the need to rake out joints and subsequently point in flashings, saving time, cost and the need for additional trades.

Long or short flashings are available to dress down over the roof covering in accordance with Lead Sheet Association recommendations as follows:

- long flashings: roof pitches below 30°
- short flashings: roof pitches 30° and above.

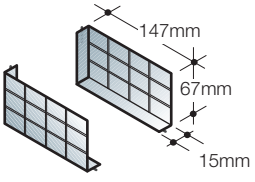
For flat roofs use the short flashing to cover the roof upstand by a minimum of 75mm. Where high-level ventilation is required, use HTR Trays with short flashings and the MR50 Monovent.

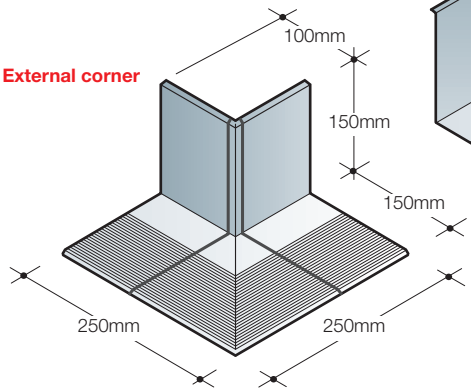


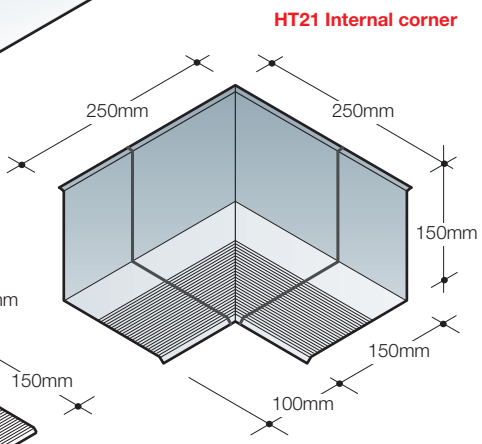


HT11 Left hand stop end
HT12 Right hand stop end

Provide protection to the ends of a tray run, preventing moisture from entering the cavity in compliance with BS EN 1996-2 and BS 8215.







* cross-corrugated finish only

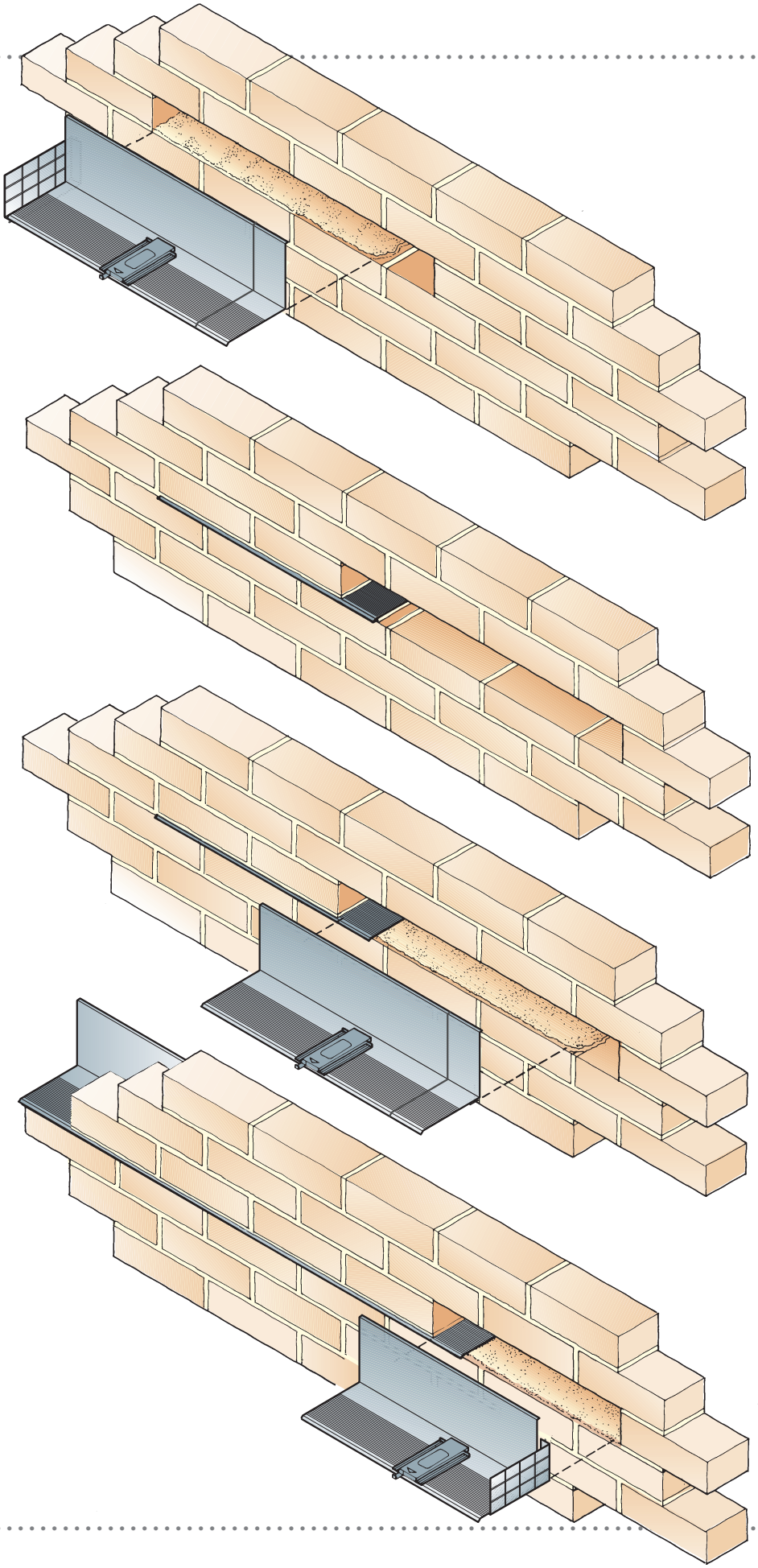
Installation method

Cut out three bricks. Fit an HT11 stop end to an HTR Tray unit and install on a bed of mortar at the start of the run.

Replace two bricks, wedged and bedded on mortar, then cut out the next two bricks.

Install the next HTR Tray unit on a mortar bed, overlapping the first tray by 100mm and sealing the joint with the integral butyl jointing bead.

Continue along the wall in the same way. Fit a HT12 stop end at the end of the run.



Specification clauses

HTR Refurbishment Trays (without factory-fitted flashing)
Provide horizontal trays to comply with BS 8215. Trays to be Glidevale HTR Refurbishment Trays, preformed and self-supporting with integral weep. Install in accordance with manufacturer's instructions using where necessary HTR accessories, with pre-applied butyl seal at each overlap.

