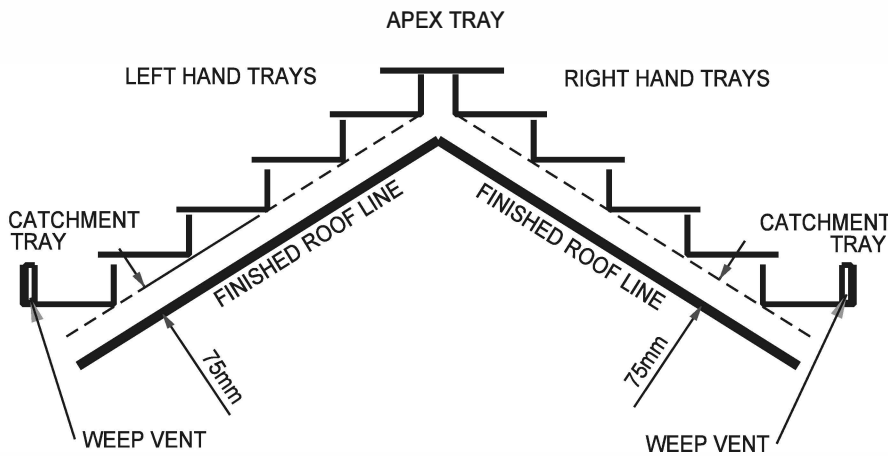


TITLE GENERAL FITTING INSTRUCTIONS FOR STEPPED CAVITY TRAYS

CODE

THE CORNER OF THE TRAY SHOULD BE 75mm OFF FINISHED ROOFLINE



A dummy truss should be positioned at roof abutment 75mm off the finished roof line as shown. One cavity tray should be placed on every course of the abutment. The corner of each cavity tray should be aligned with the dummy truss to achieve the correct spacing of trays and stepped flashing on completion.

NOTE

If a secret gutter is being used and the upstand is higher than 75mm above the finished roof line then the position of the trays will have to be adjusted accordingly.

DO NOT FIT TRAYS INTO THE NEAREST PERPEND

BRICKS WILL NEED TO BE CUT TO ACHIEVE CORRECT PITCH BUT WILL BE HIDDEN BY LEAD FLASHING ON COMPLETION.

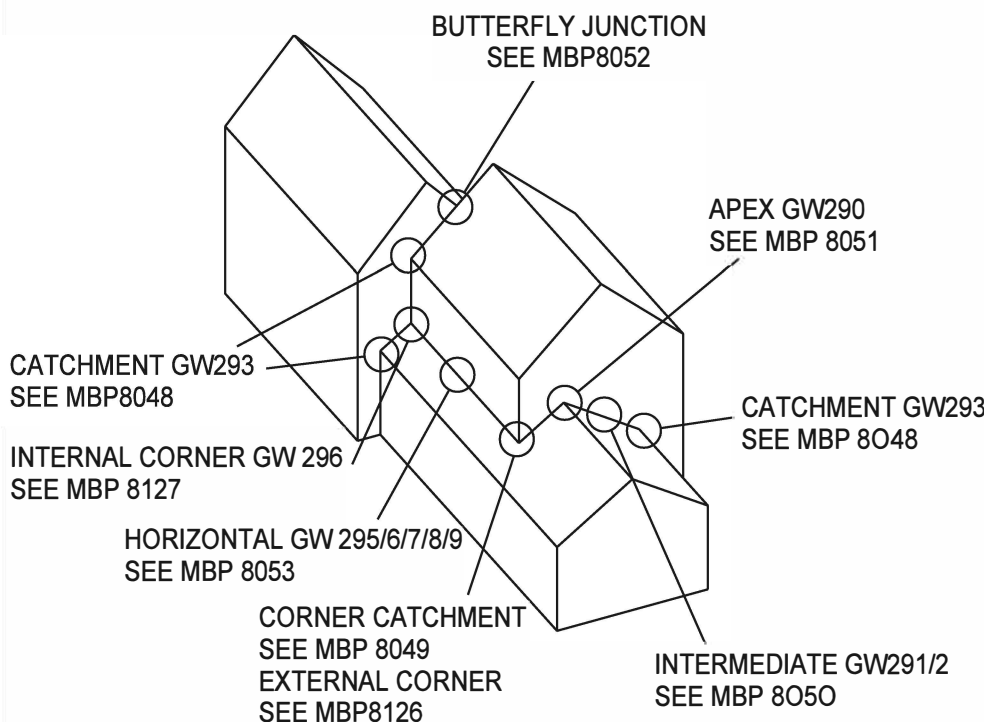
DO NOT DRY BED TRAYS

All cavity trays and masonry should be bedded on mortar. The area around the trays should be flush pointed.

KEEP TRAYS AND CAVITY CLEAR

During construction mortar should be prevented from falling into the trays and cavity. Any mortar that does fall into the trays should be removed before completion.

**FOR FURTHER INFORMATION
DETAILS SEE RELEVANT
DRAWING**



LEADED TRAYS

After fitting the trays and mortar is dry the lead should be dressed as shown. This should be easily done if the tray has been positioned correctly.

UNLEADED TRAYS

When mortar is dry and the wall is stable the mortar strips should be removed to leave a 25mm deep gap to fix lead flashing into using lead wedges as per normal practice. The lead should then be dressed down and pointed using a suitable flexible sealant.

