

October 2025



INSTALLATION MANUAL



Pursuing Reinvention





Important

When walking on Harvey Tiles, always wear grippy, soft-soled work footwear. Step sideways along the bottom centre as this is supported by the battens, or try to step on two tiles at once.... It is important that you distribute your weight evenly and keep your centre of gravity. Do not step into the "pan" of the tile.

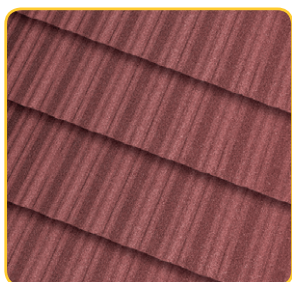
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Product Range Profiles

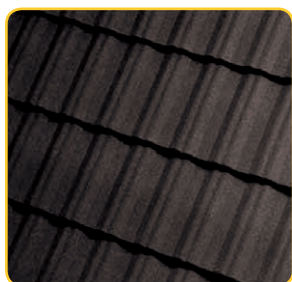
Harvey Elite



Tile Specification (Approx.)

Overall Length:	1675 mm
Cover:	1600 mm
Overall Width:	397 mm
Cover:	369 mm
Mass per tile:	3.3 kg
Mass per sq. metre:	5.6 kg
No. of tiles per sq. metre:	1.69

Harvey Elite Plus



Tile Specification (Approx.)

Overall Length:	1675 mm
Cover:	1600 mm
Overall Width:	397 mm
Cover:	369 mm
Mass per tile:	3.9 kg
Mass per sq. metre:	6.6 kg
No. of tiles per sq. metre:	1.69

Harvey Thatch



Tile Specification

Overall Length:	1675 mm
Cover:	1 625 mm
Overall Width:	395 mm
Cover:	350 mm
Mass per tile:	4.2 kg
Mass per sq. metre:	6.9 kg
No. of tiles per sq. metre:	1.76

Solar Bracket

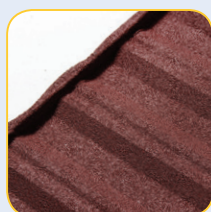


Bracket Specification

The Harvey Solar bracket is suitable for the application of solar panels and geysers. Manufactured from high tensile steel, there is no need to pierce the Harvey Roof Tile and risk a leaking roof. The Harvey Solar Bracket is easily fitted onto the timber or steel batten. Uniform Wind Uplift: 2Kn/m²



Midnight Black



Burgundy



Green



Terracotta



Dark Blue



Midnight Black



Greystone



Burgundy



Green



Terracotta



Dark Blue



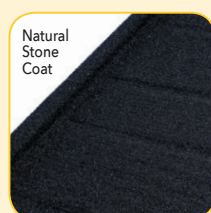
Thatch Dark



Thatch Light



Thatch Greystone



Thatch
Midnight Black

Timber requirements

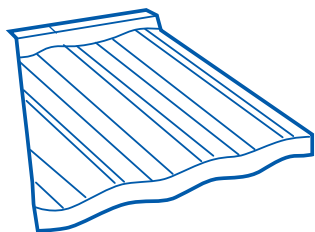
Timber specifications are calculated on the basis of using graded SABS soft woods. Battens must be spaced according to specification in this manual.

Rafters spaced at the following maximum centres:

Using 38 x 38 mm battens - 1.1m centres

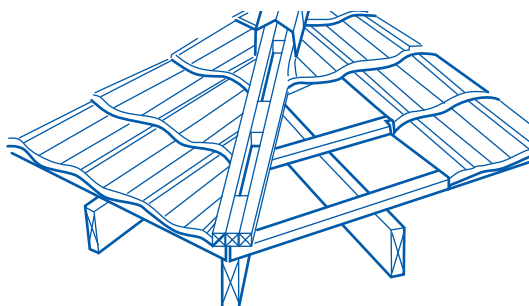
Using 38 x 50 mm battens - 1.2m centres

Using 50 x 50 mm battens - 1.3m centres



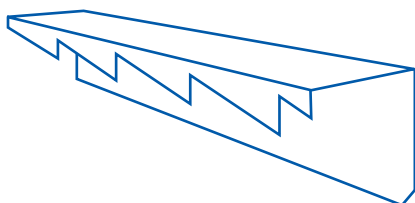
Tiles

Each tile is fastened using 2 serrated nails driven through the rear return flange of the tile and 4 through the front edge of the tile into the battens.



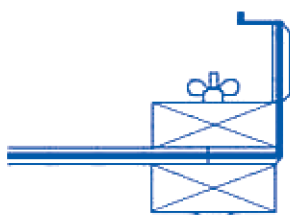
Hips

Hip battens are fitted on the hip line to accommodate either angle or square hip caps - as described for the ridge detail. Tiles are cut and bent up against the battens. The hip caps are fitted over the battens and tile upturn and nailed through the side of the hip caps into the face of the batten using 2 nails on each side.



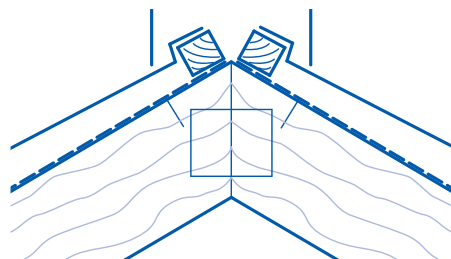
Gable end

Gables are fitted with a continuous serrated barge board cover to mesh with the tile profile. The cover is fastened along the barge board length using 3 nails.



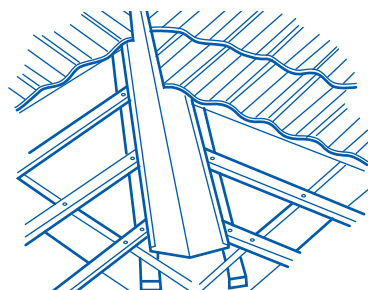
Quarter tile at ridge

When a short course of tiles is required at the ridge, either the tile or a cover flashing is cut and bent to suit the shortened dimension. The back of the tile/cover flashing is bent up by 25mm to fit against the ridge and batten.



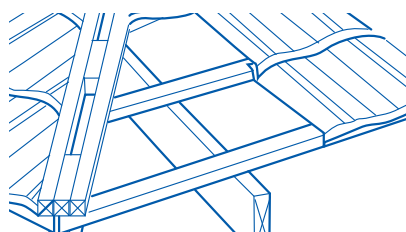
Ridges

When angle ridges are used, two tile battens are fitted one on either side at the apex of the truss. For square ridge caps, one tile batten is fitted on the apex of the ridge. The ridge caps are fitted over these battens and nailed through the sides of the ridge caps into the tile upturn and face of the battens, using 4 serrated nails on each side.



Valley

Galvanised steel valley linings are supported by 38mm x 76mm timber bearers and are then installed flush with rafters. Adjacent tiles to be measured and cut, allowing sufficient downturn into the valley.



Eaves

The bottom course of tiles to be secured with 4 nails driven vertically through the weather surface of the tile into the last batten.