HTR Refurbishment Trays (with factory-fitted flashing)
Provide horizontal trays to comply with BS 8215. Trays to be Glidevale HTR Refurbishment Trays, preformed and self-supporting with integral weep. AluFlash or code 4 lead flashing to BS EN 12588 factory-fitted to each tray with butyl seal between lead and tray, to suit roof pitch. Install in accordance with manufacturer's instructions using where necessary HTR accessories, with pre-applied butyl seal at each overlap.

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2 Brooklands Road,
Sale, Cheshire M33 3SS,
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Email:
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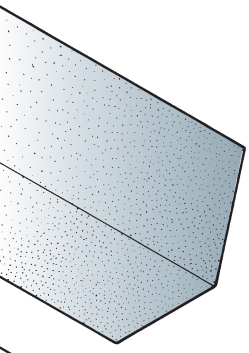
MCR PREFORMED MULTI-CREASE SYSTEM

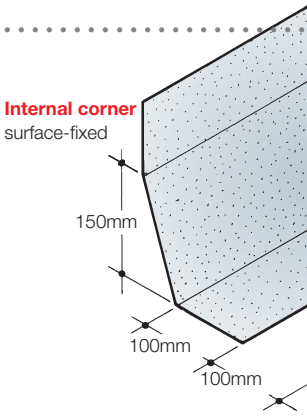


Use

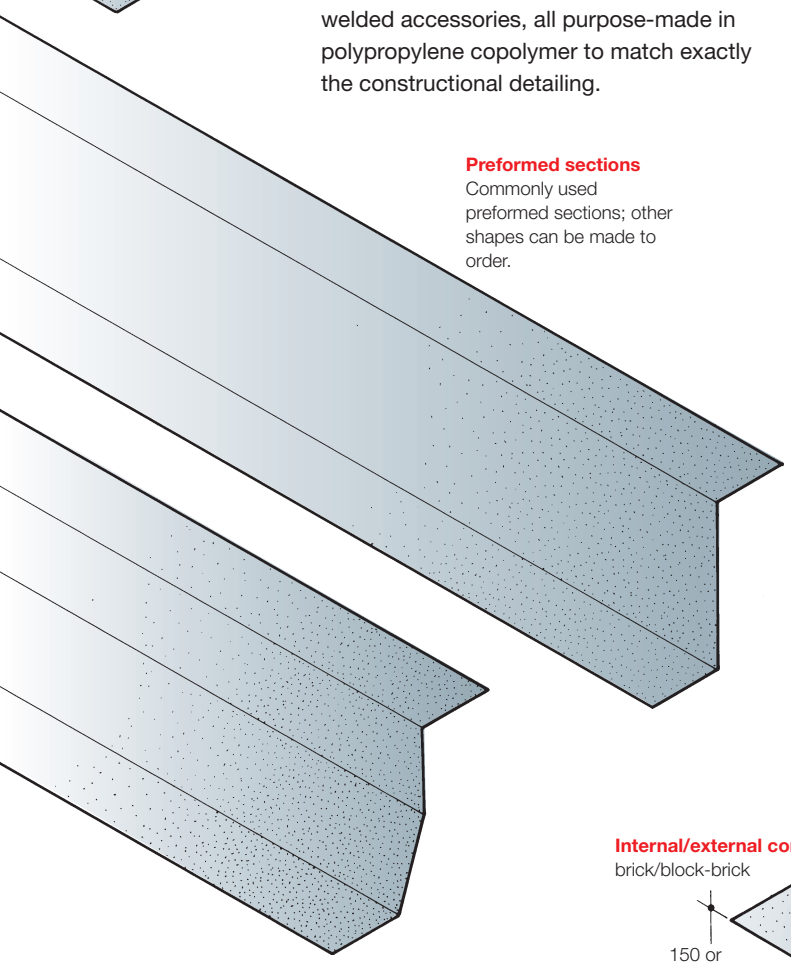
The Glidevale Preformed Multi-crease system has been developed for use in larger commercial projects where there may be many repetitive or complex cavity tray design details. The system comprises preformed straight runs and moulded or welded accessories, all purpose-made in polypropylene copolymer to match exactly the constructional detailing.

Advantages

- Bespoke products reduce wastage on site and ensure a faster installation than traditional methods.
- Preformed moulded or welded accessories remove the need for site fabrication and are more reliable.
- Cavity tray widths and other dimensions tailored to each application and detail.
- Proven bitumen butyl jointing system.
- Trays do not require support across the cavity.
- Non-slip textured finish for improved mortar adhesion.
- Complies with BS EN 1996-2: 2006 and BS 8215: 1991.
- Factory-fitted AluFlash or code 4 lead flashings to BS EN 12588: 2006 available where required, in a range of weights.



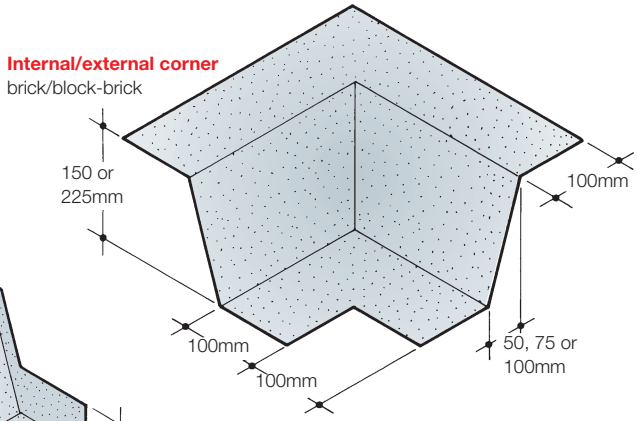
Preformed sections
Commonly used preformed sections; other shapes can be made to order.

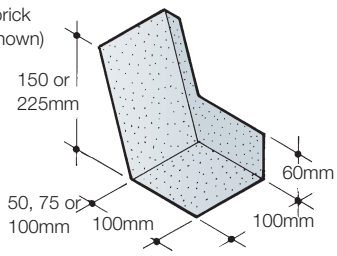


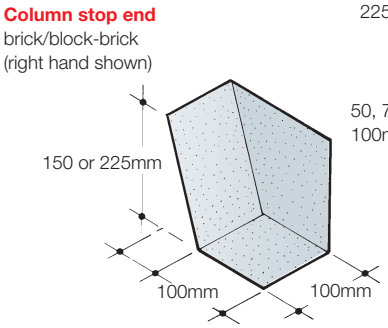
Accessories

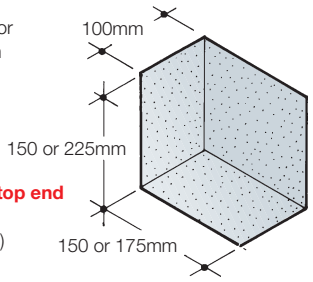
Commonly used preformed accessories are shown and can be made to order.

Some units are designed for building-in to both leaves of a cavity wall: either brick-brick or brick-block. Others are built-in to the outer leaf and rest against the face of the inner leaf, column etc.