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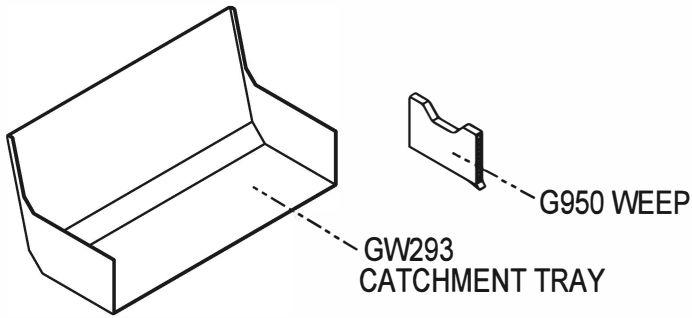
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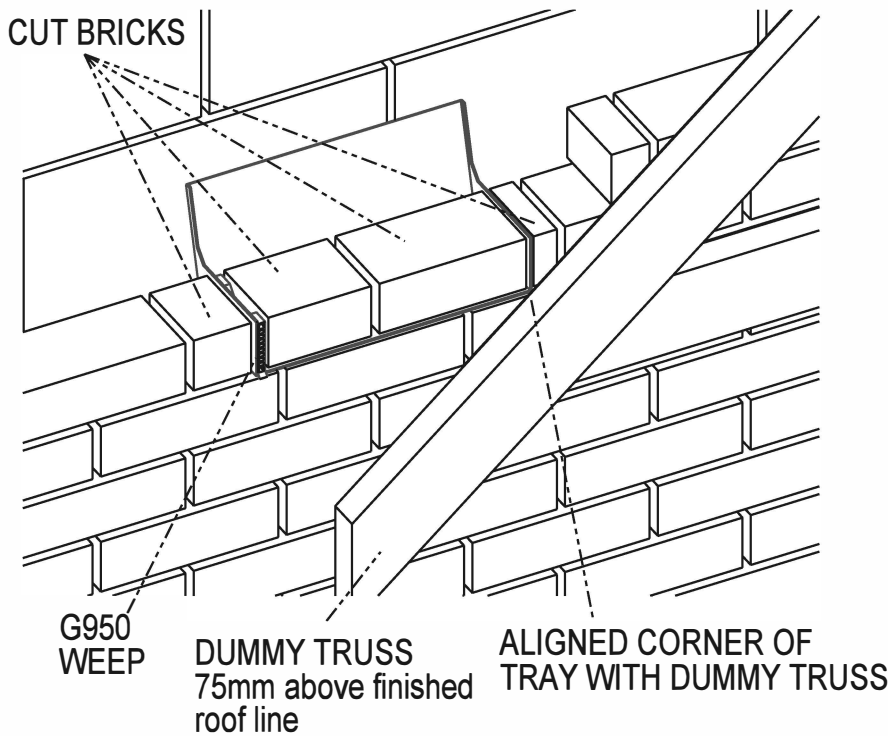
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TITLE CATCHMENT FITTING DETAILS

CODE



The GW293 Catchment Tray has a stop-end at both ends forming an enclosed tray. This collects any water from trays above and discharges it out through a G950 Weep Vent.



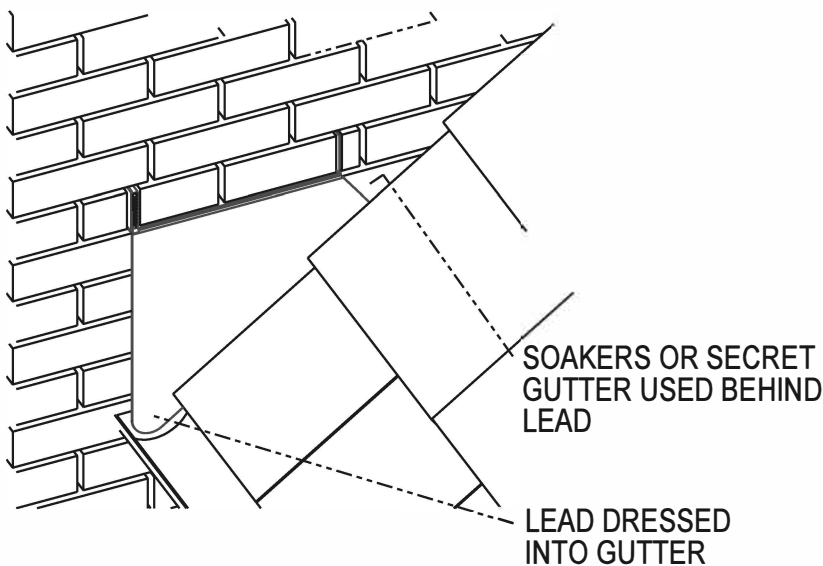
The Catchment Tray is located at the lowest point of the abutment and is generally the first tray to be fitted. This tray should be mortared into position with the corner 75mm off the finished roof line and if possible over the gutter. To achieve this it is normally necessary to cut bricks.

G950 Weep Vents should be fitted as shown. Care should be taken not to block the weep vent with mortar or debris.

**DO NOT FORGET TO FIT
A G950 WEEP VENT**

DO NOT DRY BED TRAYS

SHORT LEADED TRAY DETAIL SHOWN



After fitting the tray and mortar is dry lead should be fitted as shown, this should be easily done if the tray has been positioned correctly. If there is a gutter under the tray then the lead should be dressed into it as shown.