Tiling in general

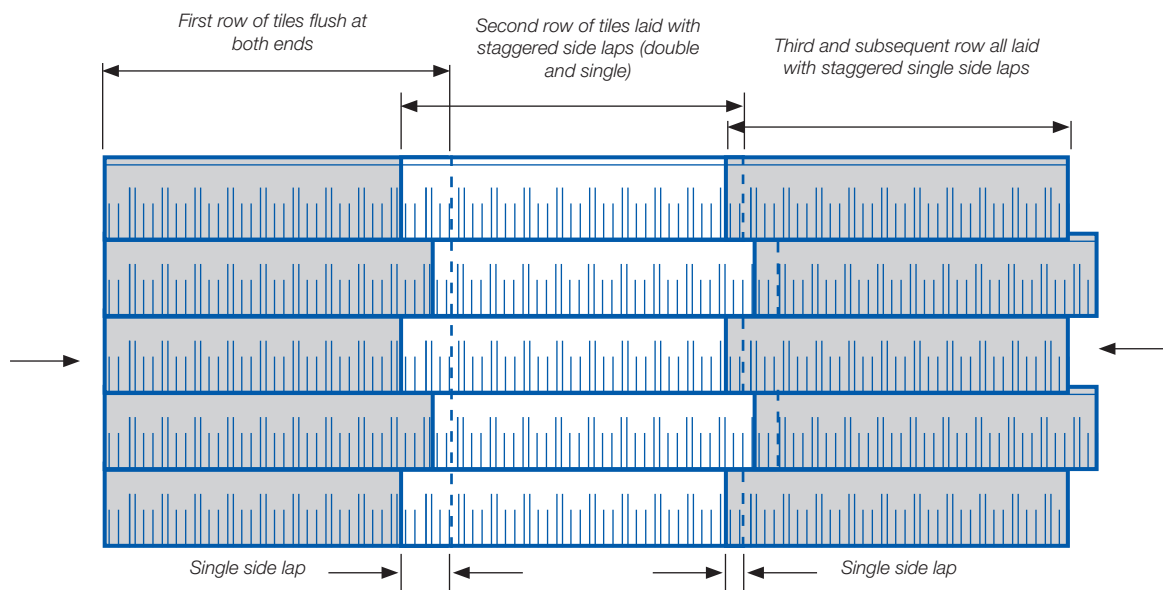
The tiles can be side-lapped either right over left or left over right.

The following is recommended:

1. Laps must face away from valleys or rainwater pipes discharging onto the roofs.
2. Where possible, tiles are to be laid with laps facing away from normal line of sight. Tiling should be started from the bottom of the roof, except on steep pitches where it is advisable to start tiling at the apex.

Staggering of tiles

(Excluding Shakatile) In order to break up the line of joins visible on the roof and to improve the aesthetic appearance it is recommended that tiles have a staggered pattern when installed. The stagger is obtained by laying every second tile in alternate courses with a double side lap when overlapping the first row of tiles. The remainder of the tiles are then laid with the usual single side lap.



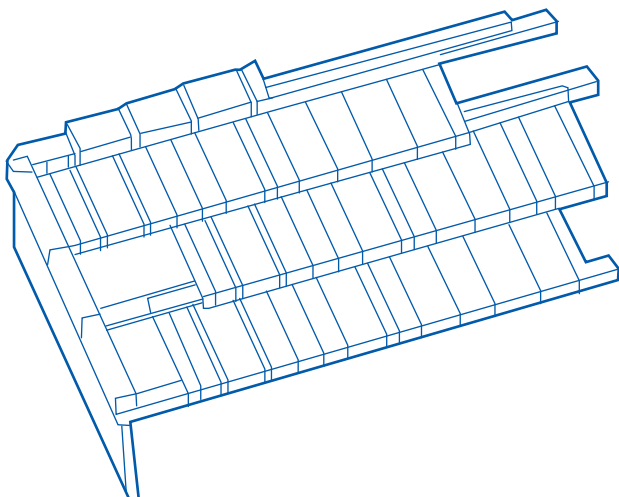
Note: Tiles may be lapped from left to right or from right to left as long as the open side of the joints always face the same way.



Double side lap



Single side lap



Layout pattern: Shakatile

The detail on the left shows a typical random pattern of the Shakatile. This random laying pattern is necessary to recreate the look of natural timber shakes

General fixing procedures

Roof Preparation

Harveytiles are normally used with standard 114 x 38mm timber trusses in conjunction with 38 x 38mm battens. To save cutting and waste of tiles, rafter and batten lengths should be designed to suit an exact number of full tile courses.

Truss Configuration

Consult Harvey Roofing Products or a reputable manufacturer for optimum truss designs. For normal applications, using a 38 x 38mm batten, maximum truss spacing of 1,1m is permitted.

Batten Spacing - Elitetile and *Thatch

Note: the correct batten spacing is critical for a leak proof roof and must be as shown.

Pitch

The tiles can be used without underlay on roof pitches between 15° and 45°, from 10° to 15° with underlay.

Nailing Of Tiles

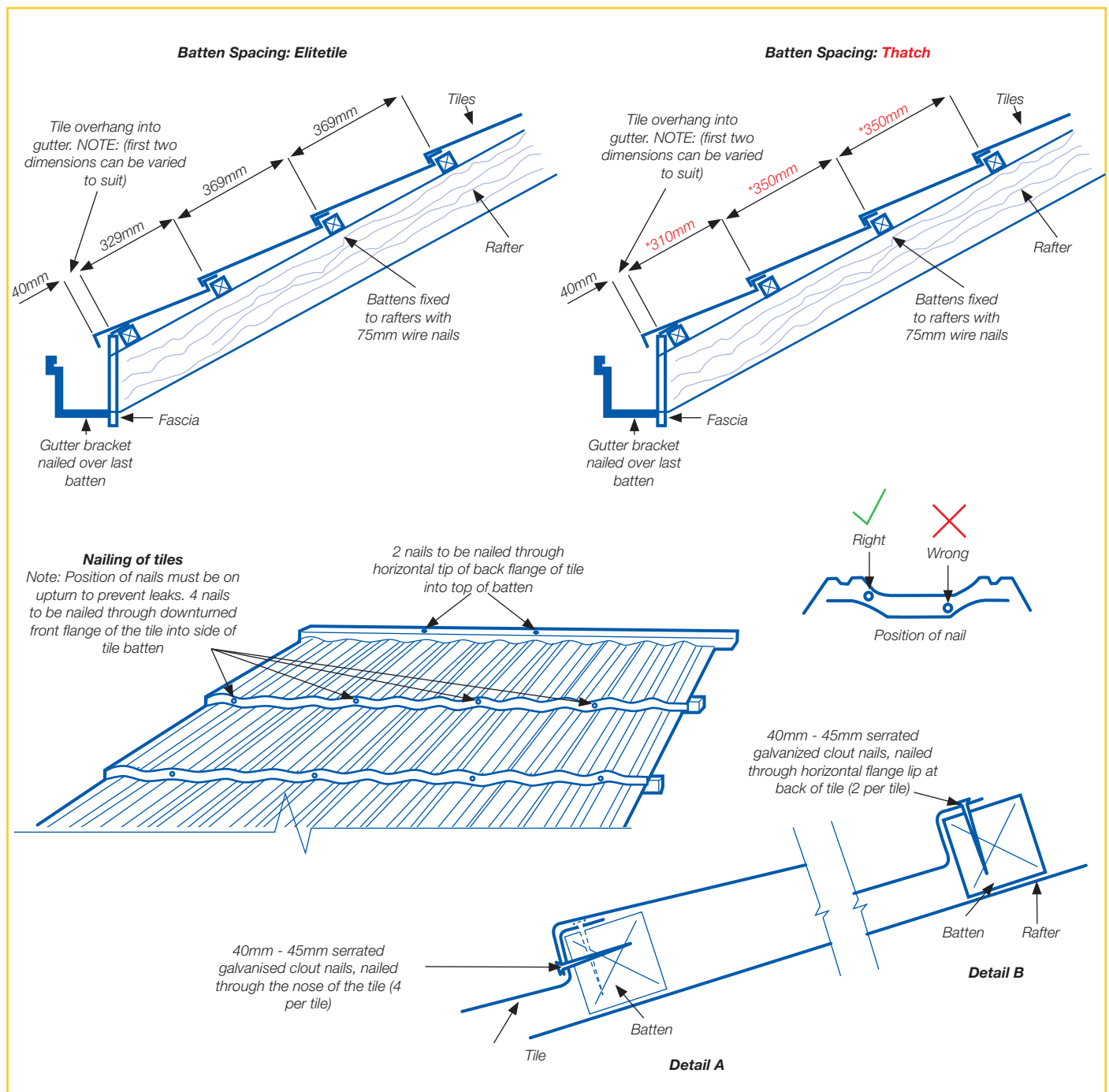
To prevent leaks, tiles must never be nailed through the top weather surface, except at eaves. Tiles are secured with 40mm - 45mm serrated galvanised clout nails as shown. However, always use a ball headed hammer.