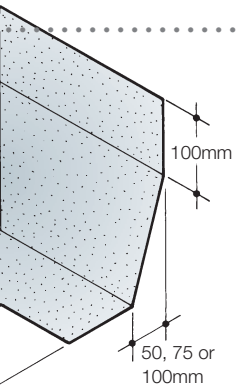




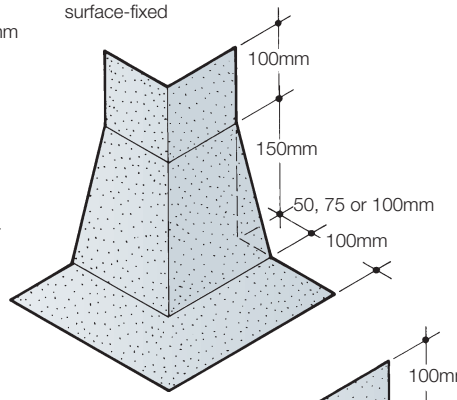




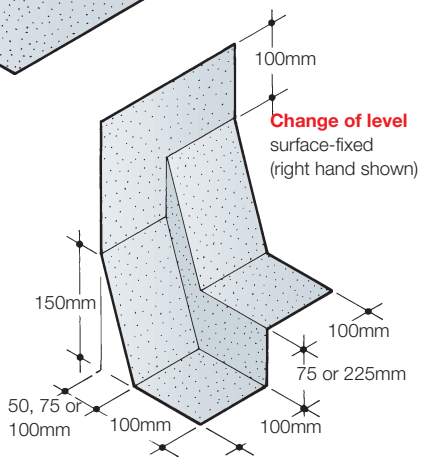
Beam/column stop end
brick/block-brick
(right hand shown)



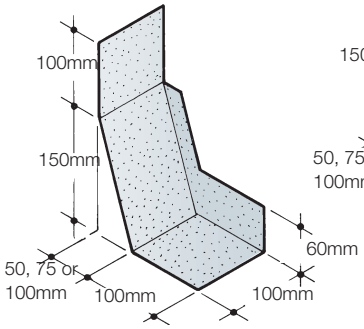
External corner
surface-fixed



Change of level
surface-fixed
(right hand shown)

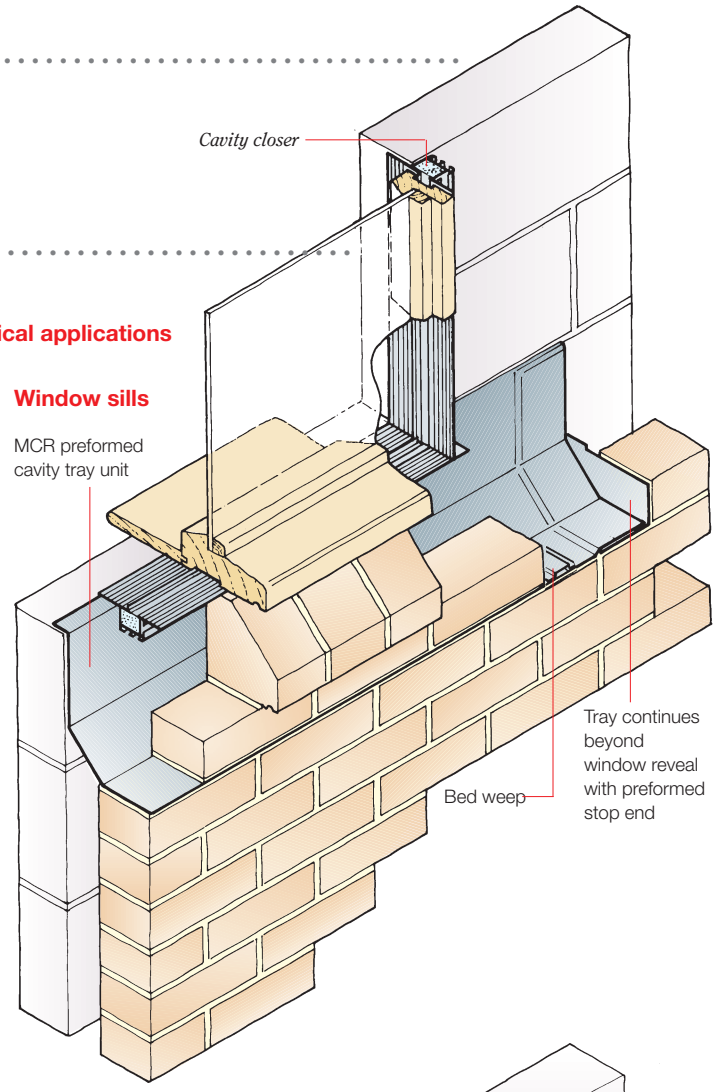


Stop end
surface-fixed
(right hand shown)