Note: Mortar is not shown for clarity

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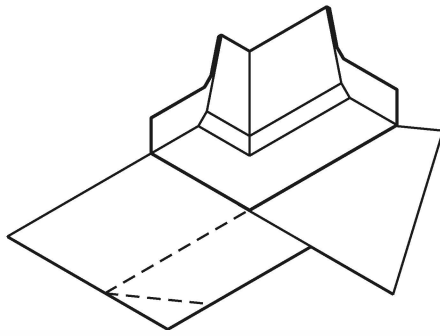
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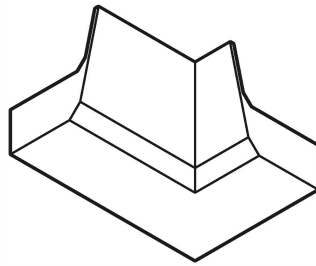
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TITLE CORNER CATCHMENT FITTING DETAIL	CODE
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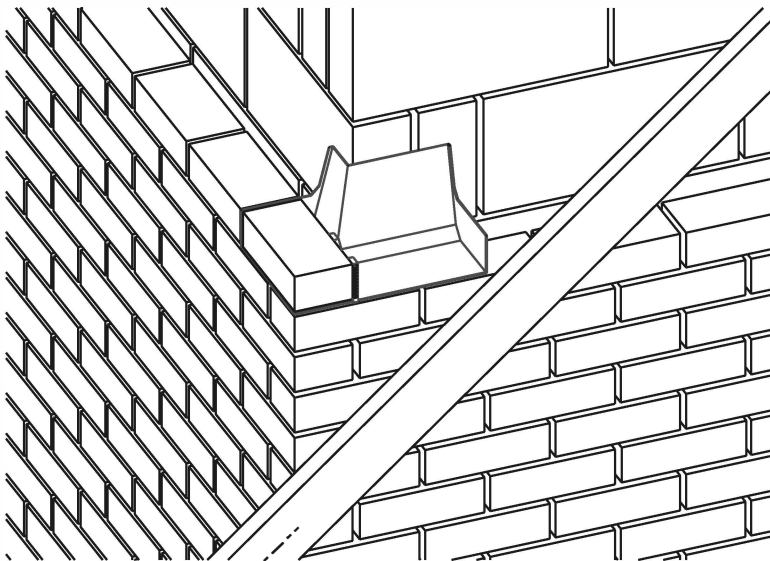


Left Hand GW293CCLH
shown with short lead attached



Right Hand GW293CCRH

The GW293CC Corner Catchment Tray is formed in a 'L' shape with a stop-end at both ends. Its function is to collect any water from trays above and discharge it through a G950 Weep Vent. It is used when a stepped roof abutment terminates at a corner.

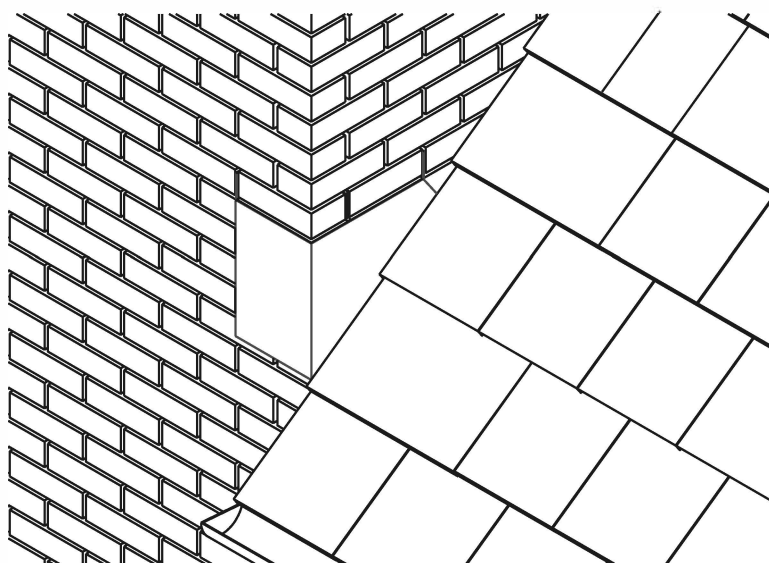


DUMMY TRUSS
75mm above finished
roof line

The Corner Catchment Tray should be positioned with the corner of the tray 75mm of the finished roof line (dummy truss Line) as shown. It will not always be possible to achieve exactly 75mm. In this situation a number of dry runs should be carried out to locate the corner of the tray as close as possible to the dummy truss line.

As with all trays it may be necessary to cut bricks to achieve correct positioning.

Note.
For low pitch applications see additional sheet*****



LEADED TRAYS

After fitting the trays and mortar is dry the lead should be dressed as shown.

UNLEADED TRAYS

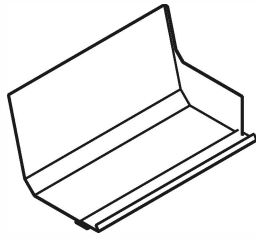
When mortar is dry and the wall is stable the blue foam strips should be raked out to leave a 25mm deep gap to fix lead flashing into using lead wedges as per normal practice. The lead should then be dressed down and pointed using a suitable flexible sealant.