Touching Up Nail Heads

All exposed nail heads must be spotted with touch-up paint.

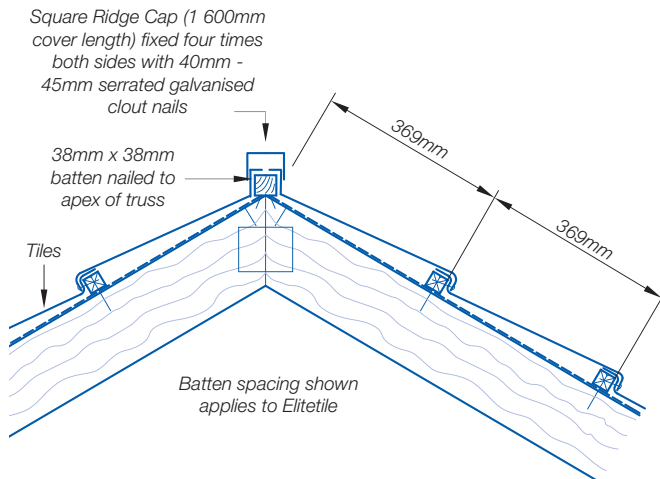
Cut Edges

Any cut edges must be coated with touch-up paint.

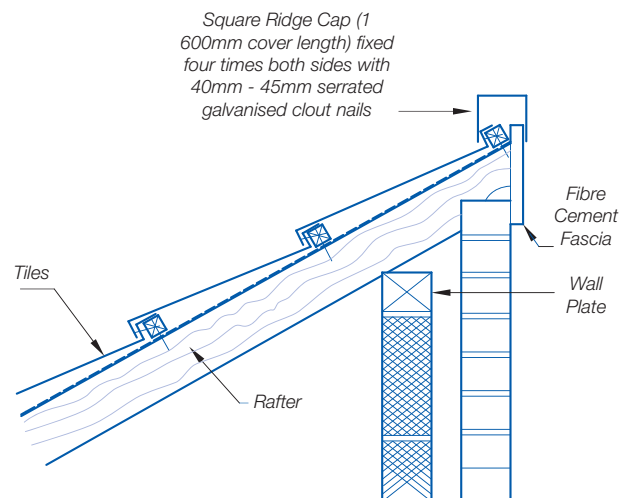


Ridge details

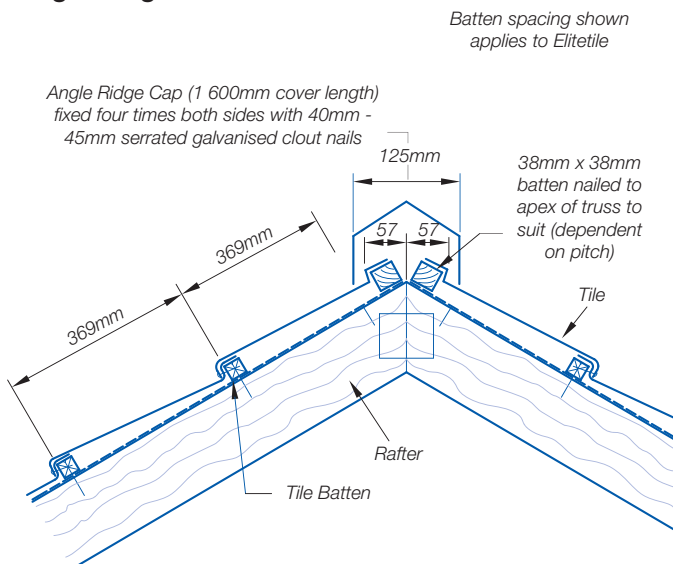
Square Ridge Detail



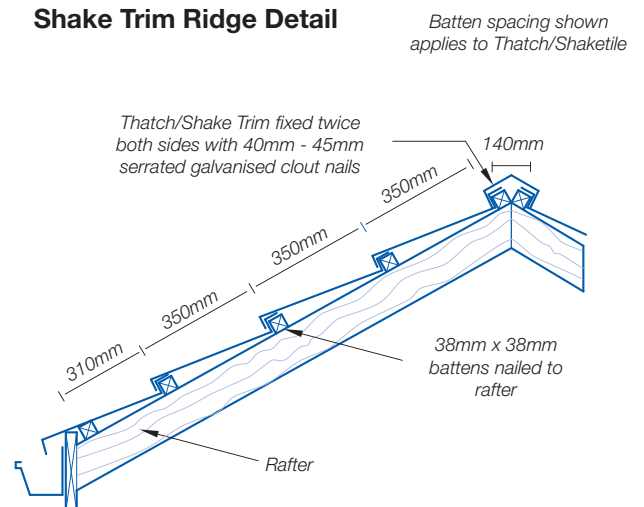
Mono Ridge Detail



Angle Ridge Detail

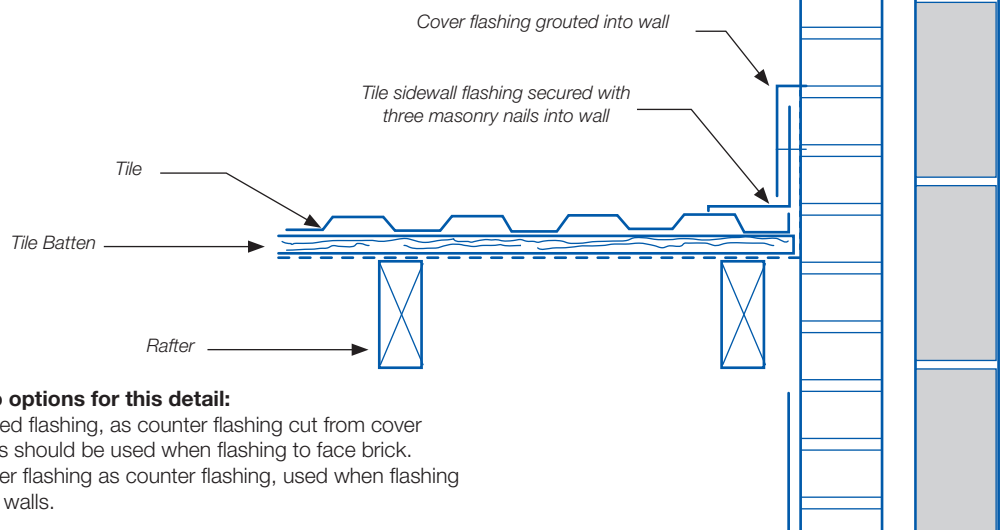


Shake Trim Ridge Detail

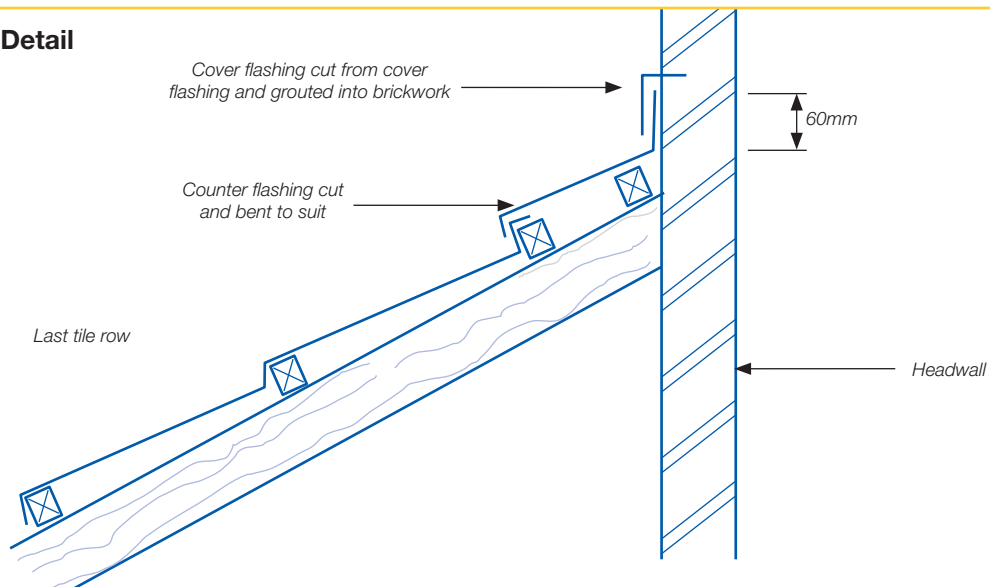


Flashing details

