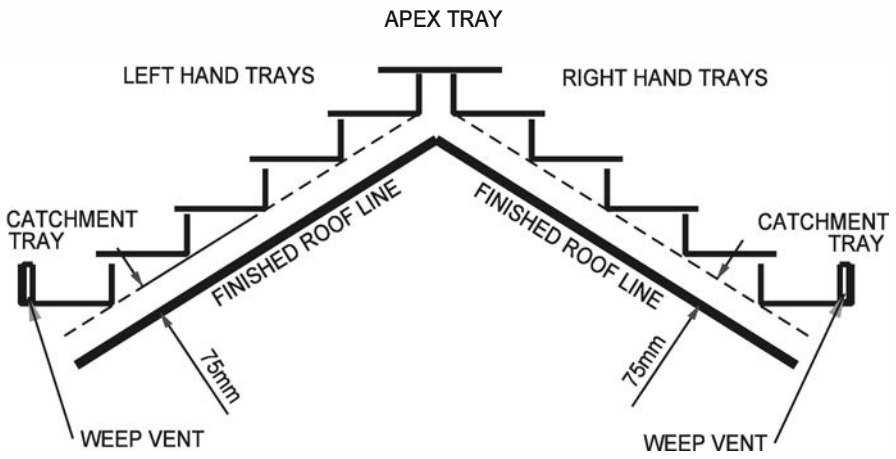
TITLE GENERAL FITTING INSTRUCTIONS FOR STEPPED CAVITY TRAYS | CODE

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.

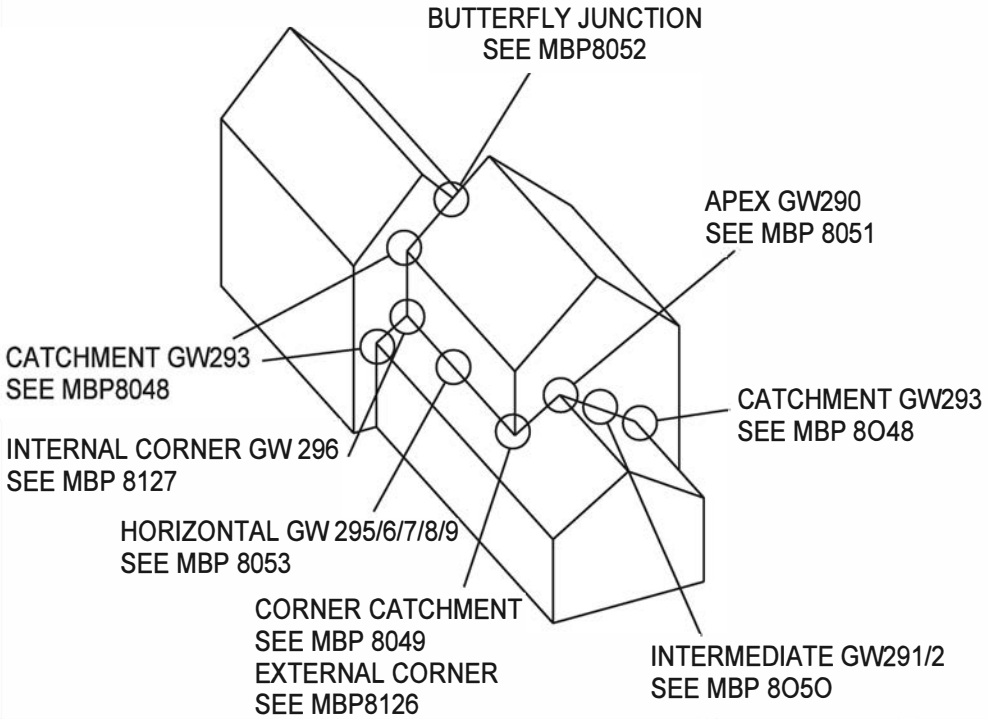
DO NOT DRY BED TRAYS

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 motar 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.

MANTHORPE BUILDING PRODUCTS LIMITED MANTHORPE HOUSE, BRITTAIN DRIVE, CODNOR GATE BUSINESS PARK, RIPLEY, DERBYSHIRE DE5 3ND.
TELE: 01773 303 000
FAX: 01773 303 300
Email: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

Drn MC | Date 21/06/19

DRG No 8045 | ISSUE C

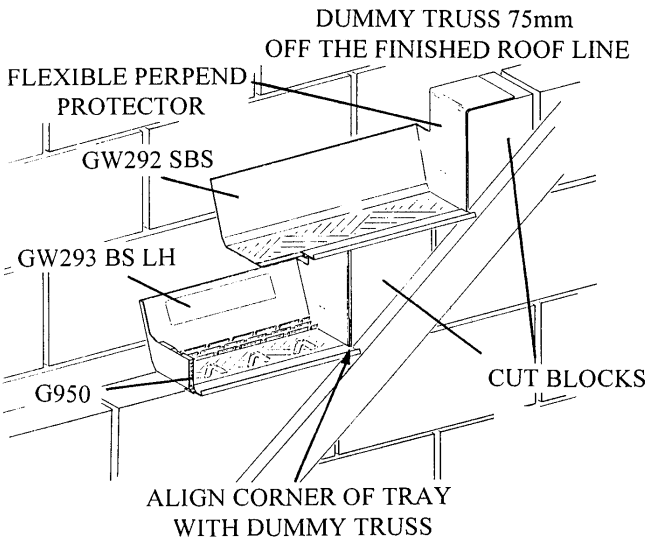
Manthorpe Building Products

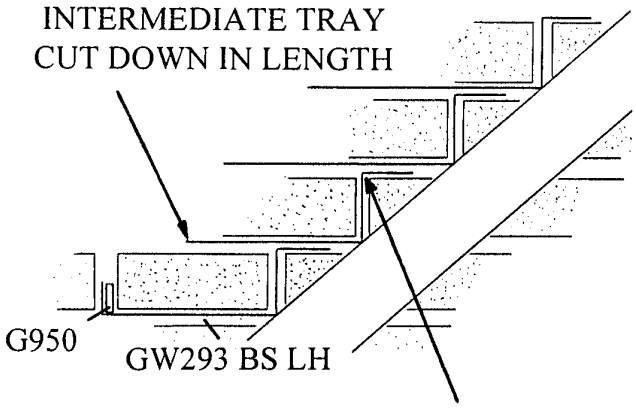
Product Information Sheet

BLOCK / STONEWORK CATCHMENT TRAY FITTING DETAILS

Description:

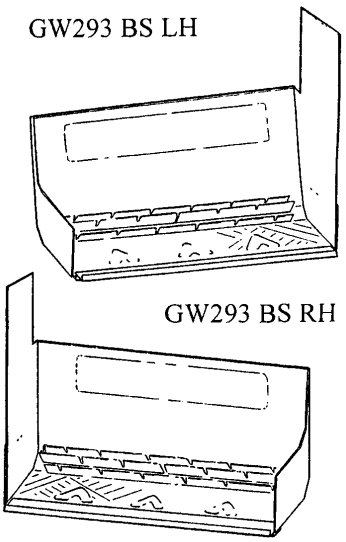
The GW293 BS Block / Stone Catchment Tray has a stop-end at both ends forming an enclosed tray. This collects water from the trays above and discharges it out through a G950 Weep Vent.





FLEXIBLE PERPEND
PROTECTOR FOLDED
ONTO NEXT COURSE

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



Fitting Instructions:

The Catchment 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 (dummy truss line) and if possible positioned over the gutter, bending the flexible perp end protector into the immediate course above the tray.