Note:
For long lead applications the lead flashing should be welded see sheet*****

Note: Mortar is not shown for clarity

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TITLE INTERMEDIATE TRAYS FITTING DETAILS	CODE
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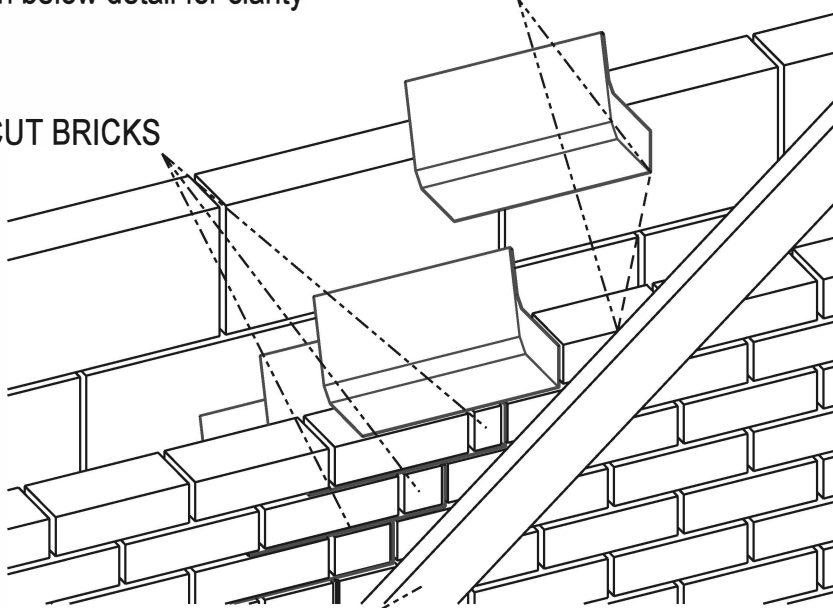
GW292 Intermediate tray shown with mortar strip

The GW292 Left Hand (shown) and GW291 Right Hand Intermediate Trays have a stop-end at one end of the tray. This tray collects any water from above and channels it down to the next tray.

Mortar strip not shown in below detail for clarity

ALIGNED CORNER OF TRAY WITH DUMMY TRUSS

CUT BRICKS



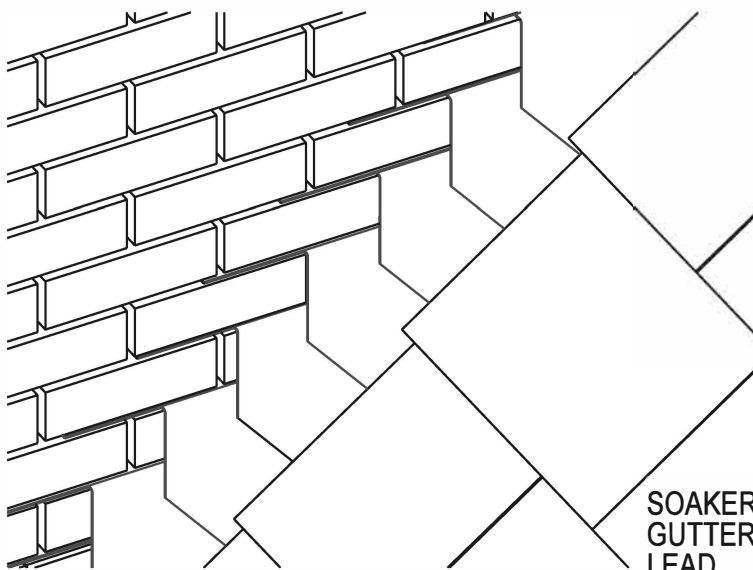
DUMMY TRUSS
75mm above finished roof line

Intermediate trays are positioned on every brick course above the Catchment Tray up to the apex or termination of the abutment. The corner of each tray should be positioned 75mm off the finished roofline using a dummy truss as a guide. To achieve the correct pitch it will be necessary to cut bricks but all cut brick joints will be covered by lead flashing on completion.

All cavity trays and masonry should be bedded on mortar. The area around the trays should be flush pointed.

DO NOT DRY BED TRAYS

SHORT LEADED TRAY DETAIL SHOWN



SOAKERS OR SECRET GUTTER USED BEHIND LEAD

Note: mortar is not shown for clarity

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INTERMEDIATE BLOCK / STONEMWORK TRAY FITTING DETAILS

Description:

Block / stone work trays are available in two alternative lengths of 814mm and 448mm long to suit different roof pitches and course heights. See product information sheet MBP 8123 for more detailed information.

Fitting Instructions:

The block / stonework intermediate trays are longer than the standard brickwork cavity tray range to accommodate the greater course heights.

These trays are fitted in the same way as standard trays but have an additional perp-end protector to form a barrier against wind driven rain.

Intermediate trays are positioned on every block / stone course above a catchment tray, whether a GW293 BS or GW293 BS CC corner catchment tray up to a GW295 Apex Tray or the termination of the abutment.

The corner of each tray should be positioned 75mm off the finished roof line using a dummy truss or chalk line as a guide. Bending the flexible perp-end protector into the intermediate course above the tray as shown.

To achieve the correct pitch it will be necessary to cut blocks or stone to enable the correct positioning of the vertical stop end of the tray. Cut block joints will be covered by lead flashing on completion.