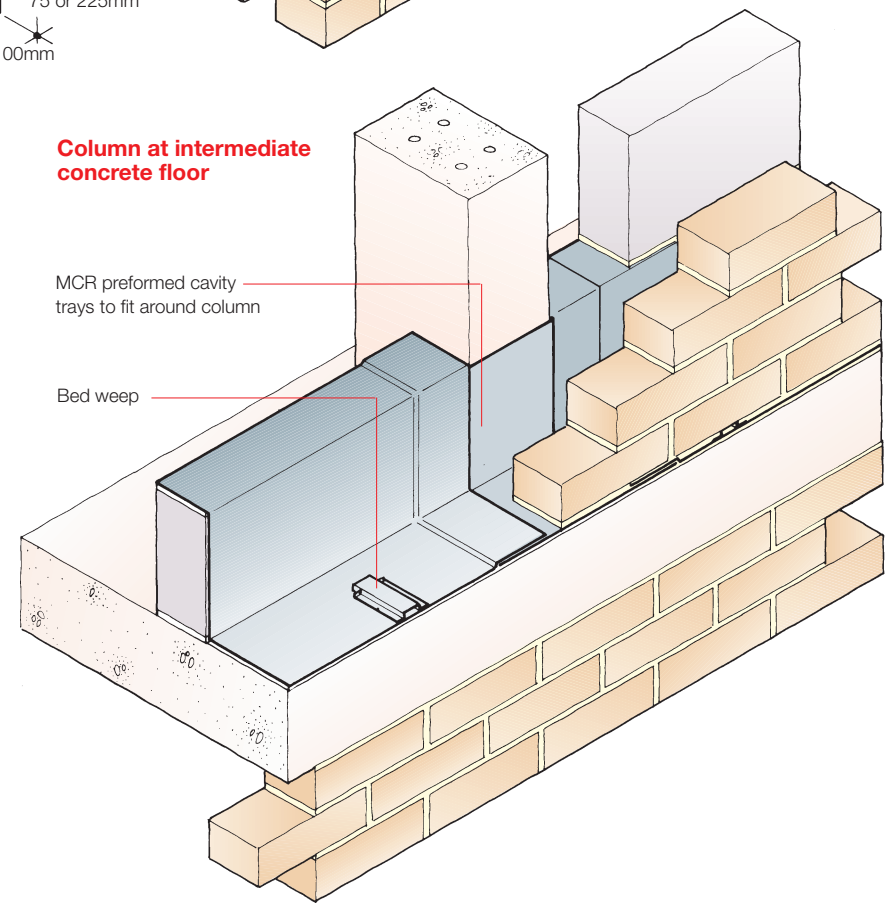


Typical applications

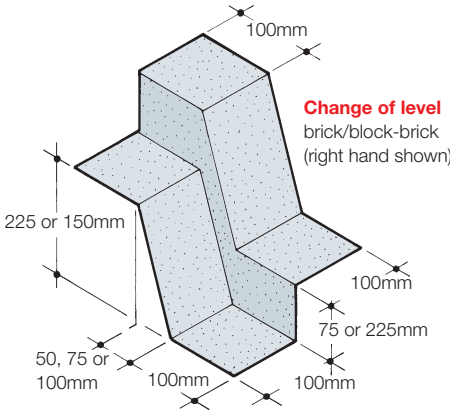
Window sills



Column at intermediate concrete floor



Change of level
brick/block-brick
(right hand shown)



PT PARAPET TRAYS

Use

PT Parapet Trays, manufactured from pre-creased polypropylene, are used for parapet walls to flat and pitched roofs where both brick skins are exposed to weather.

BS EN 1996-2 and BS 8215 recommend a cavity tray stepped down at least 150mm. There is no recommendation as to which way the tray should step down.

If stepped inwards, moisture could travel along the underside of the tray and into the building; however, this is only likely in very exposed situations. If stepped outwards, the tray will direct water to the outer face of the wall which may cause staining.

Advantages

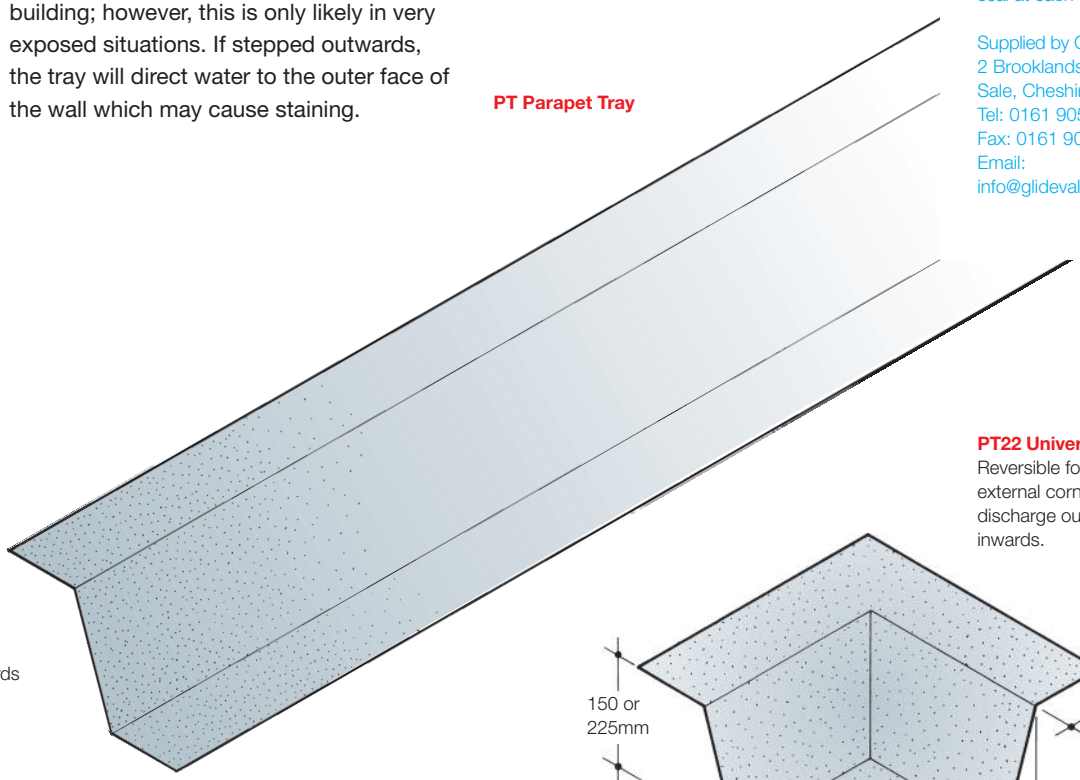
- Can be installed to direct water inwards or outwards as required.
- Complies with BS EN 1996-2 and BS 8215.
- Comprehensive installation instructions provided.
- Formed from continuous roll to reduce joints and overlaps.

Specification clause

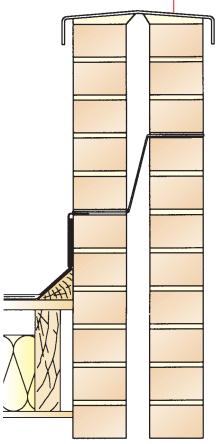
PT Parapet Trays
Provide parapet trays to comply with BS 8215. Trays to be preformed Glidevale Parapet Trays tied to both inner and outer leaves, preformed and self-supporting. Install in accordance with manufacturer's instructions using Bed Weeps and other PT Tray accessories, with pre-applied bitumen butyl seal at each overlap.

Supplied by Glidevale,
2 Brooklands Road,
Sale, Cheshire M33 3SS,
Tel: 0161 905 5700.
Fax: 0161 905 2085.
Email:
info@glidevale.com.

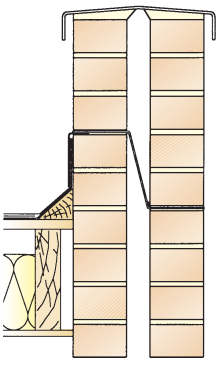
PT Parapet Tray



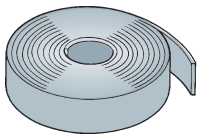
Coping System



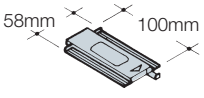
PT Tray directing water inwards

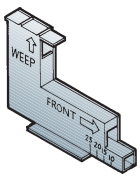


PT Tray directing water outwards



Tape
2m x 12mm Bitumen Butyl Jointing Tape

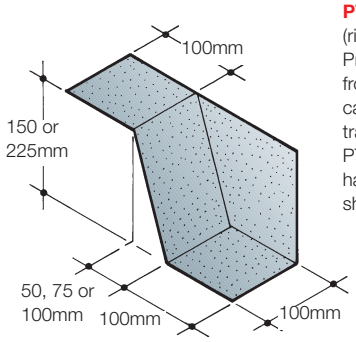




Bed Weep or MV650 Perpend Weep
Option of fitting in bed or perpend joint to allow water to drain from the trays in compliance with BS EN 1996-2 and BS 8215. Gives a neater appearance than an open perpend. The Bed Weep mortar protection tab is removed after installation to leave a clean and effective weep hole.