The tray at the bottom of the run which discharges into the catchment tray may require cutting down in length to line up over the centre of the catchment tray as shown. As with all trays it may be necessary to cut blocks / stones to achieve correct positioning of the vertical stop-ends of the tray.

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 details on general fitting instructions please refer to product information sheets MBP 8045, 46 and 47.

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A	Date 25.06.19	DRG No	Issue
The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.		**MBP 8155**	B

Manthorpe Building Products

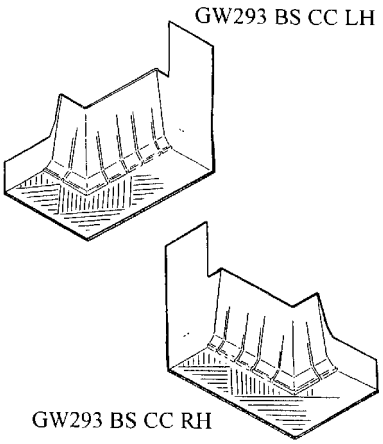
Product Information Sheet

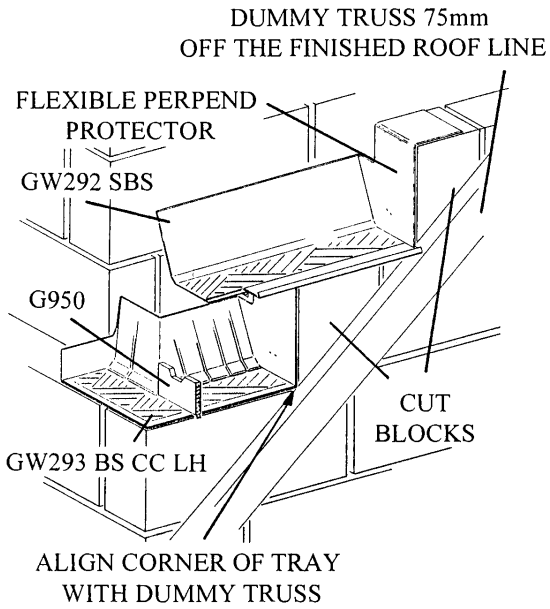
BLOCK / STONEWORK CORNER CATCHMENT TRAY FITTING DETAILS

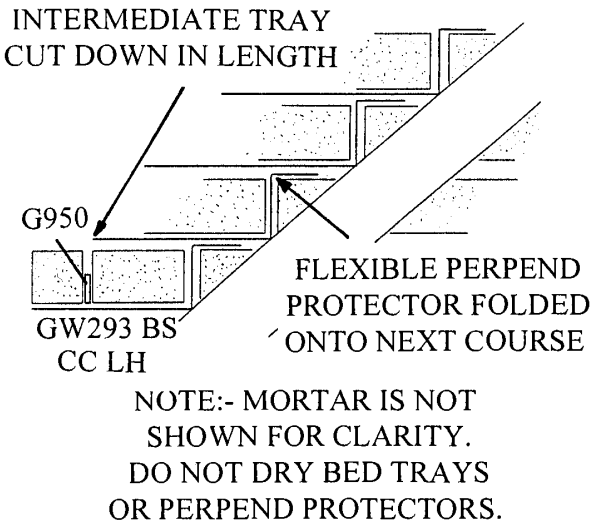
Description:

The GW293 BS CC Block / Stone Corner Catchment Tray are formed in an “L” shape with a stop-end at both ends and are used when an abutment terminates at a corner.

Its function is to collect any water from the trays above and discharges it out through a G950 Weep Vent.







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

Fitting Instructions:

The Corner Catchment Tray should be positioned with the corner of the tray 75mm off the finished roof line (dummy truss line), bending the flexible perpend protector into the intermediate course above the tray.

The tray at the bottom of the run which discharges into the corner catchment tray may require trimming down in length to line up over the centre of the catchment tray 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 blocks / stones to achieve the correct positioning of the vertical stop-ends of the tray.

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, trimmed as necessary and pointed using flexible lead sealant.

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

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 25.06.19

DRG No: MBP 8156

Issue: B

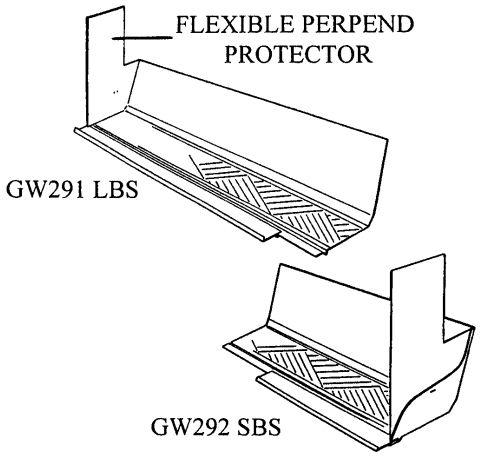
Manthorpe Building Products

Product Information Sheet

INTERMEDIATE BLOCK / STONEWORK 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:

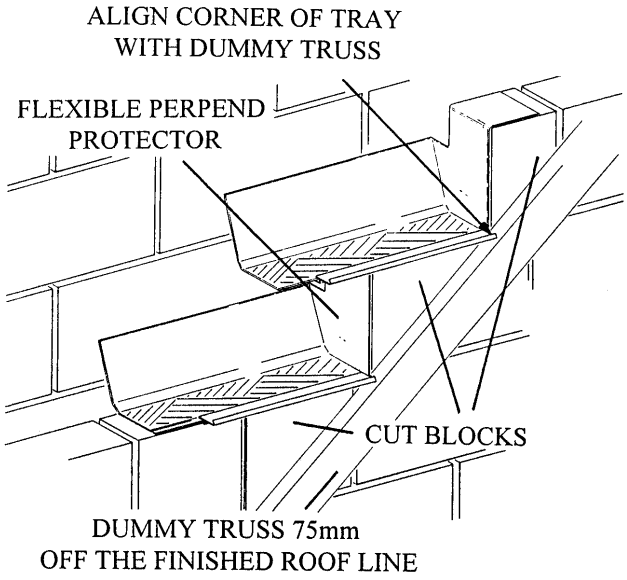
The block / stonework intermediate trays are longer than the standard brickwork cavity tray range to accommodate the greater course heights.

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.

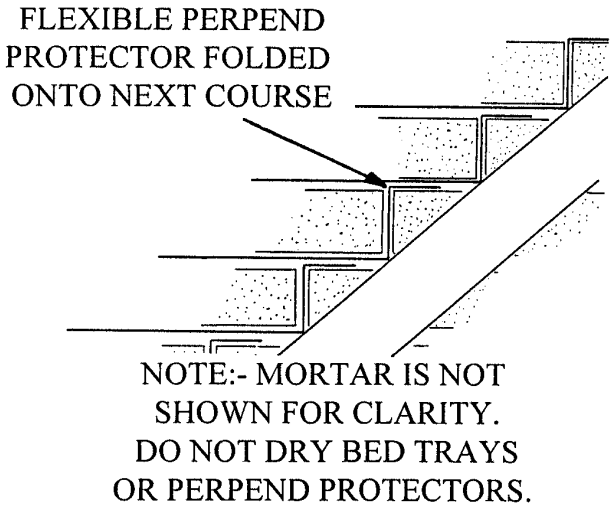


Unleaded Trays

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.