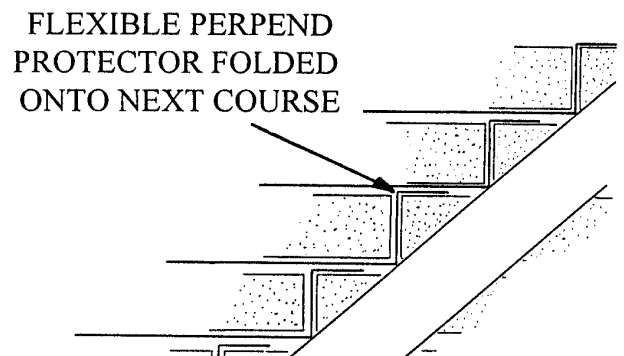
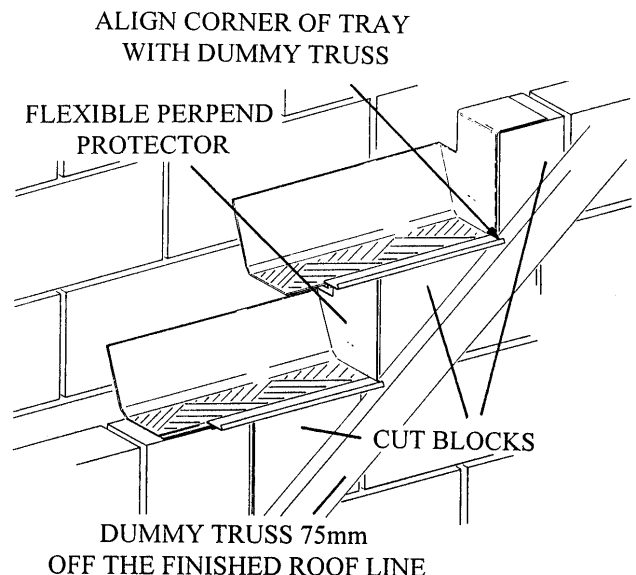
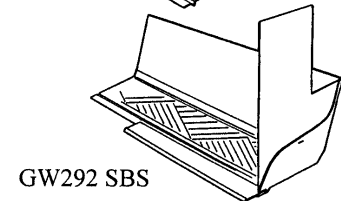
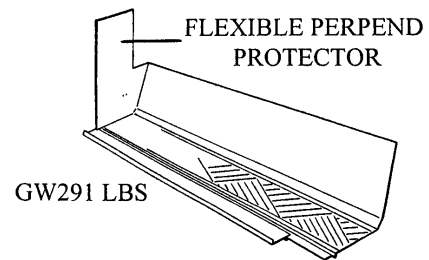
Unleaded Trays

When the mortar is dry and the wall is stable the mortar strips should be removed exposing a 25mm deep aperture into which the lead is inserted and secured with lead wedges as per normal practice. The lead should be dressed down and pointed using a flexible lead sealant.

Leaded Trays

After fitting the trays and when the mortar is dry the lead should be dressed down and pointed using flexible lead sealant.

Note: - For detail on general fitting instructions please refer to product information sheets MBP 8045, 46 and 47.



NOTE:- MORTAR IS NOT SHOWN FOR CLARITY. DO NOT DRY BED TRAYS OR PERPEND PROTECTORS.

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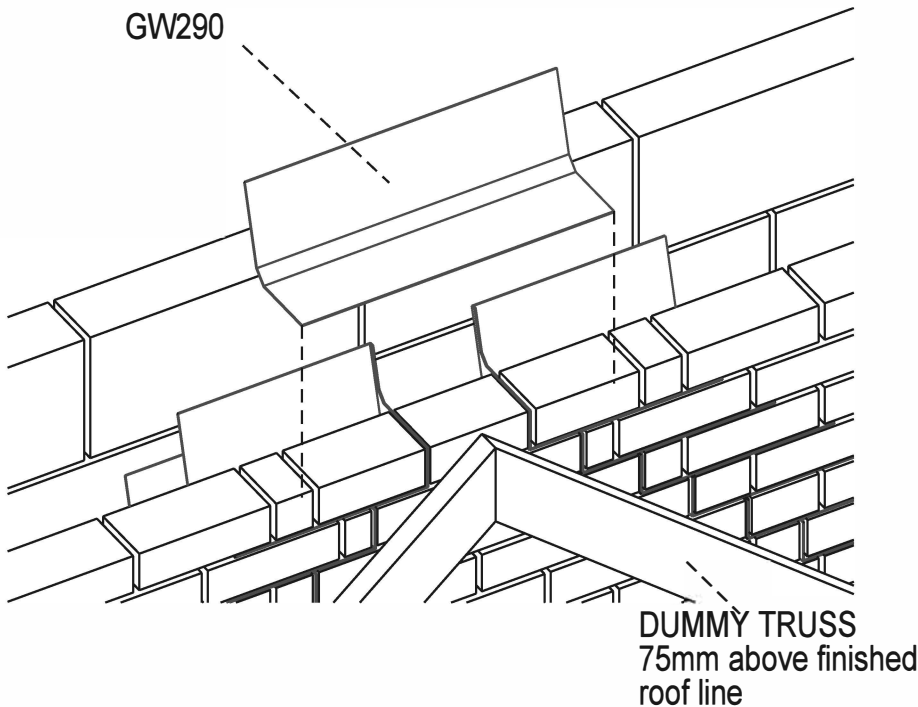
Issue

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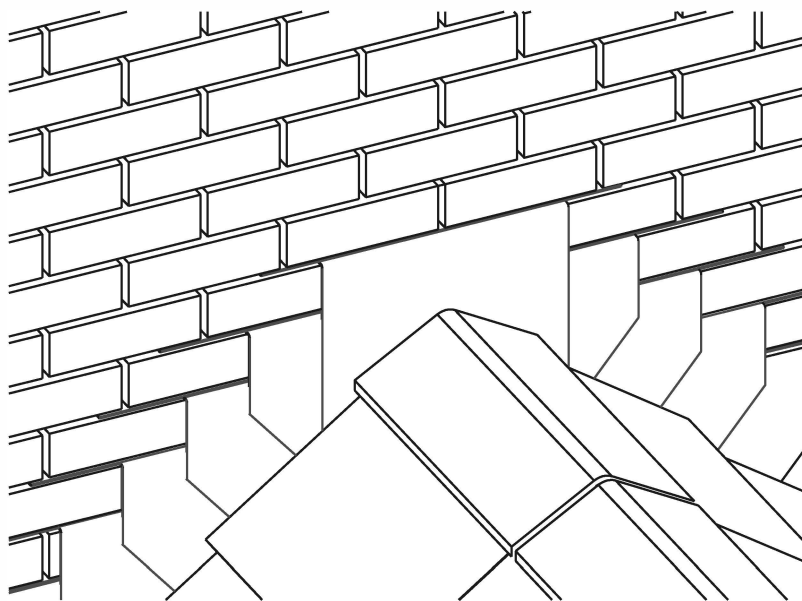
MBP 8068