PT22 Universal Corner 90°
Reversible for internal or external corners, and to discharge outwards or inwards.

PT12 Stop End
(right hand)
Prevents moisture from entering the cavity at the ends of tray runs.
PT11 Stop End for left hand applications (not shown).



LT LINTEL TRAYS

Use

LT Lintel Trays, manufactured from pre-creased polypropylene, are used with steel lintels over openings. Steel lintels are sometimes claimed to act as cavity trays, but they lack stop ends, so there is a risk of water leakage at the ends unless they are extended well beyond the length needed for structural purposes. BS EN 1996-2 and BS 8215 recommend the use of cavity trays with stop ends over all openings. There is also a risk of corrosion of the lintel if the protective coating is scratched during bricklaying.

LT Lintel Trays with LTU Stop Ends solve all these problems. As steel lintels should last at least 60 years, they are a small price to pay for added protection.
For concrete or stone lintels it is normally possible to use HT Horizontal Trays with stop ends.

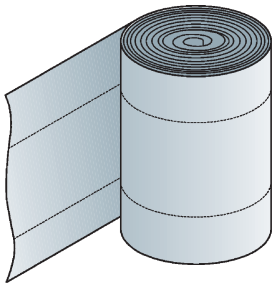
Advantages

- Suitable for brickwork and blockwork.
- Self-supporting design can be used with cavities from 50mm to 100mm without building-in to inner leaf.
- Stop Ends supplied separately can be positioned to fit brick perpends.
- Complies with BS EN 1996-2.
- Non-slip textured finish for improved mortar adhesion.
- Supplied by the metre to a maximum of 50m per roll; accommodates 1, 2 or 3 brick course heights.
- Suits most common types of steel lintel including Catnic, IG, BAT, Dorman Long, Birtley, Rom, Hilsmith and Asset Building Components.

Specification clause

LT Lintel Trays
Provide lintel trays at all openings to comply with BS 8215. Trays to be Glidevale LT Lintel Trays, preformed and self-supporting. Install with Bed Weeps and LTU Lintel Tray Stop Ends with pre-applied bitumen butyl seal, in accordance with manufacturer's instructions.

Supplied by Glidevale,
2 Brooklands Road,
Sale, Cheshire M33 3SS,
Tel: 0161 905 5700.
Fax: 0161 905 2085.
Email:
info@glidevale.com.



Typical application

AR ARCH & BE BULLSEYE WINDOW TRAYS

Specification clauses

AR Arch Trays
Provide dpcs to brick/block arches over openings using preformed purpose-made Glidevale AR Arch Trays with Stop Ends and Bed Weeps. Install in accordance with manufacturer's instructions.

BE Bullseye Window Trays
Provide dpcs to brick/block circular (bullseye) windows using preformed purpose-made Glidevale BE Bullseye Window Trays with Stop Ends and Bed Weeps. Install in accordance with manufacturer's instructions.

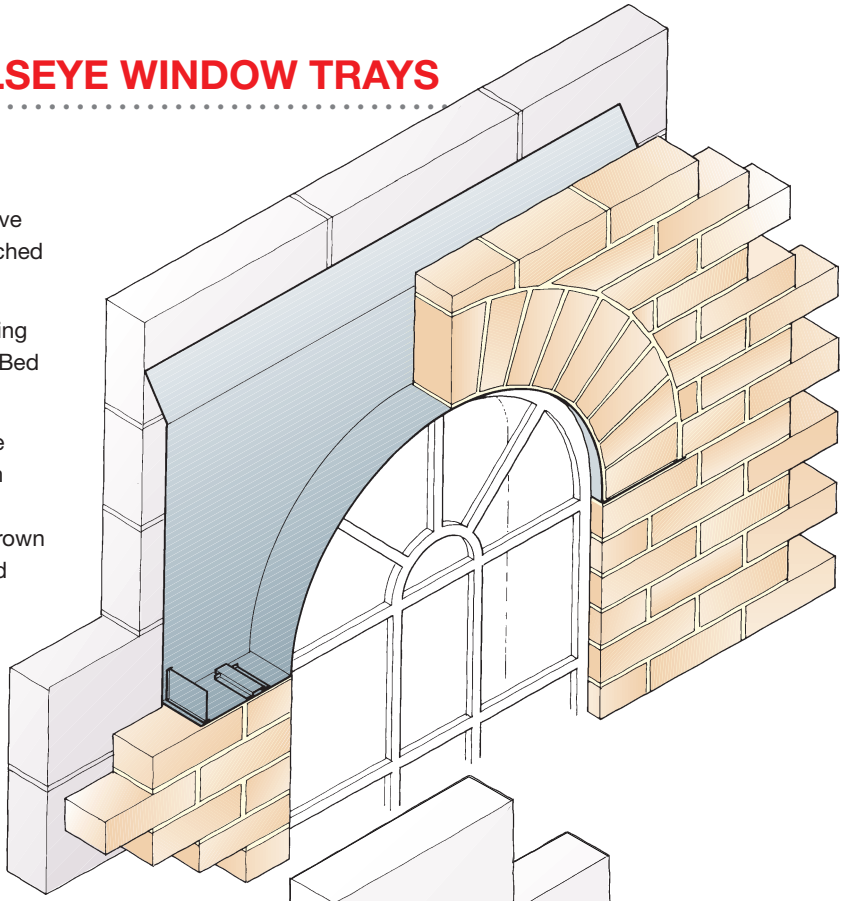
Supplied by Glidevale,
2 Brooklands Road,
Sale, Cheshire M33 3SS,
Tel: 0161 905 5700.
Fax: 0161 905 2085.
Email:
info@glidevale.com.

Use

Glidevale arch trays provide fully effective dpc protection to cavity walls above arched and curved openings.

Self-supporting designs do not need tying in to the inner leaf. LTU Stop Ends and Bed Weeps supplied separately.

Conventional dpcs cannot be easily site fabricated into a suitable shape for arch protection. The common practice of providing a horizontal dpc across the crown of the arch leaves the arch masonry and adjacent brickwork unprotected against water penetration.

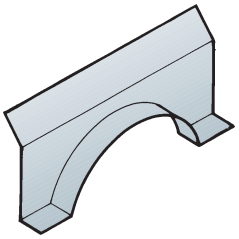


AR Arch Tray

Provides full dpc protection to arches constructed with temporary formwork.

Advantages

- Enables traditional formwork construction methods.
- Design does not require tying in to the inner leaf of masonry.
- Purpose-made to rise, radius and shape required.
- Manufactured from durable polypropylene.