MANTHORPE BUILDING PRODUCTS LTD MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A	Date 21.06.19	DRG No	Issue
The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.		**MBP 8068**	B

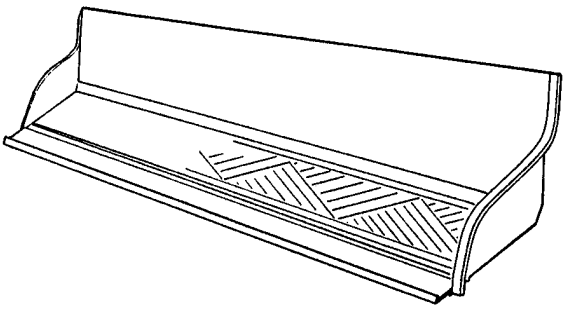
Manthorpe Building Products

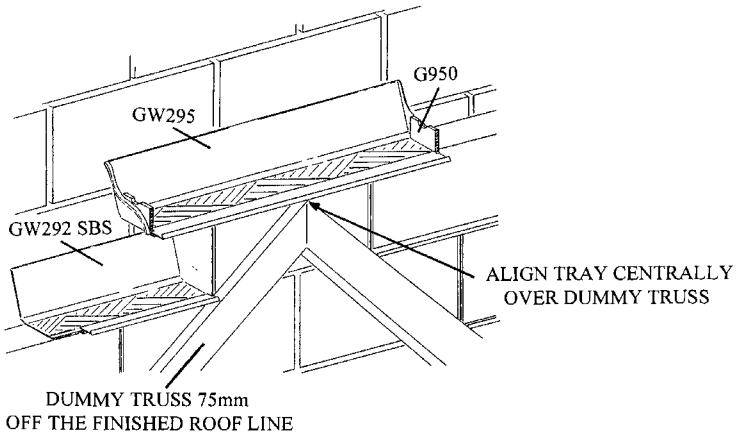
Product Information Sheet

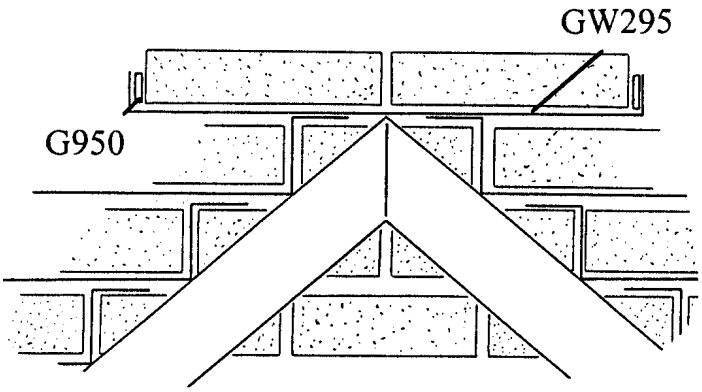
APEX BLOCK / STONEWORK TRAY FITTING DETAIL

Description:

The block / stone Apex Tray protects the ridge or apex area.







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

Fitting Instructions:

The block / stone 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 that there is an overlap between the Apex Tray and both Intermediate Trays. If there is not, simply hook two Apex Trays together to provide greater coverage in low pitch applications.

Two G950 Weep Vents should be used in conjunction with each Apex Tray to drain away the collected water as shown.

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, trimmed as necessary and pointed using flexible lead sealant.

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

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

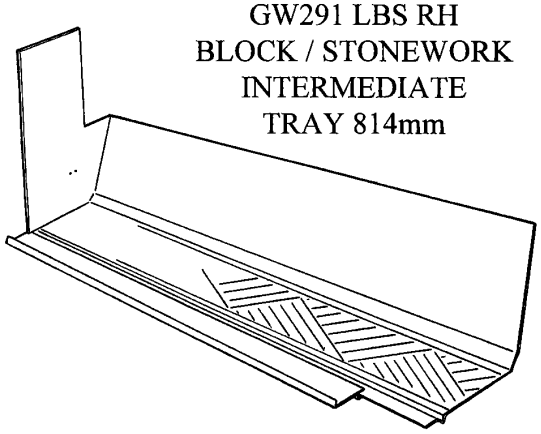
DRN M.A	Date 25.06.19	DRG No	Issue
The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.		**MBP 8157**	B

Manthorpe Building Products

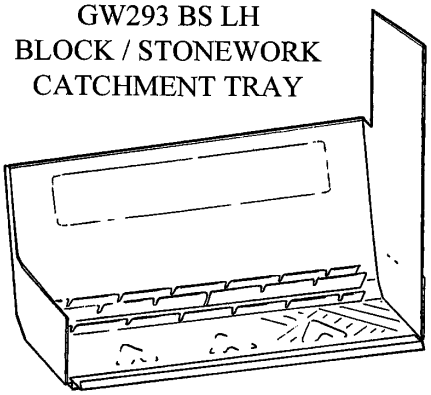
Product Information Sheet

BLOCK / STONEWORK TRAYS AND EFFECTIVE PITCHES

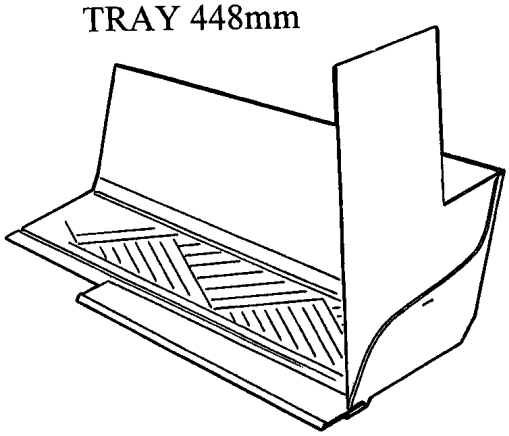
GW291 LBS RH
BLOCK / STONEWORK
INTERMEDIATE
TRAY 814mm



GW293 BS LH
BLOCK / STONEWORK
CATCHMENT TRAY



GW292 SBS LH
BLOCK / STONEWORK
INTERMEDIATE
TRAY 448mm



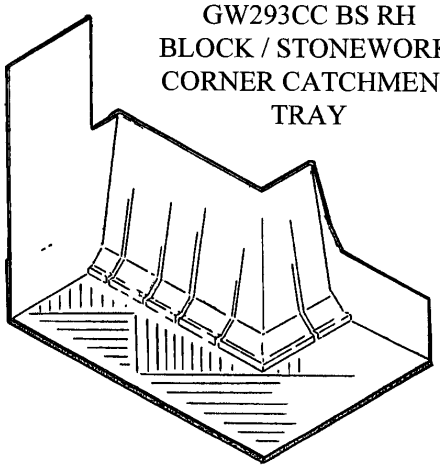
150 COURSING

CODE	APPROXIMATE LENGTH OF TRAY	PITCH RANGE
GW291 LBS	814mm	12 TO 24
GW292 LBS	814mm	12 TO 24
GW291 SBS	448mm	25 TO 50
GW292 SBS	448mm	25 TO 50
GW293 BS	330mm	ALL PITCHES
GW293CC BS	330mm x 219mm	ALL PITCHES

225 COURSING

CODE	APPROXIMATE LENGTH OF TRAY	PITCH RANGE
GW291 LBS	814mm	17.5 TO 34
GW292 LBS	814mm	17.5 TO 34
GW291 SBS	448mm	35 TO 50
GW292 SBS	448mm	35 TO 50
GW293 BS	330mm	ALL PITCHES
GW293CC BS	330mm x 219mm	ALL PITCHES

GW293CC BS RH
BLOCK / STONEWORK
CORNER CATCHMENT
TRAY



MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.L.W.O | Date 24.06.19

The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.