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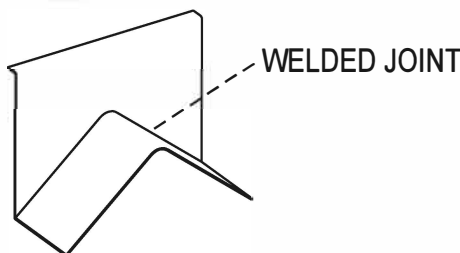
TITLE	APEX TRAY FITTING DETAILS	CODE
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SHORT LEADED TRAY DETAIL SHOWN



LEAD SADDLE DETAIL



Note: mortar is not shown for clarity

The GW290 Apex Tray protects the ridge or apex area, collecting any water from above and directing it to each side into the Intermediate Trays.

The Apex Tray is located at the highest point of the abutment above the ridge or apex and is generally the last tray to be fitted. This tray should be positioned centrally above the last two Intermediate Trays ensuring there is an overlap between the Apex Tray and both Intermediate trays.

All cavity trays and masonry should be bedded on mortar. The area around the trays should be flush pointed.

DO NOT DRY BED TRAYS

LEADED TRAYS

After fitting the trays and mortar is dry the lead should be dressed as shown. If long lead is being used to dress over roof tiles then an additional lead saddle should be welded to the apex lead as shown. For further information on lead work refer to the Lead Sheet Association, 'Lead sheet manual'.

UNLEADED TRAYS

When mortar is dry and the wall is stable the blue foam strips should be raked out to leave a 25mm deep gap to fix lead flashing into using lead wedges as per normal practice. The lead should then be dressed down and pointed using a suitable flexible sealant.

TITLE GENERAL FITTING DETAIL UNLEADED TRAYS

CODE

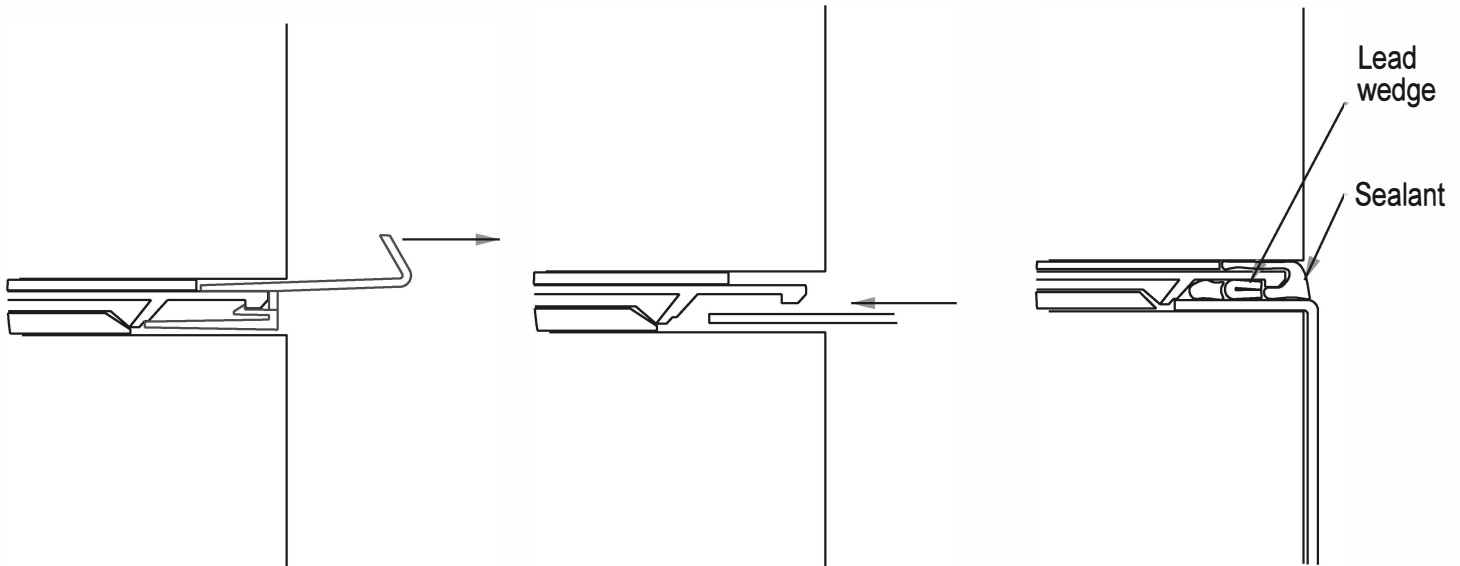
50 - 100MM

102.5MM

MORTAR STRIP

BED TRAY TOP AND BOTTOM WITH MORTAR

FITTING LEAD



① Wait until mortar is dry and wall is stable then pull out mortar strip to leave a 25mm slot

② Push lead into the gap ensuring it fits under the Cavity Tray. Secure lead flashing using lead wedges as per normal practice.

