

FLAT ROOF SKYLIGHTS – FCM/VCM/VCS (“Curb Mounted” Skylights)

Curb detail – suggestion only. (flashing is not supplied with the flat roof skylights)

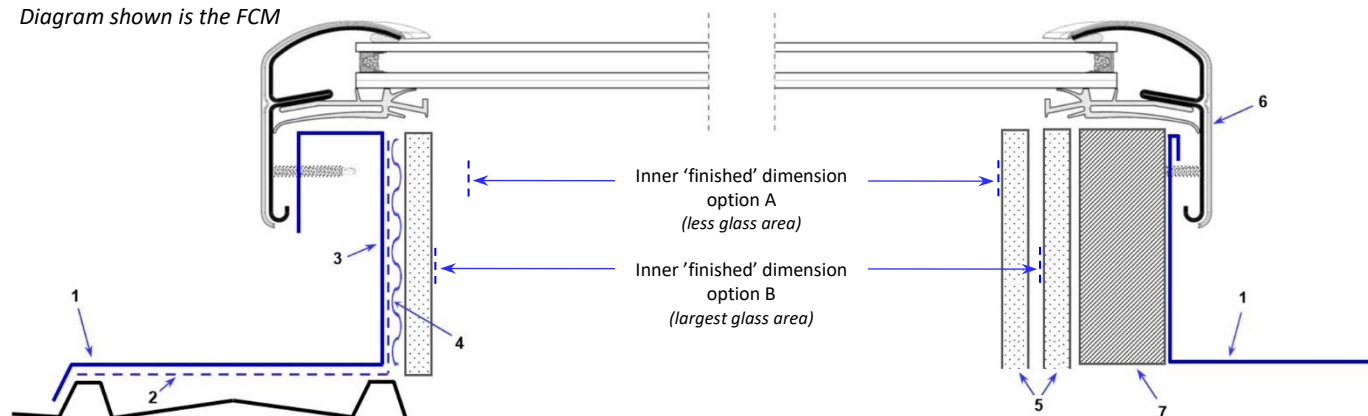
The diagram describes a suggested method of fixing the FCM/VCM/VCS on a curb flashing. As such it is intended to be used **as a guide only**. All flashings must conform to relevant NCC or State/Territory requirements.

Any roof flashing, waterproofing or insulation is to be supplied by the installer/roofer and must be suitable for the type of roofing material.

The installation of the flashing onto the roof remains the responsibility of the installer.

This document does not apply to any other internal and/or external guarantees.