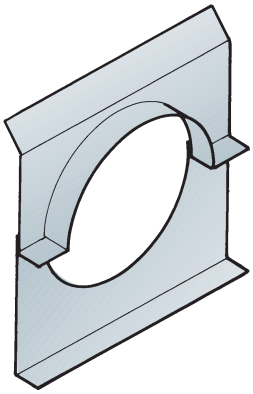


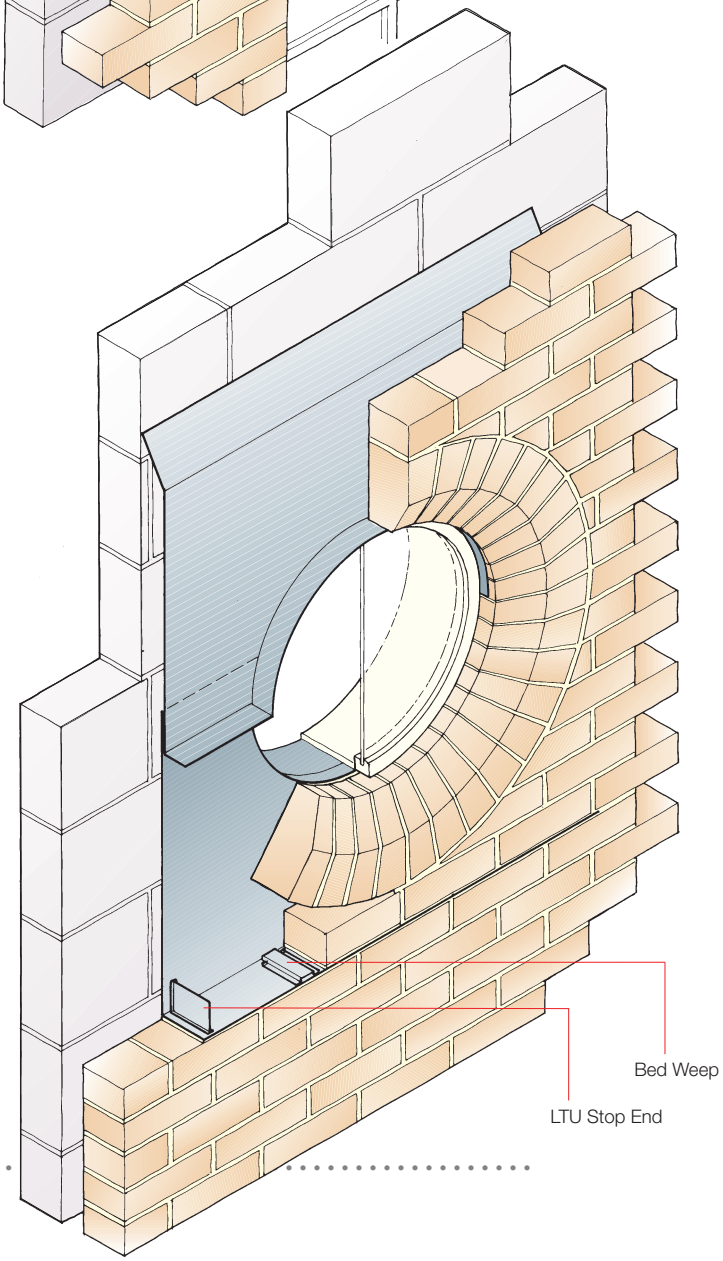
BE Bullseye Window Tray

Preformed 360° tray providing full dpc protection around a circular or bullseye window.

Advantages

- Purpose-made to window size.
- Positively drains to the outside.
- Two-piece design assists installation.
- Manufactured from durable polypropylene.





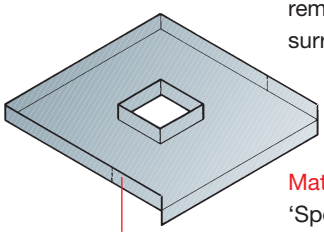
CT CHIMNEY TRAYS

CT metal chimney trays protect against water penetration at high or low level.

- Comply with Building Regulations and NHBC Standards, which require the use of metal trays in chimneys.
- Preformed components help to achieve a high standard of appearance.
- Eliminate the need for labour in forming units on site.
- One-piece welded designs for speed of installation.
- Maintain protection whilst accommodating normal site inaccuracies.

CTHL Chimney Tray, High Level

Required to prevent the entry of water at high level where a chimney rises through a pitched roof; suitable for new-build or remedial work. Minimises disturbance to surrounding construction in remedial work.

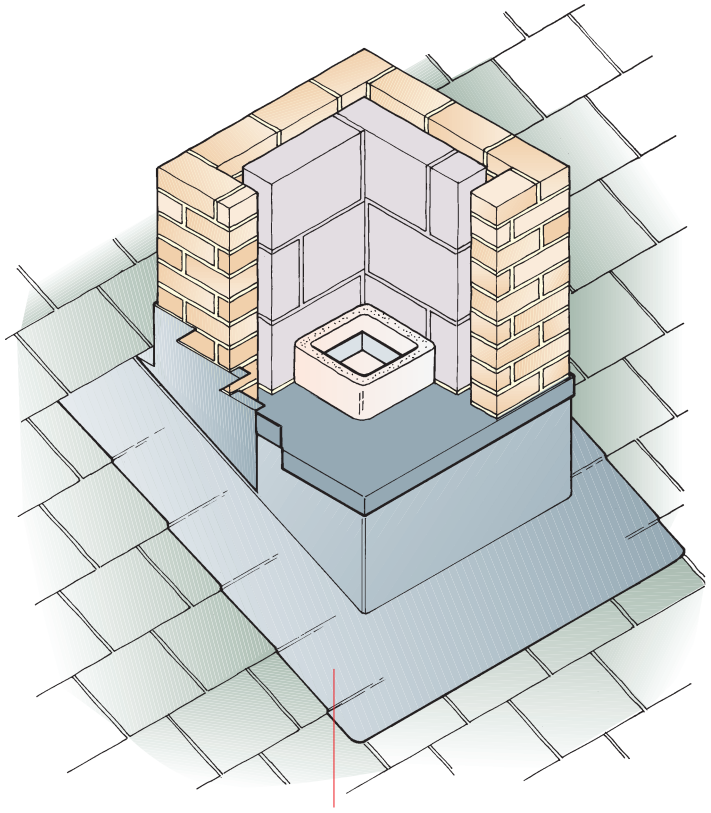


Upstand to be cut on site and folded down over flashing

Material: Lead sheet to BS EN 12588 'Specification for milled lead sheet for building purposes'. Code 4 as standard, code 5 to special order.

Standard sizes: 800 x 800mm, 900 x 900mm, 950 x 950mm.

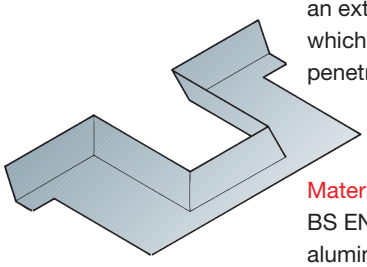
To suit either 195mm square or 195mm diameter circular flue.
Other sizes to special order.