DRG No **MBP 8123**

Issue B

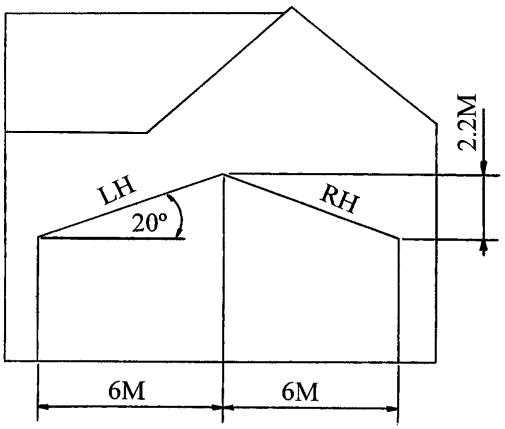
Manthorpe Building Products

Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 150mm COURSING

Cavity tray quantities can be calculated by using either the vertical or horizontal measurement of the abutment. Stone / Blockwork Intermediate trays are available in two alternative lengths 814mm long GW291 LBS / GW292 LBS for roof pitches 12 to 24 degrees (Example 1) and GW291 SBS / GW292 SBS 448mm long for roof pitches 25 to 50 degrees (Example 2).

EXAMPLE 1



If the vertical dimension is known (Apex to gutter) simply divide the height by the stonework course height being used as shown.

Example:

2.2M ÷ 0.150M (Stonework coursing) **= 15**

That means you will need **15** GW291 LBS Intermediate trays for the RH side of the pitched roof abutment at a 20 degree pitch.

And **15** x GW292 LBS 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 although care should be taken to select the correct row of information.

Example:

6M span at a **20°** pitch = **15** trays for one side of the pitched roof abutment.

		GW291 LBS / GW292 LBS 17.5° TO 24°			
	PITCH	17.5	20	22.5	24
SPAN METRES	1	2	2	3	3
	1.5	3	4	4	4
	2	4	5	6	6
	2.5	5	6	7	7
	3	6	7	8	9
	3.5	7	8	10	10
	4	8	10	11	12
	4.5	9	11	12	13
	5	11	12	14	15
	5.5	12	13	15	16
	6	13	15	17	18
	6.5	14	16	18	19
	7	15	17	19	21

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpe.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 24.06.19

The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.

DRG No **MBP 8137**

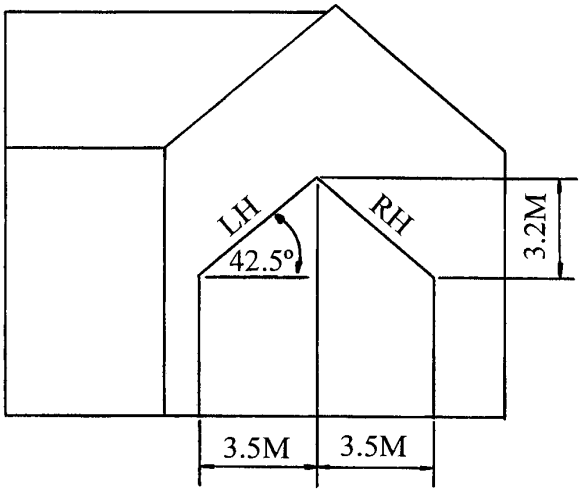
Issue B

Manthorpe Building Products

Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 150mm COURSING

Again if the vertical dimension is known (Apex to gutter) simply divide the height by the stonework course height being used as shown.



Example:

3.2M ÷ 0.150M (Stonework coursing) **= 21**

That means you will need **21** x GW291 SBS Intermediate trays for the RH side of the pitched roof abutment at a 42.5 degree pitch.

And **21** x GW292 SBS 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 although care should be taken again to select the correct row of information.

Example:

3.5M span at a **42.5**° pitch = **21** trays for one side of the pitched roof abutment.

		GW291 SBS / GW292 SBS 25° TO 50°										
	PITCH	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
SPAN METRES	1	3	3	4	4	5	5	6	6	7	7	8
	1.5	5	5	6	6	7	8	8	9	10	11	12
	2	6	7	8	8	9	10	11	12	13	15	16
	2.5	8	9	10	11	12	13	14	15	17	18	20
	3	9	10	12	13	14	15	17	18	20	22	24
	3.5	11	12	13	15	16	18	20	21	23	25	28
	4	12	14	15	17	19	20	22	24	27	29	32
	4.5	14	16	17	19	21	23	25	27	30	33	36
	5	16	17	19	21	23	26	28	31	33	36	40
	5.5	17	19	21	23	26	28	31	34	37	40	44
	6	19	21	23	25	28	31	34	37	40	44	48
	6.5	20	23	25	28	30	33	36	40	43	47	52
	7	22	24	27	30	33	36	39	43	47	51	56

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)

In both examples one GW293 BS Catchment tray per side of the abutment will also be required. If the roof abutment ends at a corner then a GW293 CC BS Corner Catchments tray would be required instead of a standard catchment tray.

A G950 Weep Vent must be used in conjunction with all catchment trays to drain away the collected water safely. Lastly a GW295 Horizontal / Apex tray should be used if the abutment terminates at an apex but in certain low pitch situations two GW295's may be required and hooked together.

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 24.06.19

DRG No: MBP 8137

Issue: B

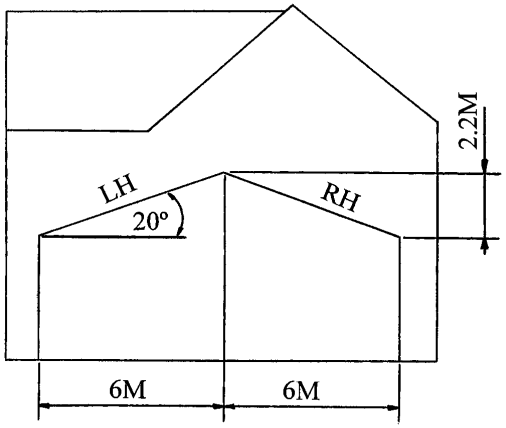
Manthorpe Building Products

Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 225mm COURSING

Cavity tray quantities can be calculated by using either the vertical or horizontal measurement of the abutment. Stone / Blockwork Intermediate trays are available in two alternative lengths 814mm long GW291 LBS / GW292 LBS for roof pitches 12 to 24 degrees (Example 1) and GW291 SBS / GW292 SBS 448mm long for roof pitches 25 to 50 degrees (Example 2).

EXAMPLE 1



If the vertical dimension is known (Apex to gutter) simply divide the height by the blockwork course height being used as shown below.

Example:

2.2M ÷ 0.225M (Blockwork coursing) **=10**

That means that you would need **10** x GW291 LBS Intermediate trays for the RH side of the pitched roof abutment at a 20º pitch.

And **10** x GW292 LBS 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 although care should be taken to select the correct row of information.

Example:

6M span at a **20º** pitch = **10** trays for one side of the pitched roof abutment.