Diagram shown is the FCM



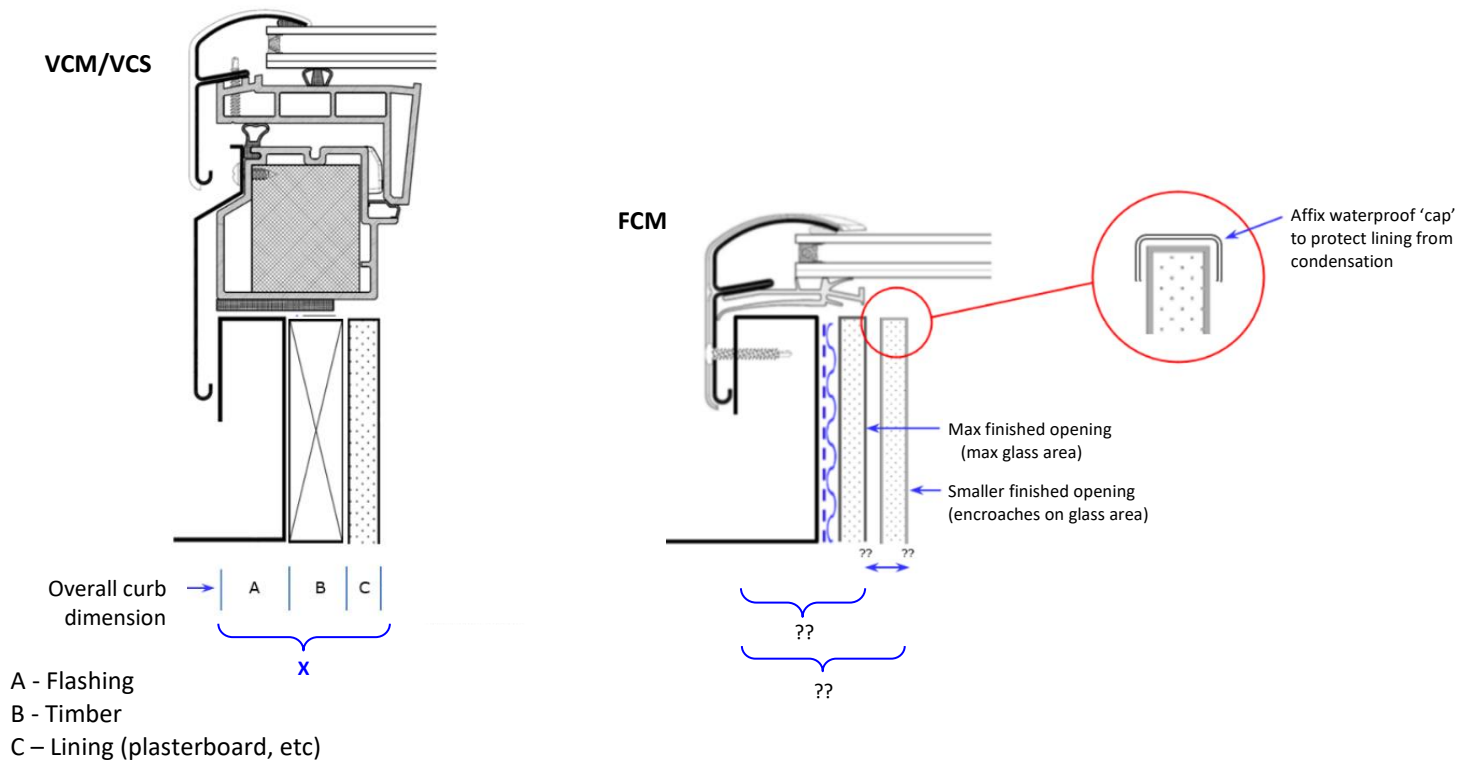
1	Purpose built flashing / curb	Flashing made by installer. Must have ‘turnback’ for water splashback. Must cover min 2 ribs of roofing (or as per building regulations). Height per HB:39 2015 – Installation code for Metal Roofing.
2	Underlay / thermal blanket	Waterproof / thermal barrier – ideally wrapped around the entire curb before flashing is installed.
3	Curb / Upstand	Timber (recommended) or folded flashing. Minimum recommended height 100mm (above roofing material). Must comply with local building regulations. 35mm-50mm wide.
4	Insulation	Optional. Supplied by installer.
5	Internal Lining (eg: plasterboard)	Position of lining will determine the overall glass area. (max glass area vs smaller glass area) Recommend plasterboard does not encroach more than 15mm onto glass area.
6	Skylight frame	Fits over, and secures to, curb.
7	Timber Curb	Offers more secure installation with better thermal properties. For cyclonic regions timber curbs are recommended. Folded flashings as curbs are not suitable.

BUILDING THE CURB - CURB THICKNESS AND FINISHED OPENING

The materials and dimensions for the curb are up to the individual installer. When building the curb, the finished opening or aperture is not yet determined - this will be determined after the curb is built, taking into account the materials used and thickness of materials.

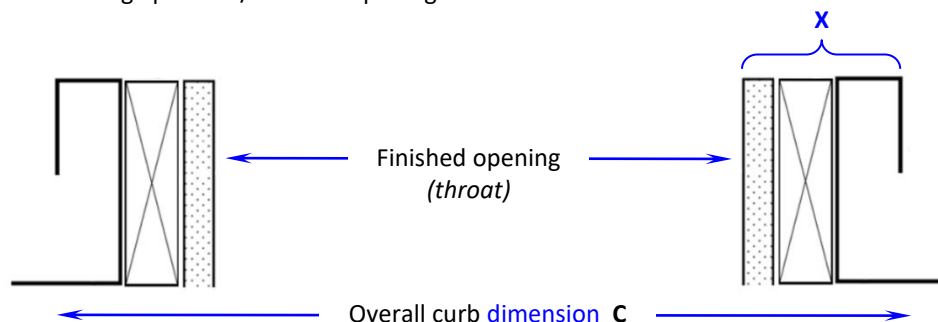
Note: if installing blinds, finished opening must be not less than VELUX recommended dimensions **A.** (next page)

To determine the finished opening, the overall *curb-dimension-less-curb-thicknesses* must first be calculated.
(incl internal lining eg: plasterboard)