Flashings by others

CTLL Chimney Tray, Low Level

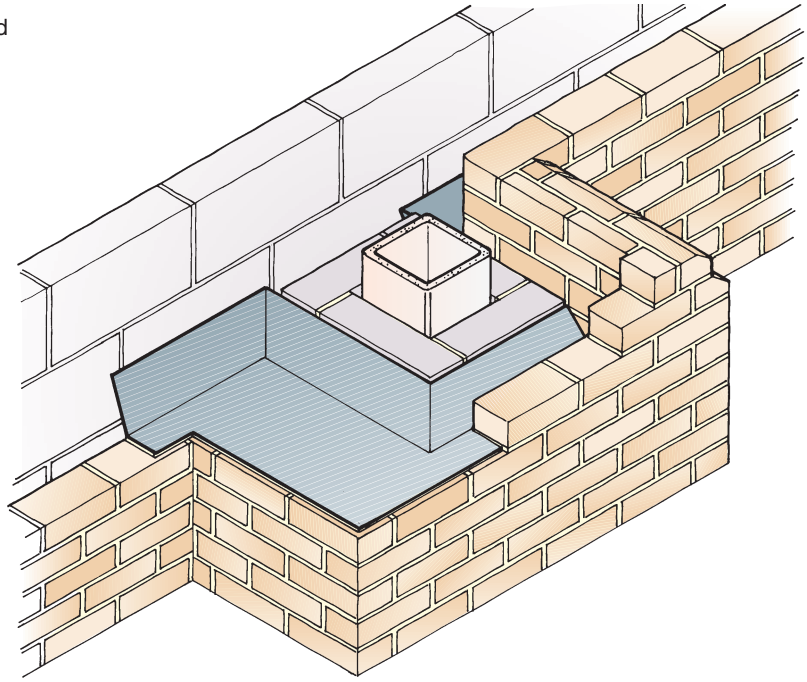
Required at low level where a cavity-walled chimney with brick shoulders is built on to an external wall; the tray prevents water which may enter the shoulders from penetrating to the inner leaf of the wall.



Material: 1mm aluminium alloy sheet to BS EN 485-1+A1 'Aluminium and aluminium alloys. Sheet strip and plate. Mechanical properties'. This has a higher melting point than lead, so is suitable for installation close to a heat source.

Standard size: to suit 1115 x 510mm chimney. Other sizes to special order.

Note: Lead or aluminium sheet built into brickwork or concrete as a damp proof course should be protected with a thick coat of bitumen paint before installation.



ASG ABUTMENT SECRET GUTTER

Use

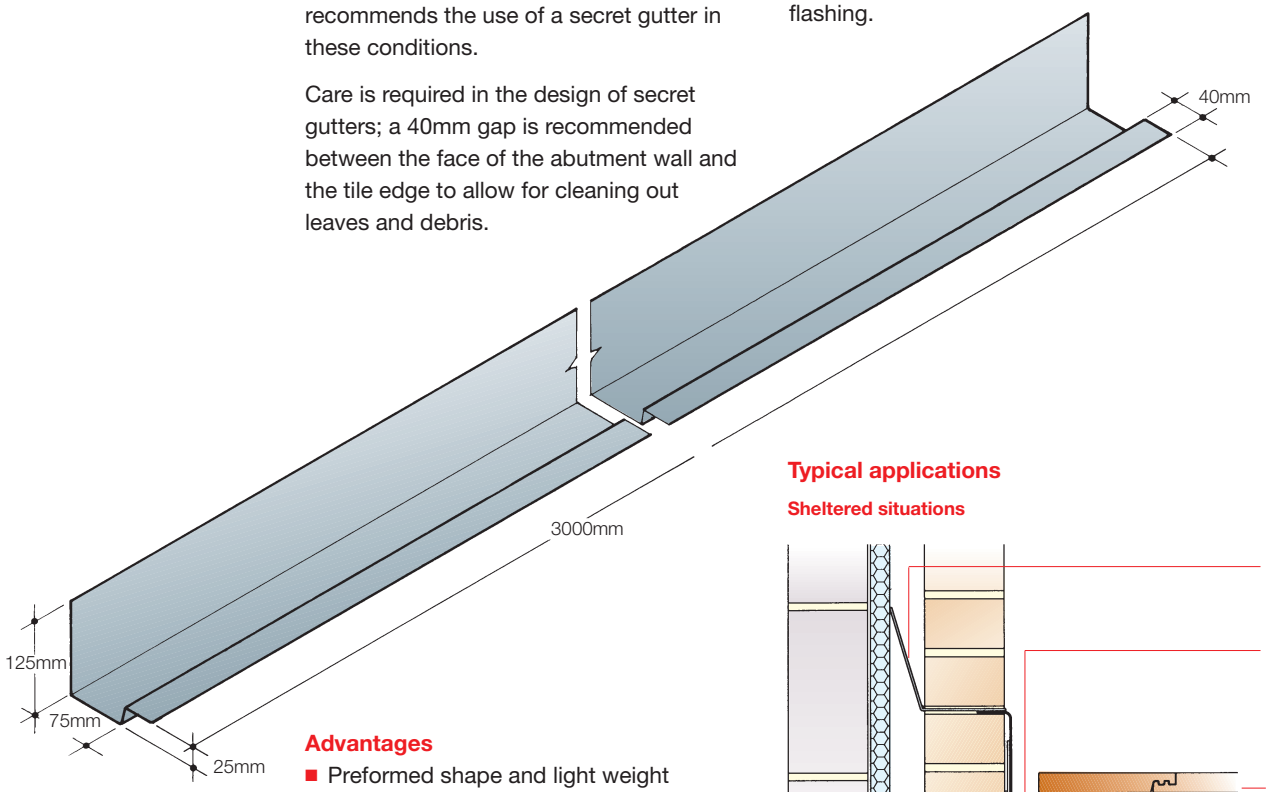
The ASG Abutment Secret Gutter is for use where the sloping edge of a flat interlocking tiled roof abuts a wall. With flat tiles, there is a risk of water penetration by capillary action between the lead or other oversoakers and the tiles, particularly on exposed sites or at low roof pitches. Because of this BS 8000: Part 6 recommends the use of a secret gutter in these conditions.

Care is required in the design of secret gutters; a 40mm gap is recommended between the face of the abutment wall and the tile edge to allow for cleaning out leaves and debris.

The ASG Abutment Secret Gutter should be used in conjunction with Glidevale Intra Weep Abutment Trays with factory-fitted flashings.

In sheltered situations use trays with short flashings.

In exposed situations, use trays with long flashings secured by clips to act as a cover flashing.



Advantages

- Preformed shape and light weight enables quick and easy installation.
- Reduces the risk of theft from site as the product is of no value to thieves.
- Positive 25mm upstand obviates the need for capillary weather bars which cause adjacent tiles to kick up.
- Complies with recommendations of BS 8000: Part 6.
- Designed in accordance with Lead Sheet Association dimensional requirements.
- Resistant to UV light degradation.
- Fire rating: designated AB to BS 476: Part 3.
- Pultruded GRP with additional surface gel coat.
- Comprehensive installation instructions provided.