		GW291 LBS / GW292 LBS 17.5° TO 34°							
	PITCH	17.5	20	22.5	25	27.5	30	32.5	34
SPAN METRES	1	1	2	2	2	2	3	3	3
	1.5	2	2	3	3	3	4	4	4
	2	3	3	4	4	5	5	6	6
	2.5	4	4	5	5	6	6	7	7
	3	4	5	6	6	7	8	8	9
	3.5	5	6	6	7	8	9	10	10
	4	6	6	7	8	9	10	11	12
	4.5	6	7	8	9	10	12	13	13
	5	7	8	9	10	12	13	14	15
	5.5	8	9	10	11	13	14	16	16
	6	8	10	11	12	14	15	17	18
	6.5	9	11	12	13	15	17	18	19
	7	10	11	13	15	16	18	20	21

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 24.06.19

The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.

DRG No **MBP 8138**

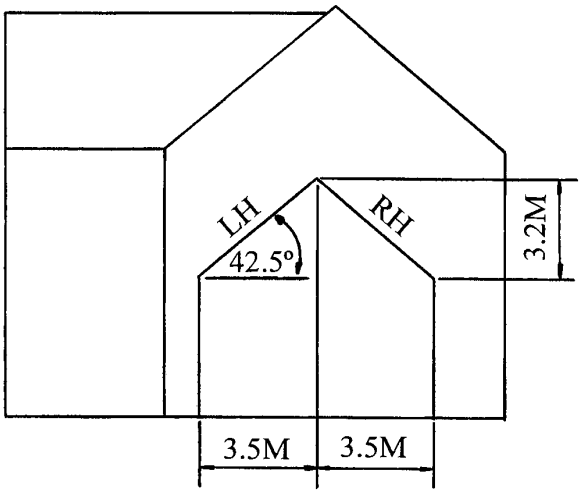
Issue B

Manthorpe Building Products

Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 225mm COURSING

Again if the vertical dimension is known (Apex to gutter) simply divide the height by the stonework course height being used as shown below.



Example:

3.2M ÷ 0.225M (Blockwork coursing) **= 14**

That means you would need **14** x GW291 SBS Intermediate trays for the RH side of the pitched roof abutment at a 42.5 degree pitch.

And **14** x GW292 SBS 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 although care should be taken again to select the correct row of information.

Example:

3.5M span at a **42.5°** pitch = **14** trays for one side of the pitched roof abutment.

		GW291 SBS / GW291 SBS 35° TO 50°						
	PITCH	35	37.5	40	42.5	45	47.5	50
SPAN METRES	1	3	3	4	4	4	5	5
	1.5	5	5	6	6	7	7	8
	2	6	7	7	8	9	10	11
	2.5	8	9	9	10	11	12	13
	3	9	10	11	12	13	15	16
	3.5	11	12	13	14	16	17	19
	4	12	14	15	16	18	19	21
	4.5	14	15	17	18	20	22	24
	5	16	17	19	20	22	24	26
	5.5	17	19	21	22	24	27	29
	6	19	20	22	24	27	29	32
	6.5	20	22	24	26	29	32	34
	7	22	24	26	29	31	34	37

In both examples one GW293 BS Catchment tray per side of the abutment will also be required. If the roof abutment ends at a corner then a GW293 CC BS Corner Catchment tray would be required instead of a standard catchment tray.

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

Lastly a GW295 Horizontal / Apex tray should be used if the abutment terminates at an apex but in certain low pitch situations two GW295's may be required and hooked together.

All trays can be supplied unleaded or with lead attached.

Note: - 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).

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 24.06.19

The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.

DRG No **MBP 8138**

Issue B

Manthorpe Building Products

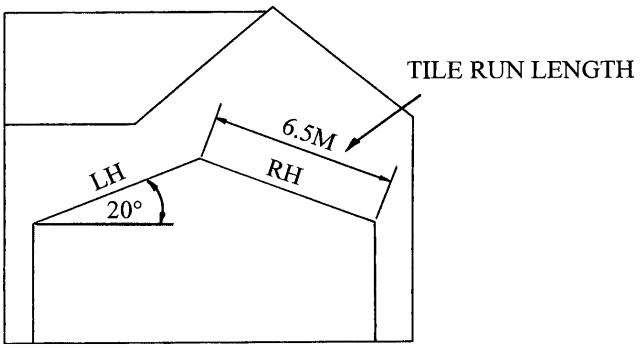
Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 150mm COURSING FROM TILE RUN LENGTH

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

For 150mm coursing Stone / Blockwork Intermediate trays are available in two alternative lengths 814mm long GW291 LBS / GW292 LBS for roof pitches 12 degrees to 24 degrees (Example 1) and GW291 SBS / GW292 SBS 448mm long for roof pitches 25 degrees to 50 degrees (Example 2).

EXAMPLE 1



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

		GW291LBS / GW292 LBS 17.5° TO 24°			
ROOF PITCH		17.5	20	22.5	24
TILE RUN LENGTH	1	1	1	2	2
	1.5	2	2	3	3
	2	3	4	4	4
	2.5	4	5	5	6
	3	5	6	7	7
	3.5	6	7	8	8
	4	7	8	9	10
	4.5	8	9	10	11
	5	9	10	12	13
	5.5	10	12	13	14
	6	11	13	14	15
	6.5	12	14	16	17
	7	13	15	17	18
	7.5	14	16	18	19
	8	15	17	19	21
	8.5	16	18	21	22
	9	17	20	22	23
	9.5	18	21	23	25

Example:

20° pitch with a **6.5M** Run Length = **14**

That means you would need **14** GW291 LBS Intermediate trays for the RH side of the pitched roof abutment.

And **14** GW292 LBS Intermediate trays for the LH side of the abutment.

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 24.06.19

The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.

DRG No **MBP 8150**

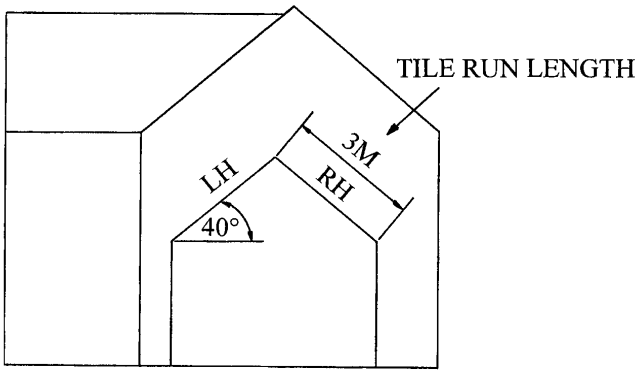
Issue B

Manthorpe Building Products

Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 150mm COURSING FROM TILE RUN LENGTH

EXAMPLE 2



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

Example:

40° pitch at **3M** Tile Run Length **= 12**

So you would need **12** GW291 SBS Intermediate trays for the RH side of the pitched roof abutment.

And **12** GW292 SBS Intermediate trays for the LH side of the abutment.

		GW291 SBS / GW292 SBS 25° TO 50°										
ROOF PITCH		25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
TILE RUN LENGTH	1	2	2	2	3	3	3	3	4	4	4	4
	1.5	3	4	4	4	5	5	5	6	6	6	7
	2	5	5	6	6	7	7	8	8	8	9	9
	2.5	6	7	7	8	9	9	10	10	11	11	12
	3	7	8	9	10	10	11	12	13	13	14	14
	3.5	9	10	11	12	12	13	14	15	15	16	17
	4	10	11	12	13	14	15	16	17	18	19	19
	4.5	12	13	14	15	16	17	18	19	20	21	22
	5	13	14	16	17	18	19	20	22	23	24	25
	5.5	14	16	17	19	20	21	23	24	25	26	27
	6	16	17	19	20	22	23	25	26	27	28	30
	6.5	17	19	21	22	24	25	27	28	30	31	32
	7	19	21	22	24	26	27	29	31	32	33	35
	7.5	20	22	24	26	28	29	31	33	34	36	37
	8	22	24	26	28	30	31	33	35	37	38	40
	8.5	23	25	27	29	32	33	35	37	39	41	42
	9	24	27	29	31	33	36	38	40	41	43	45
	9.5	26	28	31	33	35	38	40	42	44	46	48

In both examples one GW293 BS Catchment tray per side of the abutment will also be required. If the roof abutment ends at a corner then a GW293 CC BS Corner Catchment tray would be required instead of a standard catchment tray.