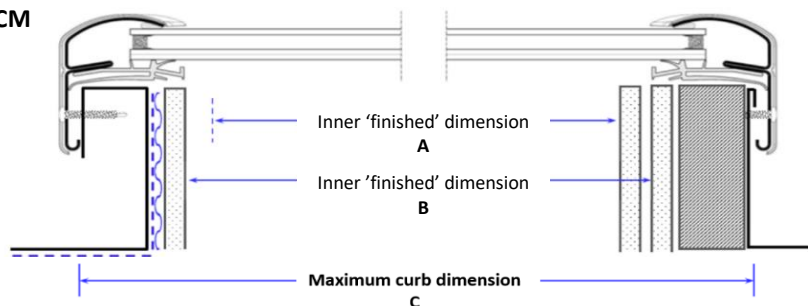
Overall curb thickness (X) = Flashing + Curb + Lining/insulation

Determining aperture / finished opening



Finished opening dimension = overall curb dimension **minus** curb thicknesses (C - (X+X))

Note: Timber curbs are recommended for cyclonic regions – folded flashings as curbs are not suitable.

BUILDING THE CURB (cont'd ...)
FCM


**** Inner finished dimension A must not be any smaller or blind will not fit**

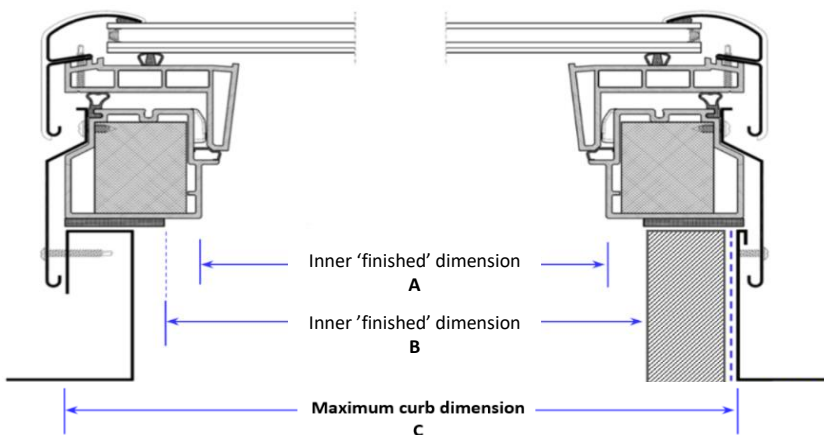
FCM	Inner finished dimension 'A' (smaller glass area) **	
1430	335	745
2222	540	540
2230	540	745
2234	540	845
2246	540	1150
2270 ^	540	1760
3030	745	745
3046	745	1150
3055	745	1380
3072 ^	745	1810
3434	845	845
3446	845	1150
4646	1150	1150
4672 ^	1150	1810

FCM	Inner finished dimension 'B' (maximum glass area)	
1430	368	775
2222	572	572
2230	572	775
2234	572	876
2246	572	1181
2270 ^	572	1792
3030	775	775
3046	775	1181
3055	775	1410
3072 ^	775	1842
3434	876	876
3446	876	1181
4646	1181	1181
4672 ^	1181	1842

FCM	MAXIMUM Curb dimension 'C'	
1430	460	870
2222	665	665
2230	665	870
2234	665	970
2246	665	1275
2270 ^	665	1885
3030	870	870
3046	870	1275
3055	870	1505
3072 ^	870	1935
3434	970	970
3446	970	1275
4646	1275	1275
4672 ^	1275	1935

All dimensions in mm.

^ Not recommended for landscape orientation.

VCM/VCS


Inner finished dimension A must not be any smaller or blind/flyscreen will not fit

VCM/VCS	Inner finished dimension 'A' #	
	'w'	'h'
2222	540	540
2234	540	845
2246	540	1150
3030	745	745
3046	745	1150
3434	845	845
4622	1150	540
4646	1150	1150

VCM/VCS	Inner finished dimension 'B'	
	'w'	'h'
2222	572	572
2234	572	876
2246	572	1181
3030	775	775
3046	775	1181
3434	876	876
4622	1181	572
4646	1181	1181

VCM/VCS	MAXIMUM Curb dimension 'C'	
	'w'	'h'
2222	665	665
2234	665	970
2246	665	1275
3030	870	870
3046	870	1275
3434	970	970
4622	1275	665
4646	1275	1275