Specification clause

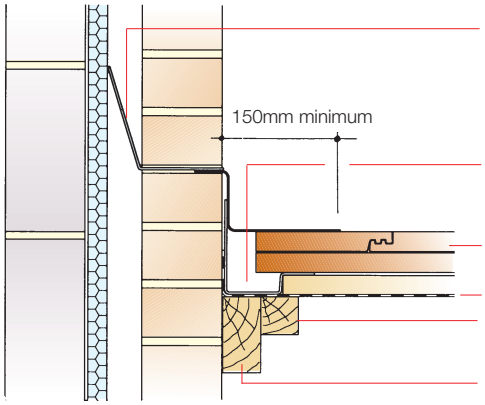
ASG Abutment Secret Gutter
Provide abutment secret gutters to comply with BS 8000: Part 6. Gutters to be preformed Glidevale ASG Abutment Secret Gutters with AB fire rating to BS 476: Part 3 . Install in accordance with manufacturer's instructions.

Supplied by Glidevale, 2 Brooklands Road, Sale, Cheshire M33 3SS, Tel: 0161 905 5700. Fax: 0161 905 2085. Email: info@glidevale.com.

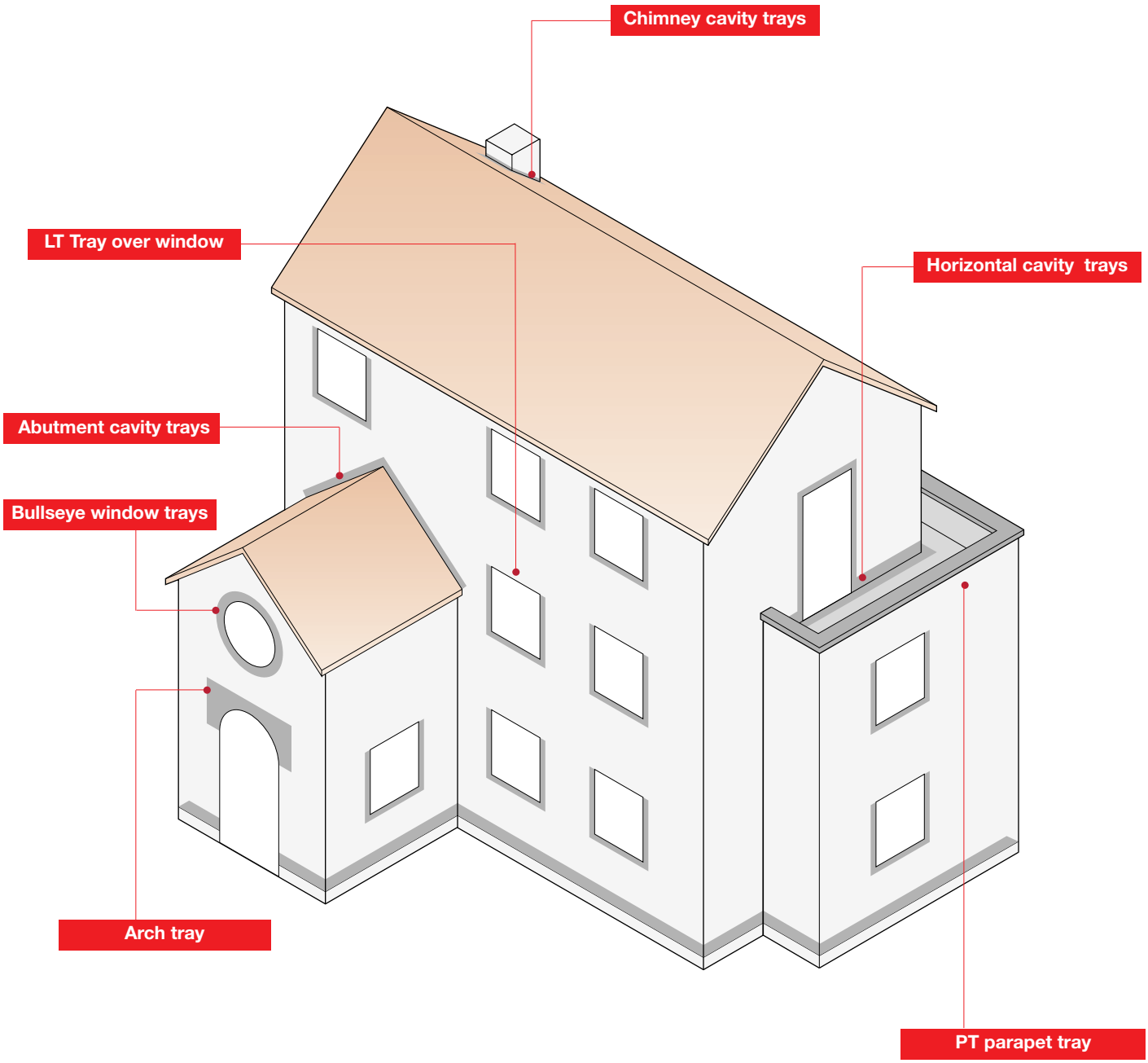
Typical applications

Sheltered situations

Exposed situations



THE GLIDEVALE CAVITY TRAY PRODUCT RANGE



REFERENCES

Building Regulations (England and Wales)

Protection against ground moisture and rain penetration are required by the Building Regulations Part C for England and Wales. The relevant requirements are:

'Resistance to moisture
C2 The floors, walls and roof of the building shall adequately protect the building and people who use the building from harmful effects caused by:
(a) ground moisture
(b) precipitation and wind-driven spray.'

Similar requirements apply in other parts of the UK and Ireland.

The Building Standards Technical Handbook 2017

Section 3.10 '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.'

Republic of Ireland

Part C Site preparation and resistance to moisture 2004
Document C4 'The floors, walls and roof of a building shall be so designed and constructed as to prevent the passage of moisture to the building or damage to the fabric of the building.'

Building Regulations (Northern Ireland) 2012

Technical Booklet C

NHBC

Chapters 6.1, 6.2 and 7.2

Environment / Operational Information

As part of our commitment to minimising our impact on the environment, and to continuous improvement in our methods of operation, Glidevale is accredited to ISO14001 Environmental Management, OHSAS 18001 Health and Safety Management and ISO 9001 Quality Management Systems.

Technical Support

Glidevale offer a full technical advisory and estimating service. Contact our Technical Services Department on 0161 905 5700 for further information or to request a complete schedule and quotation covering all products required.

Other Products

Glidevale market a range of other products including:

Ground floor gas and damp protection products.

G Range tile and slate ventilators.

In-line tile and slate ventilators.

Abutment ventilation.

Loft access hatches/ladder.

iPSV® whole-house ventilation system.

Stockist's stamp

GLIDEVALE
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Email: info@glidevale.com Web: www.glidevale.com

BPD
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ISO 9001 ISO 14001 OHSAS 18001

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