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

Lastly a GW295 Horizontal / Apex tray should be used if the abutment terminates at an apex but in certain low pitch situations two GW295's may be required and hooked together.

All trays can be supplied unleaded or with lead attached.

Note: - 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)

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A	Date 24.06.19	DRG No	Issue
The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.		**MBP 8150**	B

Manthorpe Building Products

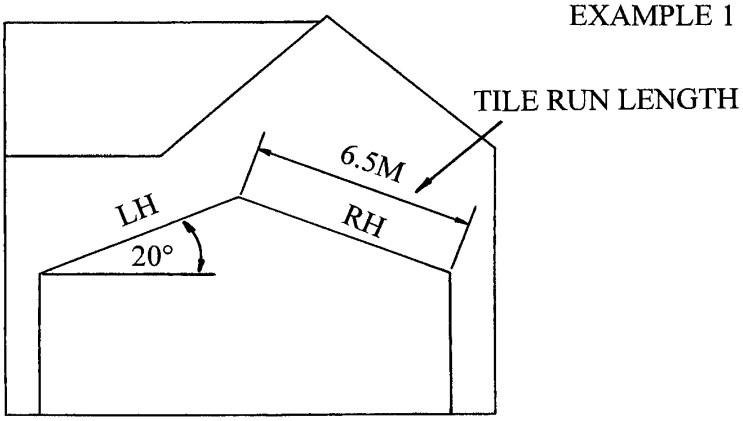
Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 225mm COURSING FROM TILE RUN LENGTH

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

For 225mm coursing Stone / Blockwork Intermediate trays are available in two alternative lengths 814mm long GW291 LBS / GW292 LBS for roof pitches 17.5 degrees to 34 degrees (Example 1) and GW291 SBS / GW292 SBS 448mm long for roof pitches 35 degrees to 50 degrees (Example 2).

EXAMPLE 1



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

Example:

20° pitch **6.5M** tile run length = **9**

So you would need **9** GW291 LBS Intermediate trays for the RH side of the pitched roof abutment.

And **9** GW292 LBS Intermediate trays for the LH side of the abutment.

		GW291 LBS / GW292 LBS 17.5° TO 34°							
ROOF PITCH		17.5	20	22.5	25	27.5	30	32.5	34
TILE RUN LENGTH	1	0	1	1	1	1	1	1	1
	1.5	1	1	2	2	2	2	3	3
	2	2	2	2	3	3	3	4	4
	2.5	2	3	3	4	4	5	5	5
	3	3	4	4	5	5	6	6	6
	3.5	4	4	5	6	6	7	7	8
	4	4	5	6	7	7	8	9	9
	4.5	5	6	7	7	8	9	10	10
	5	6	7	8	8	9	10	11	11
	5.5	6	7	8	9	10	11	12	13
	6	7	8	9	10	11	12	13	14
	6.5	8	9	10	11	12	13	15	15
	7	8	10	11	12	13	15	16	16
	7.5	9	10	12	13	14	16	17	18
	8	10	11	13	14	15	17	18	19
	8.5	10	12	13	15	16	18	19	20
	9	11	13	14	16	17	19	20	21
	9.5	12	13	15	17	18	20	22	23
	10	12	14	16	18	20	21	23	24

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpe.co.uk
WEB: www.manthorpebp.co.uk

DRN M.A | Date 24.06.19

The company maintains a policy of continuous development of its product range and reserves the right to amend the specification without notice.

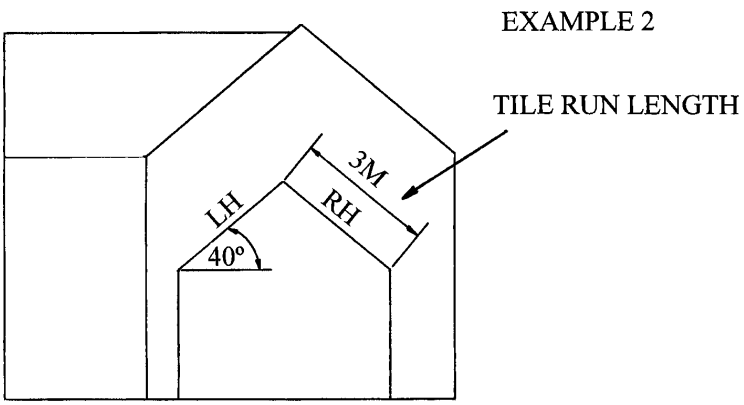
DRG No **MBP 8151**

Issue B

Manthorpe Building Products

Product Information Sheet

STEPPED CAVITY TRAYS CALCULATION 225mm COURSING FROM TILE RUN LENGTH



Example:

40° pitch with a **3M** tile run length = **8**

So you would need **8** x GW291 SBS Intermediate trays for the RH side of the pitched roof abutment.

And **8** GW292 LBS Intermediate trays for the LH side of the abutment.

In both examples one GW293 BS Catchment tray per side of the abutment will also be required. If the roof abutment ends at a corner then a GW293 CC BS Corner Catchment tray would be required instead of a standard catchment tray.

A G950 Weep Vent must be used in conjunction with all catchment trays to drain away the collected water safely. Lastly a GW295 Horizontal / Apex tray should be used if the abutment terminates at an apex but in certain low pitch situations two GW295's may be required and hooked together.

		GW291 SBS / GW292 SBS 35° TO 50°						
ROOF PITCH		35	37.5	40	42.5	45	47.5	50
TILE RUN LENGTH	1	2	2	2	2	2	2	2
	1.5	3	3	3	4	4	4	4
	2	4	4	5	5	5	6	6
	2.5	5	6	6	7	7	7	8
	3	7	7	8	8	8	9	9
	3.5	8	8	9	10	10	10	11
	4	9	10	10	11	12	12	13
	4.5	10	11	12	13	13	14	14
	5	12	13	13	14	15	15	16
	5.5	13	14	15	16	16	17	18
	6	14	15	16	17	18	19	19
	6.5	16	17	18	19	19	20	21
	7	17	18	19	20	21	22	23
	7.5	18	19	20	22	23	24	25
	8	19	21	22	23	24	25	26
	8.5	21	22	23	25	26	27	28
	9	22	23	25	26	27	28	30
	9.5	23	25	26	28	29	30	31
	10	24	26	28	29	30	32	33

All trays can be supplied unleaded or with lead attached.

Note: - 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).