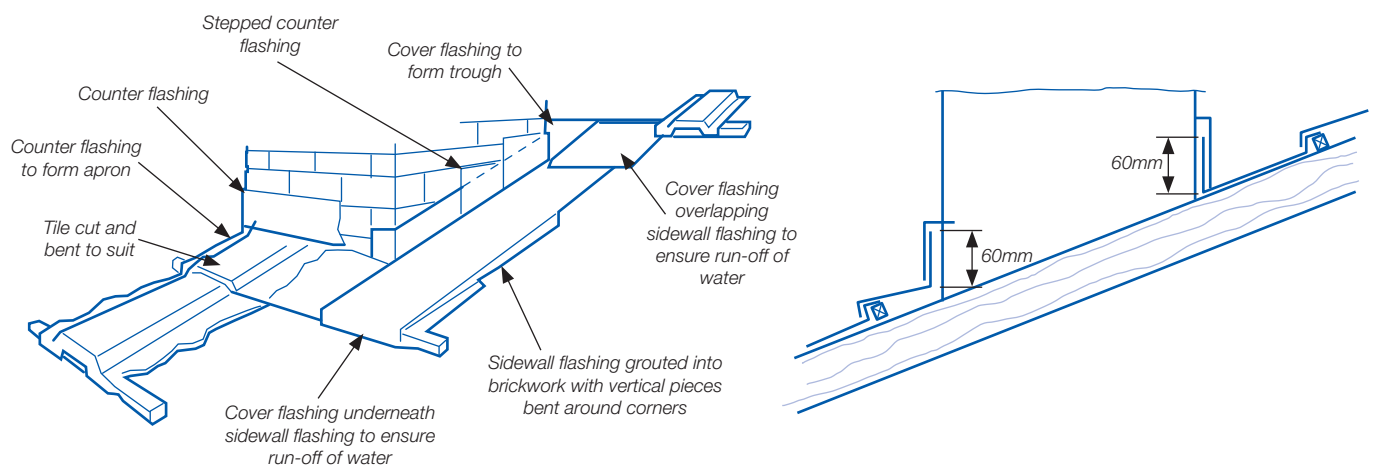
Sidewall Flashing Detail



Headwall Flashing Detail



Chimney Flashing Detail

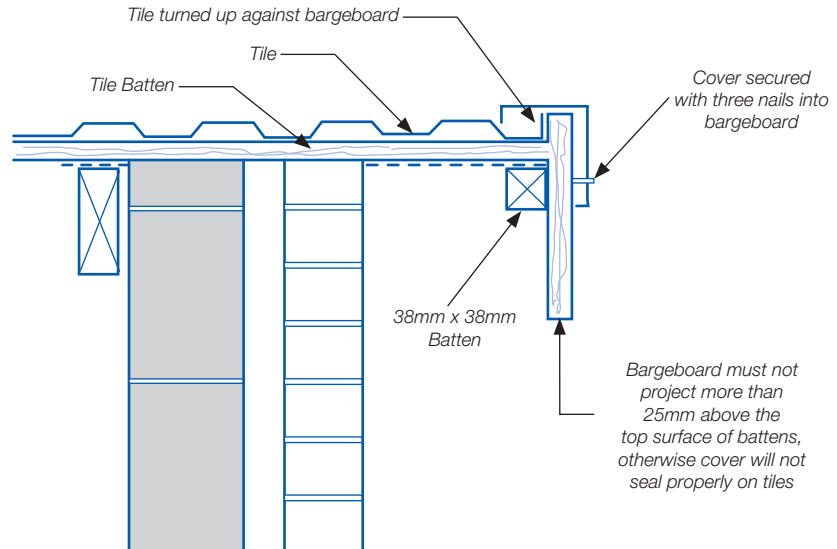


Gable end details

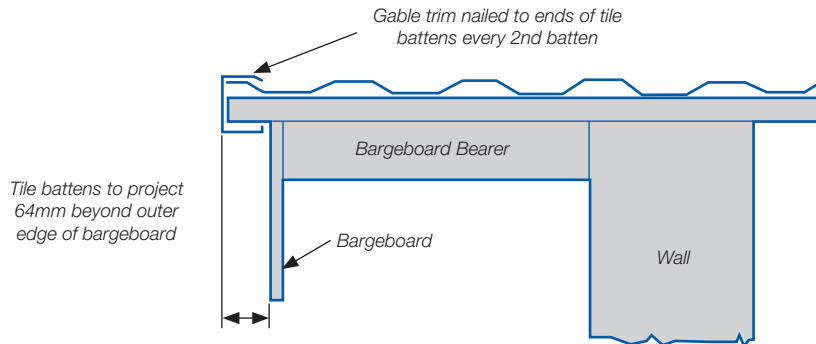
Bargeboard Cover

This optional fitting, against bargeboard besides providing a neat finish, protects the end of the battens from water running between the ends of the tiles and the bargeboard.

The bargeboard cover must be fixed flush with the top of the tile and fibre cement bargeboard.