③ Dress lead down into position and point with a suitable flexible lead sealant.

For further information on the fitting and dressing of lead refer to the 'Lead Sheet Manual' available from the Lead Sheet Association.

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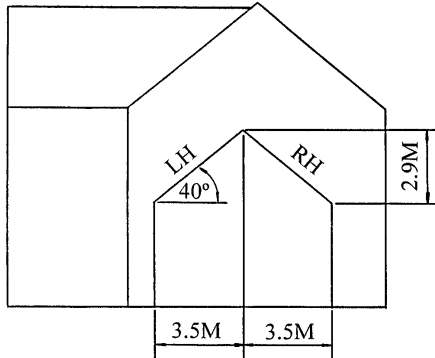
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B

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STEPPED CAVITY TRAYS CALCULATION 75mm COURSING

Cavity tray quantities can be calculated by using either the vertical or horizontal measurement of the abutment. If the vertical dimension is known, (Apex to gutter), simply divide the height by the brick course height being used as shown below.



Example:

$$2.9M \div 0.075M \text{ (brick course height)} = \underline{39}$$

That means you will need **39** x GW291 Intermediate trays for the RH side of the pitched roof abutment.

And **39** x GW292 Intermediate trays for the LH side of the abutment.

If the horizontal dimension and pitch are known, the number of trays can be calculated from the table below. Care should be taken to select the correct row of information.

Example: 3.5M span at a 40° pitch = **39** trays for one side of the pitched roof abutment.

SPAN METRES	PITCH	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
	1	4	4	5	6	6	7	8	9	10	11	12	13	14	15
1.5	6	7	8	9	10	11	12	14	15	16	18	19	21	23	23
2	8	9	11	12	13	15	17	18	20	22	24	26	29	31	31
2.5	10	12	13	15	17	19	21	23	25	27	30	33	36	39	39
3	12	14	16	18	20	23	25	27	30	33	36	39	43	47	47
3.5	14	16	19	22	24	26	29	32	36	39	43	46	50	55	55
4	16	19	21	25	27	30	33	37	41	44	49	53	57	63	63
4.5	18	21	24	28	31	34	38	41	46	50	55	59	65	71	71
5	20	23	27	31	34	38	42	46	51	55	61	66	72	79	79
5.5	23	26	30	34	37	42	46	51	56	61	67	73	79	87	87
6	25	28	32	37	41	46	50	55	61	67	73	79	86	95	95
6.5	27	31	35	40	44	50	55	60	66	72	79	86	94	103	103
7	29	33	38	44	48	53	59	65	72	78	86	93	101	111	111

Also required will be one GW293 Catchment Tray per side. If the roof abutment ends at a corner then a GW293 CC Corner Catchment tray would be required instead of a standard catchment tray. (See sheet MBP 8049 for more detailed information.)

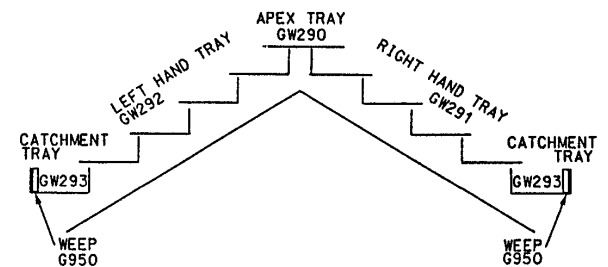
A G950 Weep Vent must be used in conjunction with all catchment trays to drain away the collected water safely.

Lastly a GW290 Apex Tray should be used if the abutment terminates at an apex. (See sheet MBP 8051 for more detailed information.)

All trays can be supplied unleaded or with lead attached.

Please specify the type of lead required when ordering leaded trays and the pitch required.

The lead flashing is available in either code 4 or code 5 (special order).



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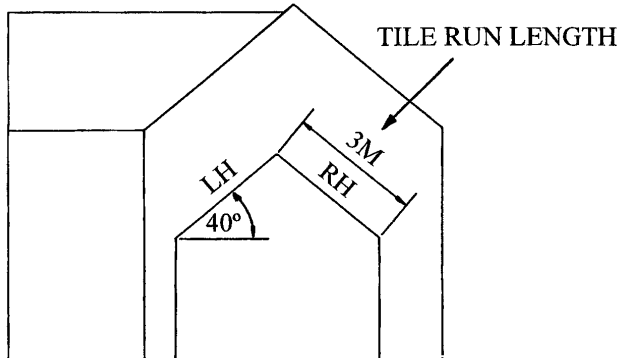
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MBP 8044

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STEPPED CAVITY TRAYS CALCULATION 75mm COURSING FROM TILE RUN LENGTH

Cavity tray quantities can be calculated by using the angle of the roof and the dimension tile run length of the abutment.



When the length of the tile run and pitch are known the number of trays can be calculated from the table below. Care should be taken to select the correct row of information.

Example:

3M tile run at a **40°** pitch = **25** Intermediate trays for one side of the pitched roof abutment.