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE
BRITTAIN DRIVE
CODNOR GATE BUSINESS PARK
RIPLEY
DERBYSHIRE DE5 3ND

TEL: 01773 303 000
FAX: 01773 303 300
EMAIL: mbp.care@manthorpebp.co.uk
WEB: www.manthorpebp.co.uk

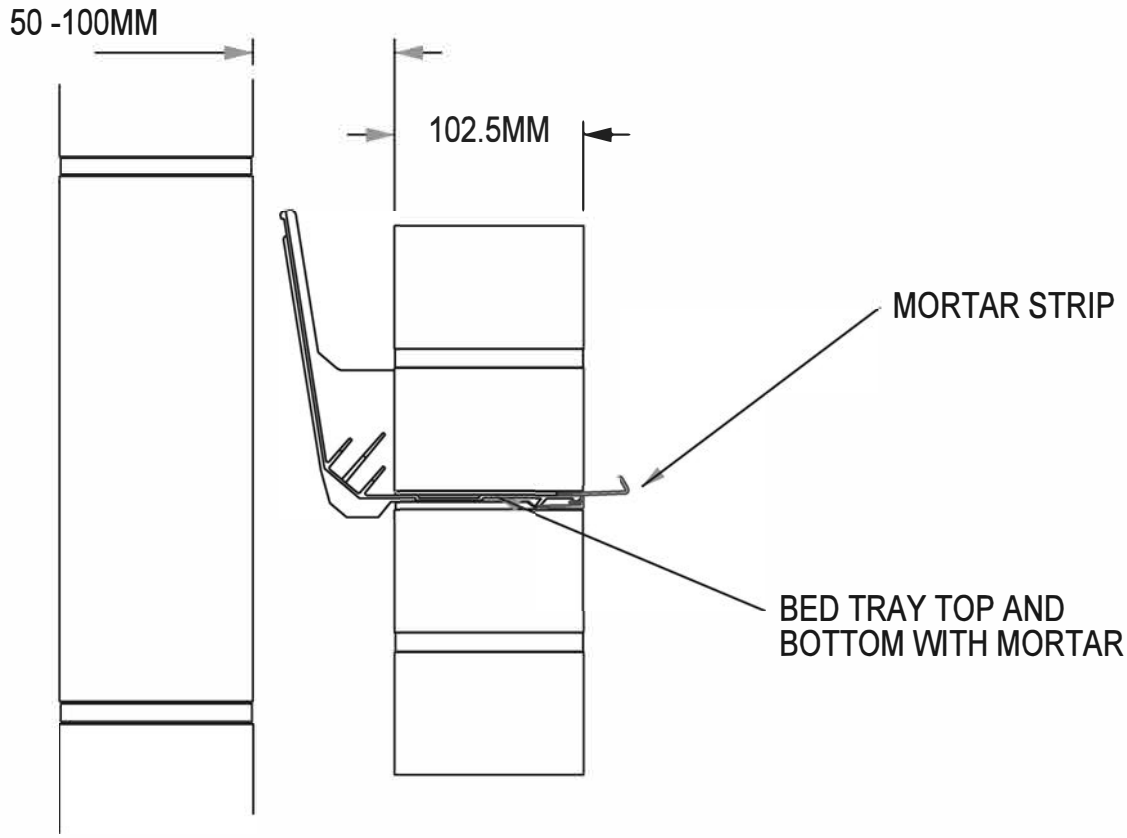
DRN M.A | Date 24.06.19

DRG No: MBP 8151

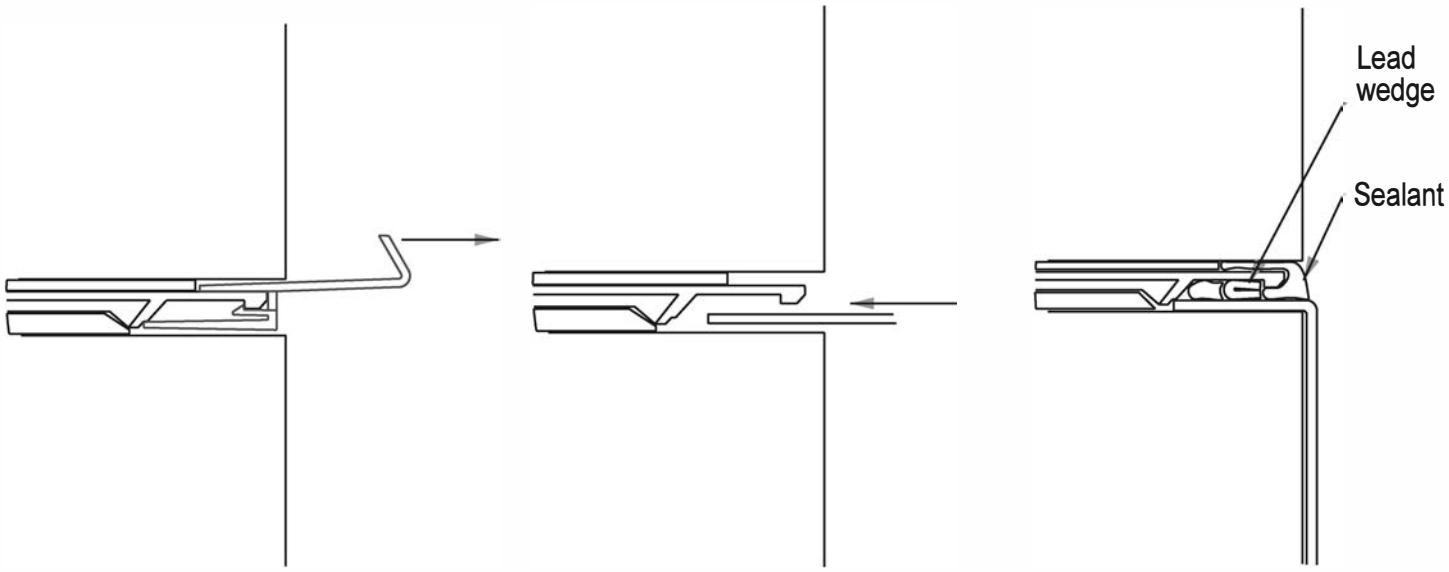
Issue: B

Manthorpe Building Products | Product Information Sheet

TITLE GENERAL FITTING DETAIL UNLEADED TRAYS | CODE



FITTING LEAD



1. Wait until mortar is dry and wall is stable then pull out mortar stip 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.

MANTHORPE BUILDING PRODUCTS LIMITED
MANTHORPE HOUSE, BRITTAIN DRIVE,
CODNOR GATE BUSINESS PARK,
RIPLEY, DERBYSHIRE DE5 3ND.

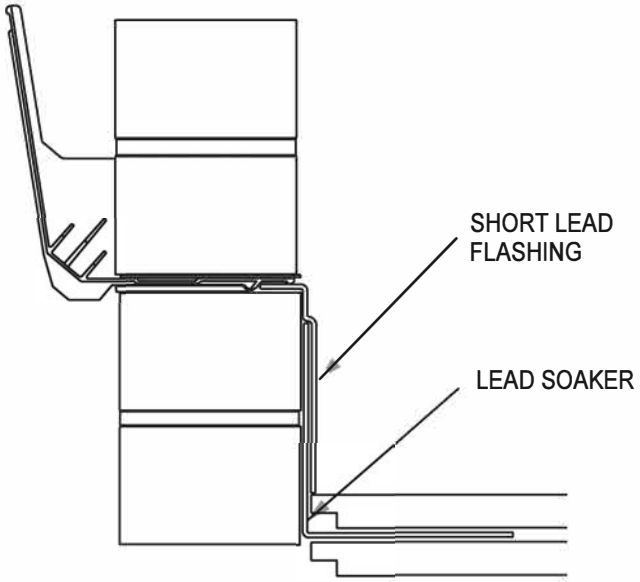
TELE: 01773 303 000
FAX: 01773 303 300
Email:
mbp.care@manthorpebp.co.uk
Web:
www.manthorpebp.co.uk

Drn	Date	DRG No	ISSUE
MC	21/06/19	8046	B

TITLE DIFFERENT LEAD TYPES | CODE

Depending upon the application different sizes of lead should be used

1



For general details and normal exposure areas code 4 lead is recommended. For severe exposure areas code 5 lead is recommended

Fig. 1 shows a typical abutment situation using lead soakers.