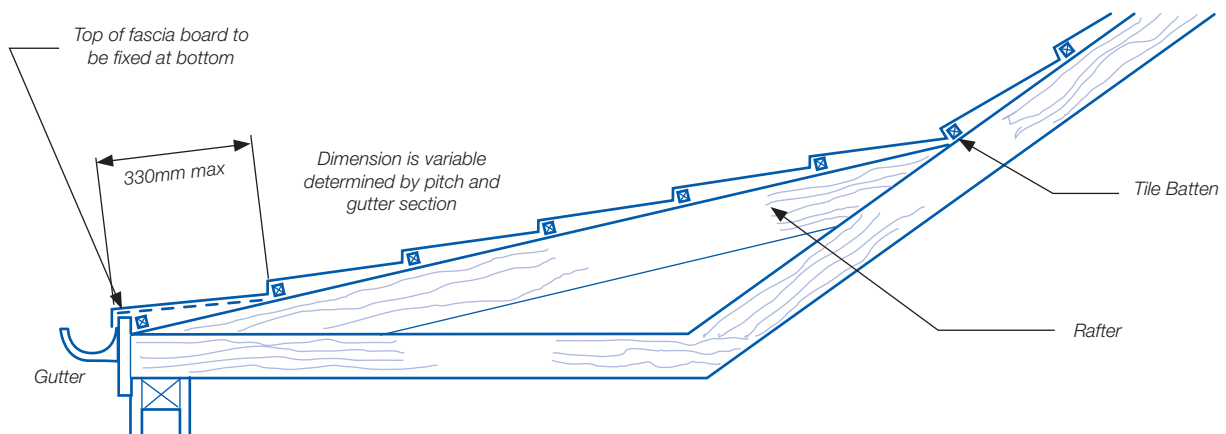
Gable Trim



Note:

1. Standard overhang at Gable end is 300mm.
2. Bargeboard cover to meet tile so that water flow is channeled away from bargeboard.
3. Bargeboard cover can be vertically secured by pop-rivetting or by using self-tapping screws.
4. Touching up with touch-up paint is mandatory.
5. The Gable Trim is an economical alternative to the standard bargeboard cover.

Break in Roof Pitch Detail



Valley details

Note:

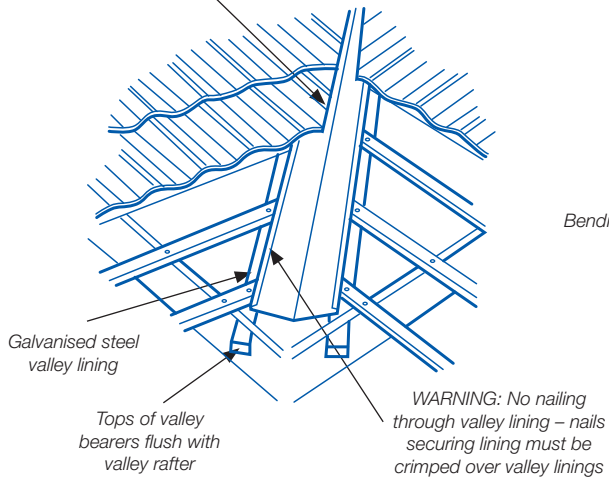
1. Care must be taken not to nail through the valley lining.
2. An extra precaution is taken by bending the edges of the cut tiles down into the valley.

Bending and Cutting Equipment

The following is a list of tools that would provide the roofer with a complete tool kit:

- Claw and Ball Hammer
- Builder's Line Tiling batten
- Measuring Tape
- Pop Rivet Gun
- Nail Pouch
- Chalk Line
- Saw
- Metal Shears or Tin Snips
- Hand Benders
- Angle Grinder

The tiles may be butted together to form a closed valley or 50mm wide minimum open valley may be formed, cut edges of tiles must be bent down

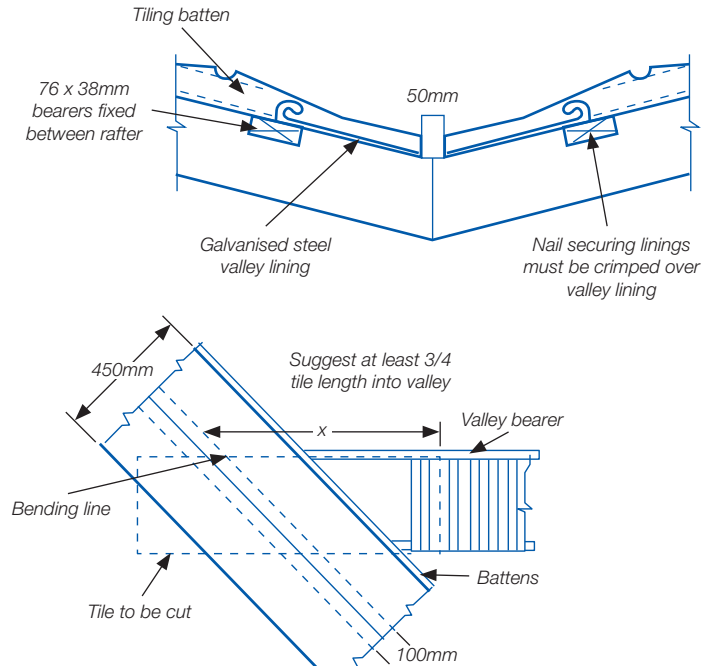


Cutting Tools

Angle Grinder: This is the most common method of cutting tiles.

Tin Snips: Ideal for cutting shorter lengths such as detailing at junctions.

Full tile benders: Are available for bending tiles.

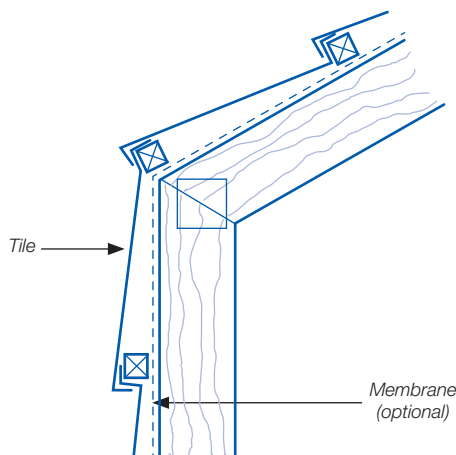


To measure X and Y (Bending Line)

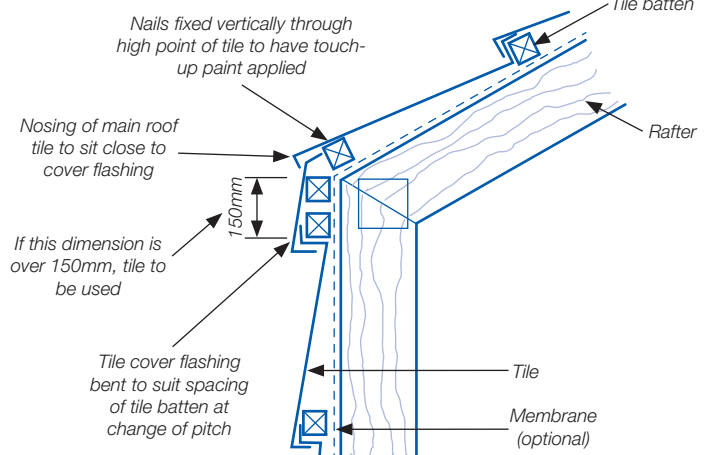
1. Strike chalk line 50mm on either side of centre line of valley lining
2. Measure from last flute of last complete tile to this chalk line to obtain X and Y dimensions