	PITCH	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
TILE RUN LENGTH	1	3	4	4	5	5	6	6	7	7	8	8	8	9	9
	1.5	5	6	7	7	8	9	10	10	11	12	13	13	14	14
	2	7	8	9	10	11	12	13	14	15	16	17	18	19	19
	2.5	9	10	12	13	14	16	17	18	19	20	22	23	24	25
	3	11	13	14	16	17	19	20	22	23	25	26	27	28	30
	3.5	13	15	17	19	21	22	24	26	27	29	31	32	33	35
	4	15	17	19	22	24	26	28	30	31	33	35	37	38	40
	4.5	17	20	22	24	27	29	31	33	36	38	40	41	43	45
	5	19	22	25	27	30	32	35	37	40	42	44	46	48	50
	5.5	21	24	27	30	33	36	38	41	44	46	49	51	53	55
	6	23	26	30	33	36	39	42	45	48	50	53	56	58	60
	6.5	25	29	32	36	39	42	46	49	52	55	58	60	63	65
	7	27	31	35	38	42	46	49	53	56	59	62	65	68	70
	7.5	29	33	37	41	45	49	53	56	60	63	67	70	73	76
	8	31	35	40	44	48	52	56	60	64	68	71	74	78	81
	8.5	33	38	42	47	51	56	60	64	68	72	76	79	83	86
9	35	40	45	50	54	59	63	68	72	76	80	84	87	91	
9.5	37	42	47	53	57	62	67	72	76	80	85	89	92	96	
10	39	45	50	55	61	66	71	75	80	85	89	93	97	101	

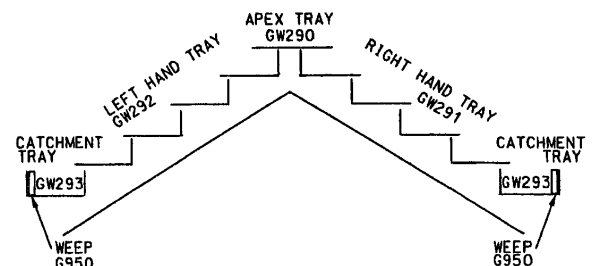
Also required will be one GW293 Catchment Tray per side. If the roof abutment ends at a corner then a GW293 CC Corner Catchment tray would be required instead of a standard catchment tray. (See sheet MBP 8049 for more detailed information.)

A G950 Weep Vent must be used in conjunction with all catchment trays to drain away the collected water safely. Lastly a GW290 Apex Tray should be used if the abutment terminates at an apex. (See sheet MBP 8051 for more detailed information.)

All trays can be supplied unleaded or with lead attached.

Please specify the type of lead required when ordering leaded trays and the pitch required.

The lead flashing is available in either code 4 or code 5 (special order).



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Date 24.06.19

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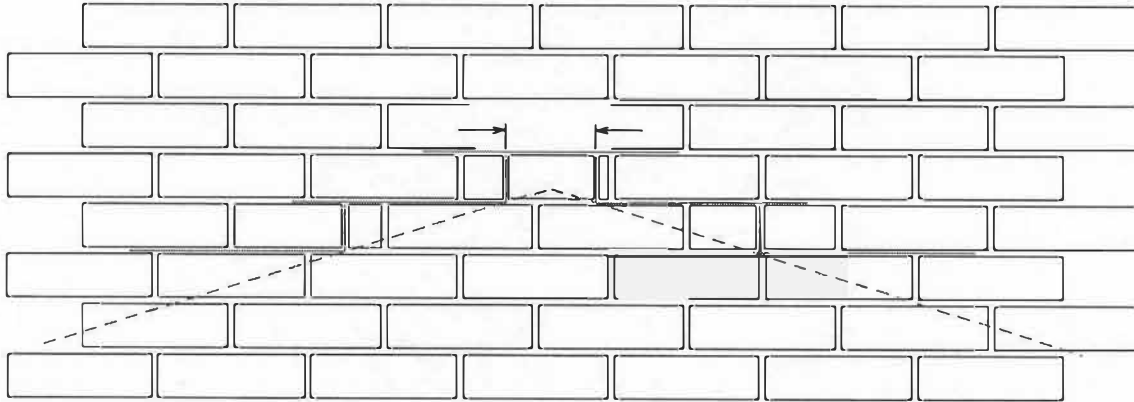
MBP 8149

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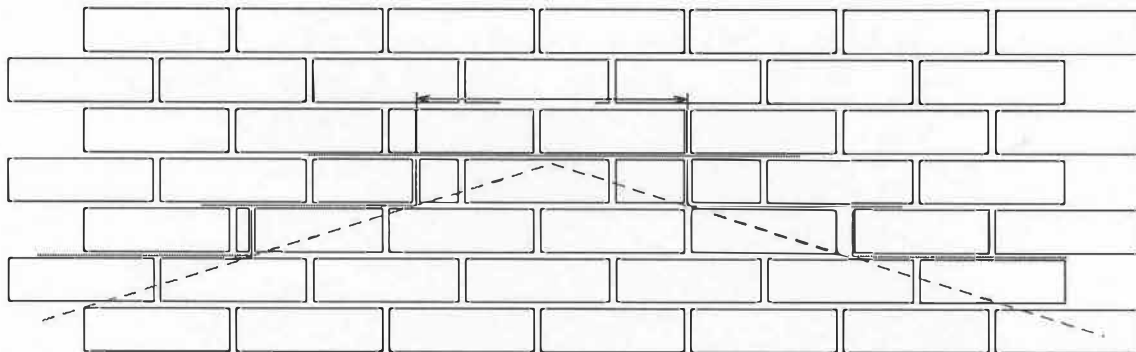
TITLE	REASON FOR LONG APEX TRAY	CODE
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At the time of ordering the position of the roof apex in relation to the brickwork coursing is unknown.

In some situations a short apex tray will work but in others it will not. Manthorpe supplies a long apex tray which will work in all brickwork situations



Only a short apex tray would be required in this example



It can be seen from this example that a long Apex tray would be required

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