2

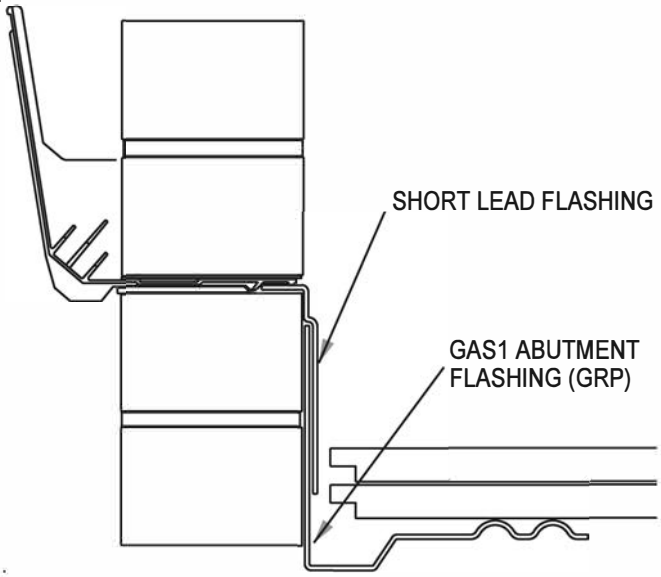


Fig. 2 shown an abutment flashing and secret gutter detail. Secret gutters are traditionally made from lead but are now more commonly bought preformed in GRP.

3

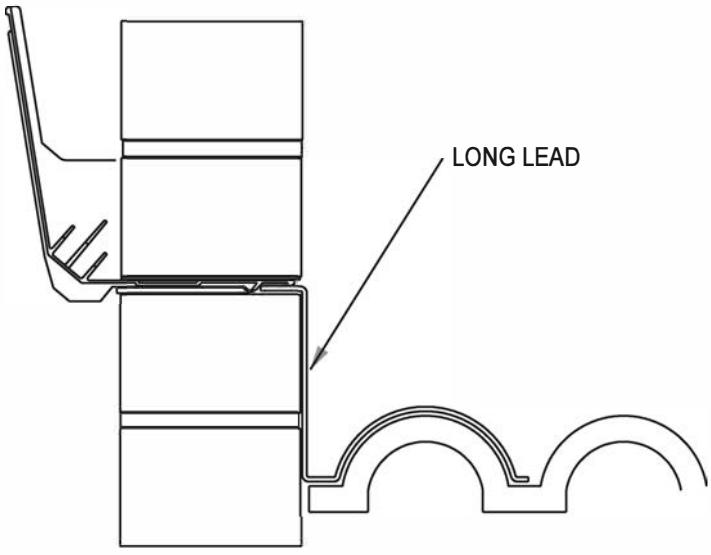


Fig. 3 shows a long lead application. In this detail the lead is dressed over the tile in one continuous piece then moulded into the contours of the tile. This type of flashing should only be used on contoured roof finishes.

FOR FURTHER TECHNICAL INFORMATION ON THE FITTING OF LEAD SHEET REFER TO

THE LEAD SHEET MANUAL
Available from
LEAD SHEET ASSOCIATION

MANTHORPE BUILDING PRODUCTS LTD
MANTHORPE HOUSE, BRITTAIN DRIVE,
CODNOR GATE BUSINESS PARK,
RIPLEY, DERBYSHIRE DE5 3ND.

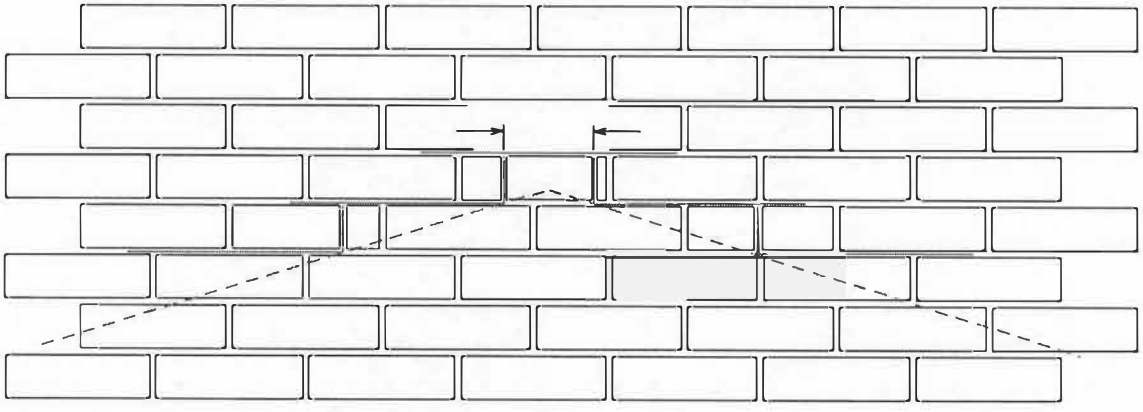
TELE: 01773 303 000
FAX: 01773 303 300
Email: mbp.care@manthorpebp.co.uk
Web: www.manthorpebp.co.uk

Drn	Date	DRG No	ISSUE
MC	21/06/2019	8047	B

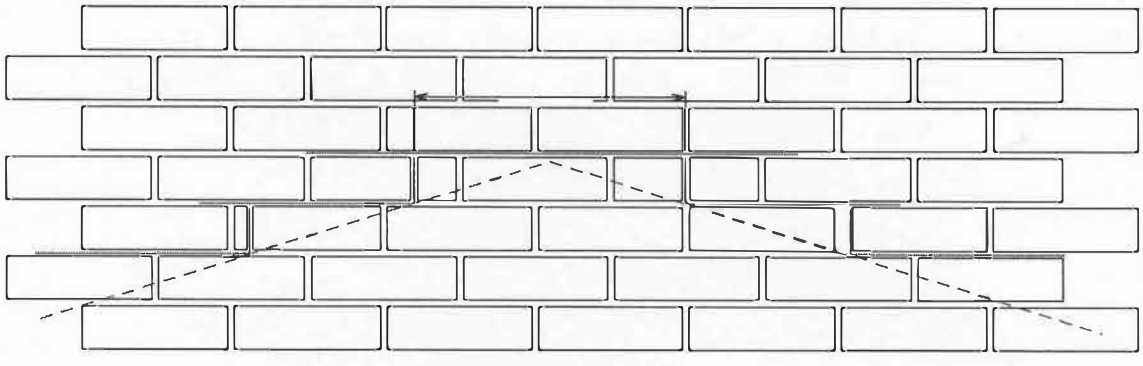
TITLE: REASON FOR LONG APEX TRAY | CODE

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

MANTHORPE BUILDING PRODUCTS LIMITED MANTHORPE HOUSE, BRITTAIN DRIVE, CODNOR GATE BUSINESS PARK, RIPLEY, DERBYSHIRE DE5 3ND.

TELE: 01773 303 000 FAX: 01773 303 300
Email: mbp.care@manthorpebp.co.uk Web: www.manthorpebp.co.uk

Drn: MC | Date: 21.06.19

DRG No: 8052

ISSUE: B