Mansard details

Type A

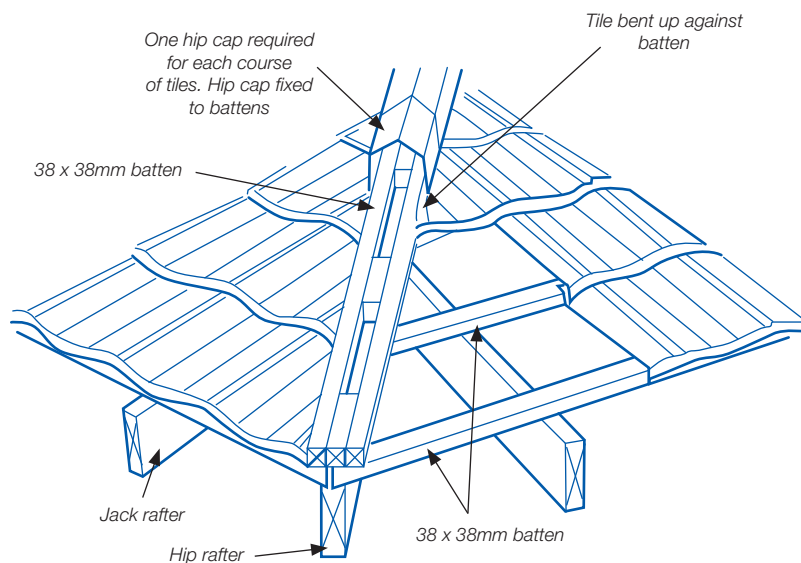
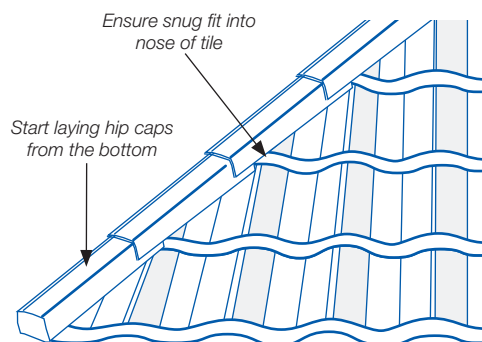


Type B

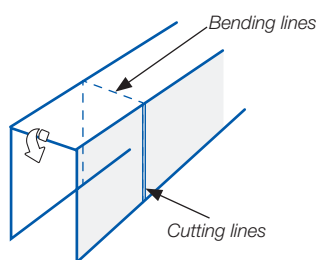


Hip details

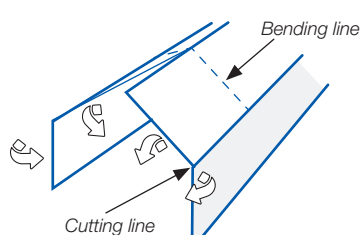
1. Hip caps are fitted starting from the bottom of the hip.
2. Hip caps must be laid with the back (deepest end) of the cap fitted against the front end of the tiles (the nose) in the course above.
3. Caps are tapered to ensure a snug fit of 38 x 38mm batten



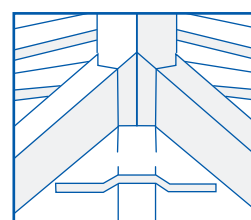
Square Hip Cap



Angle Hip Cap

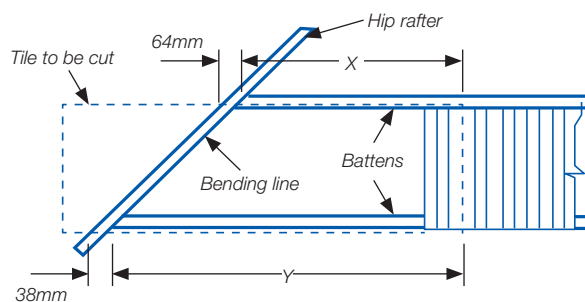
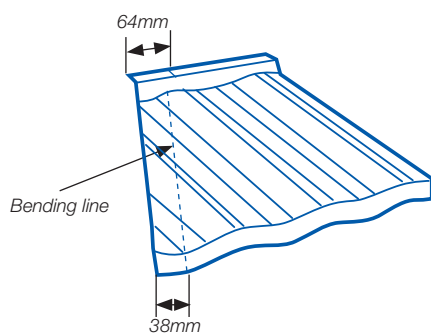


Fix hip caps, then cut and shape the ridge cap for a waterproof finish

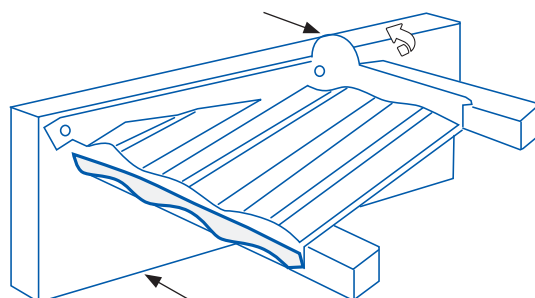


Bend hip cap end into hip cap

Cutting tile flanges before bending up



Tiles at hip must be cut to allow for a side turn up, tapering from 64mm at back to 38mm at front



Bent-up flange of cut tile to be nailed to 38 x 38 nailing strip if angle hip caps are used (Nail directly to hip rafter if square hip caps are used as shown in diagram)

Estimating data

The following is based on standard information.

All roofs vary so clients must take special care whilst calculating quantities.

Tile Calculator for Elite and Elite Plus Tiles

Eaves Length (m)	Rafter Length		2 583	2 952	3 321	3 690	4 059	4 428	4 797	5 166	5 535	5 904	6 273	6 642	7 011	7 380
			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	3 208	2	14	16	18	20	22	24	26	28	30	32	34	36	38	40
	4 812	3	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	6 416	4	28	32	36	40	44	48	52	56	60	64	68	72	76	80
	8 020	5	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	9 624	6	42	48	54	60	66	72	78	84	90	96	102	108	114	120
	11 228	7	49	56	63	70	77	84	1	98	10	112	9119	126	133	140
	12 832	8	56	64	72	80	88	96	104	112	120	128	136	144	152	160
	14 436	9	63	72	81	90	99	108	117	126	135	144	153	162	171	180
	16 040	10	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	17 644	11	73	88	99	110	121	132	143	154	165	176	187	198	209	220

Tile Calculator for Thatch Tiles

Eaves Length (m)	Rafter Length		2 450	2 800	3 150	3 500	3 850	4 200	4 550	4 900	5 250	5 600	5 950	6 300	6 650	7 000
			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	3 240	2	14	16	18	20	22	24	26	28	30	32	34	36	38	40
	4 860	3	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	6 480	4	28	32	36	40	44	48	52	56	60	64	68	72	76	80
	8 100	5	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	9 720	6	42	48	54	60	66	72	78	84	90	96	102	108	114	120
	11 340	7	49	56	63	70	77	84	1	98	10	112	9119	126	133	140
	12 960	8	56	64	72	80	88	96	104	112	120	128	136	144	152	160
	14 580	9	63	72	81	90	99	108	117	126	135	144	153	162	171	180
	16 200	10	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	17 820	11	73	88	99	110	121	132	143	154	165	176	187	198	209	220

Useful Constant Table

	Ridge to Gutter	Hip Length Std/Valley Length
15*	1 042	1 445
20*	1 064	1 460
25*	1 103	1 488
30*	1 155	1 528
35*	1 221	1 578
40*	1 305	1 644
45*	1 414	1 732
50*	1 556	1 850
55*	1 643	2 009
	Batten Centres	Tile m ²
Elite	369 c/c	1,7
Shaketile	350 c/c	1,76

There are two common ways of estimating tiles and accessories for a building. Type "A" is the rafter length method and Type "B" is the roof area method.

a) First determine rafter length:
 Span + 2 = 3 000
 3 000 x 1 155 (constant for 30°)
 = 3 465 m + tile batten centre
 = number of courses of tiles from ridge to gutter
 ie. 3 465 + 369 (Elite) = 9.39 therefore
 10 rows of tiles

Now take overall length and + tile cover
 12 000 + 1.6 = 7.5 tiles (1 side calc.)

Conclusion: therefore 7.5 x 10 rows =
 75 tiles x 2 for both sides.
 Therefore 75 x 2 = 150 tiles. Rake and
 waste as well as ridges and hips must
 now be calculated.

Hips Calculation

Take 1/2 span of overall and multiply by
 hip constant for 30°
 (Useful Constant Table)

3 000 x 1 528 = 4 584 L/m
 There are two such hips therefore total
 hip length is
 4 584 x 2 = 9 168

This figure can be divided by the
 relevant cover of the accessory
 required ie. Hip Caps or Ridges.

Hips Rake and Waste

Take the total hip length and multiply by
 .3 and then by 2 (for both sides of hip or
 valley cut)

4 584 x 0.3 = 1 375m
 1 375m x 2 = 2.75m of extra tiles
 required
 Therefore 2.75 x 1.72 = 4.73 tiles
 rounded off = 5 tiles. Therefore
 5 tiles required per hip x 2 hips. 10 tiles
 for cutting are required.

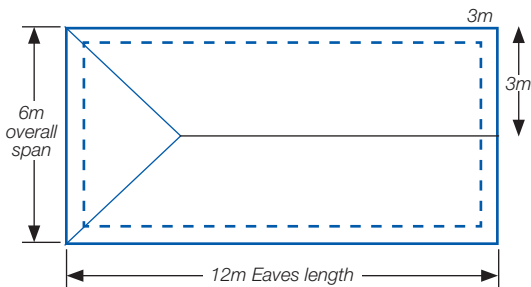
Valleys

Calculate your valleys with the same
 formula as shown for hip and hips rake
 and waste.

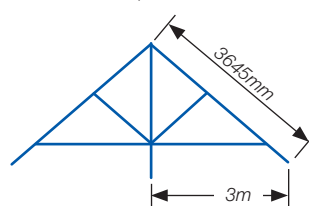
Ridges

Scale off plan and take total length of
 ridge and divide by appropriate ridge
 cover to determine quantity required.

Type A

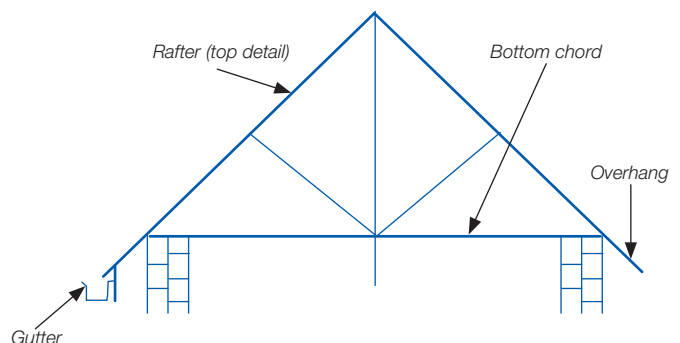
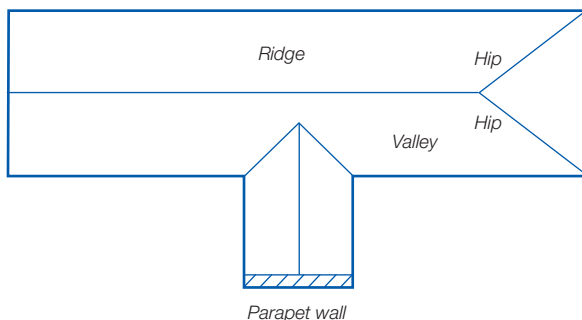
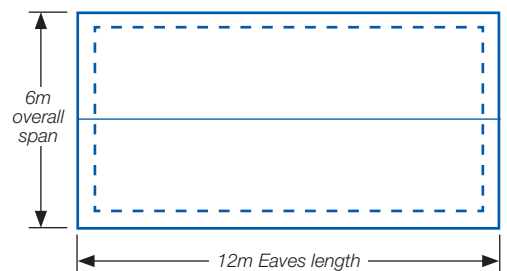


Roof pitch 30°



Type B

Roof pitch 20°



Calculate flat area including overhang
 12 000 x 6 000 = 72m
 therefore 72m' x relevant roof pitch factor
 (Useful Constant Table)
 = total roof area 72m' x 1 064 = 76.60

Now multiply total roof area by the required tiles per m
 i.e. Elite: 76.60 x 1.72 = 131.76 tiles
 therefore 132 tiles required.

Accessories as well as rake cut and waste as per Type "A".
 For accuracy, method "A" is preferred, however for quick
 estimation Type "B" can be used.

**Clients are reminded to contact Harvey Roofing
 Products should they need further estimating
 assistance.**

Re-roofing

Harvey Roofing Products have designed their profiles to the highest technological global standards, ensuring strength, durability, good looks and easy handling. With the tile mass being so much lighter than conventional tiles, in flexibility and manoeuvring, working with our tiles is so much easier, not to mention the time and materials that are saved in the process.

These features make our tiles ideal for re-roofing and being so light there is no need to reinforce the timber structure.

In addition, because the tiles are fitted on top of the existing roof, there is no inconvenience to the occupants. The unique overlapping resistant to the elements and impenetrable to burglars.

Re-roofing with our tiles gives your roof added insulation which will keep your building cooler in summer and warmer in winter. Sound and acoustics levels will also be improved.

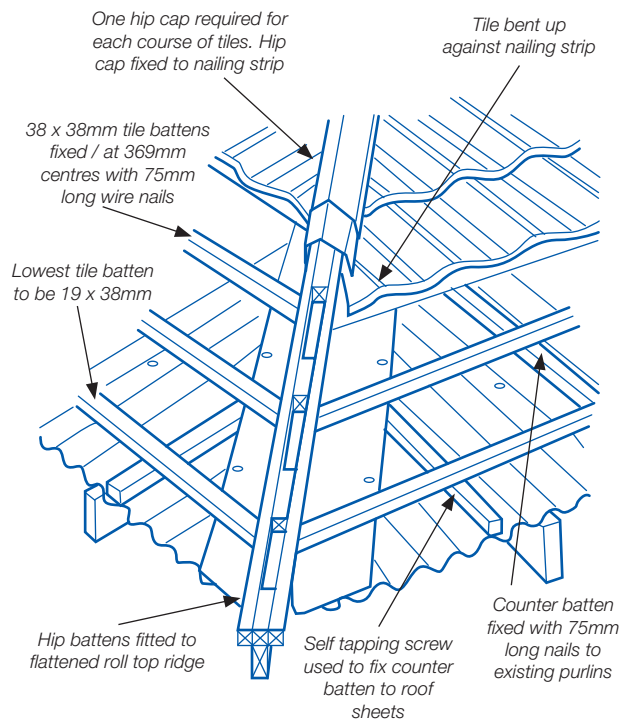
The Harvey Roofing Products re-roofing system is maintenance free, which means you do not have the inconvenience of fixing leaks, replacing broken tiles or repainting every few years. Harvey Roofing Products has a nationwide network of licensed contractors who guarantee their workmanship.

Pitch

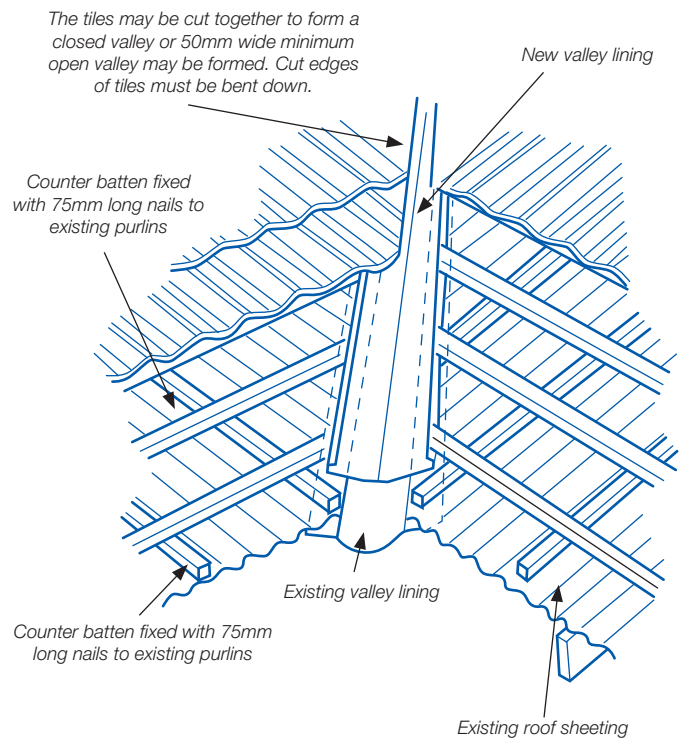
Preparation for laying of the tiles on top of existing corrugated steel roof covering.

1. Counter battens of 38 x 19mm cross section are laid in the flutes of the existing corrugated steel roof sheets from eaves to ridge at maximum centres of 1.1m. These counter-battens are nailed through the roof sheeting to the existing timber purlins with 75mm wire nails.
2. Tiling battens of 38 x 38mm are fixed to the counter-battens at 369mm centres, with 75mm wire nails. The lowest batten is 38 x 19mm.

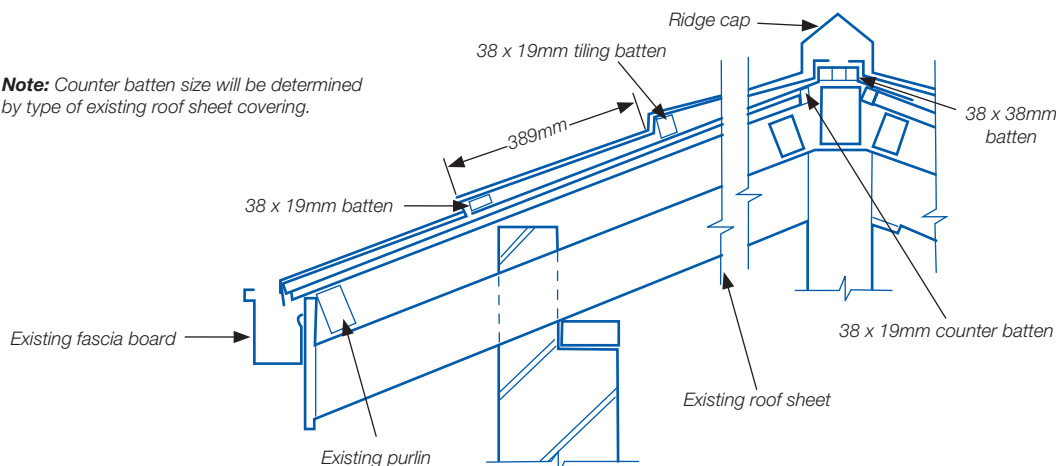
Re-Roof Hip Detail



Re-Roof Valley Detail



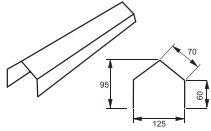
Note: Counter batten size will be determined by type of existing roof sheet covering.



Harvey Steel-based Tile Accessories

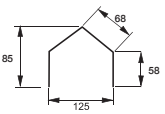


1 Angle Ridge



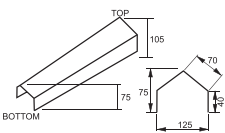
Fixed to double batten at apex
Length: 1720mm (cover 1600mm)
Width: 125mm tapered lengthwise
Height: 95mm
Mass: 2.5kg

2 Angle Ridge End Cap



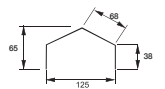
Fixed to end of Angle Ridge
Width: 125mm
Height: 90mm

3 Angle Hip Cap



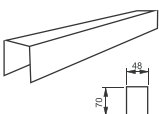
Fixed to double batten at hip battens
Length: 580mm (cover 1 per tile course)
Width: 125mm tapered down to 123mm
Height: 75mm tapered up to 105mm
Mass: 0.8kg

4 Angle Hip End Cap



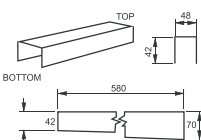
Fixed to end of Angle Hip
Width: 125mm
Height: 70mm

5 Square Ridge (Elite only)



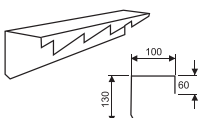
Fixed to double batten at apex
Length: 1720mm (cover 1600mm)
Width: 48mm tapered lengthwise
Height: 70mm
Mass: 1.8kg

6 Square Hip Cap (Elite only)



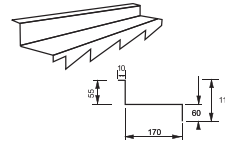
Fixed to single hip batten
Length: 580mm (cover 1 per tile course)
Width: 48mm tapered down to 45mm
Height: 42mm tapered up
Mass: 0.5kg

7 Bargeboard Cover



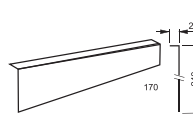
Left and right hand serrated. Fixed to barge boards at gable ends. Sketch shows right handed barge board cover.
Length: 1550mm Height: 130mm
Cover 4 tile courses
Mass: 2.3kg

8 Sidewall Flashing



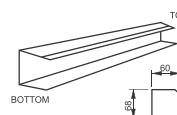
Left and right hand serrated. Sketch shows right handed sidewall.
Length: 1550mm Height: 115mm
Cover 4 tile courses
Width: 170mm Upper Lip: 10mm

9 Cover Flashing

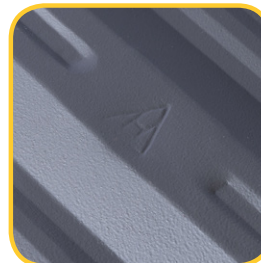


For use at headwall and sidewall flashing as well as for short courses at ridge.
Length: 1720mm Width: 240mm
Upper Lip: 25mm Cover: 1600mm
Mass: 2.5 kg

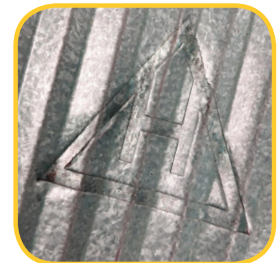
10 Gable Trim (Elite only)



Fixed to gable ends
Length: 1720mm (cover 1600mm)
Width: 60mm
Height: 68mm tapered up
Mass: 1.8kg



Harvey Elite



Harvey Thatch

The Harvey Quality Stamp

Beware of inferior imitations.

We take great care to ensure that every Harveytile is manufactured to the most stringent quality standards. As a division of Africa's leading steel supplier, Macsteel, we have access to the best steel. We prepare and press the Zinc or Alu-Zinc coated steel to the finest tolerances, cover the tile with natural stone coatings and finally achieve the tile with the best appearance.

Once complete, we take care to quality check each tile so as to ensure that it meets our quality standards. Only then do we place our Harvey Quality Stamp on each tile.

This means you can rest assured that if the tile carries the Harveytile Quality Stamp, that it's a Harveytile manufactured to the most exacting standards. Look for the Harveytile Quality Stamp.

"If it doesn't say Harveytile, its not a Harveytile"



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