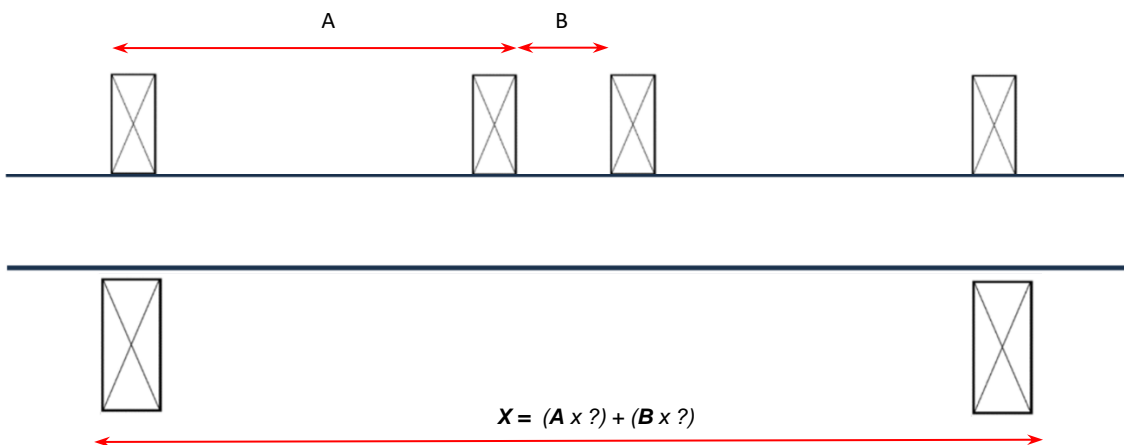
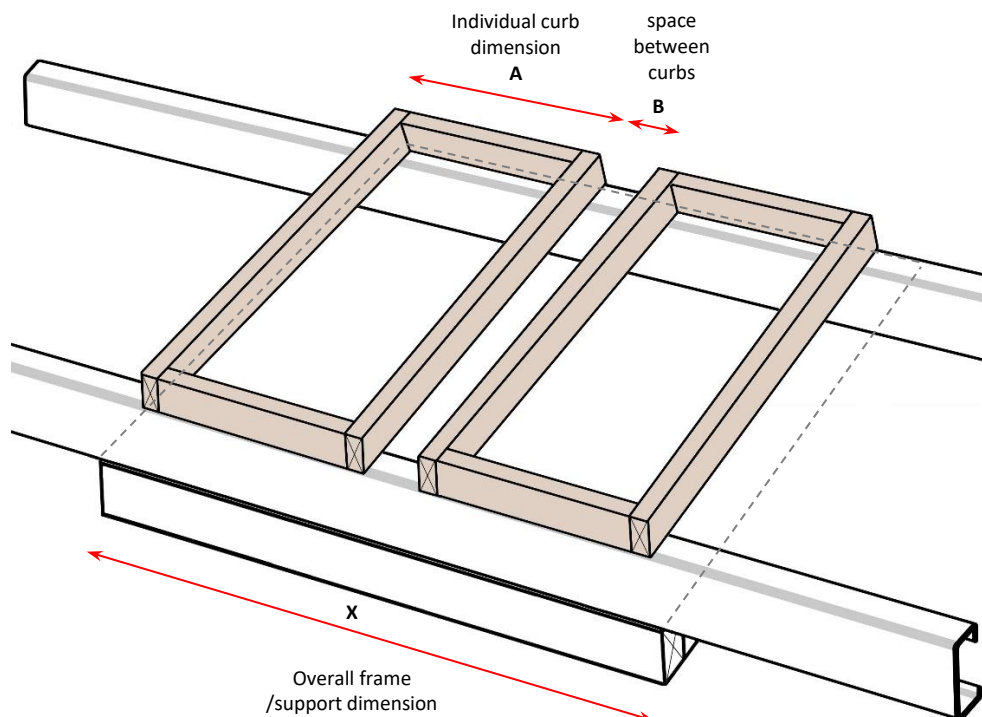
All dimensions in mm. VCM/VCS orientation cannot be changed.

MULTIPLE SKYLIGHTS

Overall Curb dimensions and inner support dimension are dependent on the following:

- Total number of skylights
- Thickness of materials
- Space between skylights (recommended minimum = 150mm)

IMPORTANT: Multiple curbs can involve substantial spans across the roof – always consult a structural expert before modifying any roof structure.



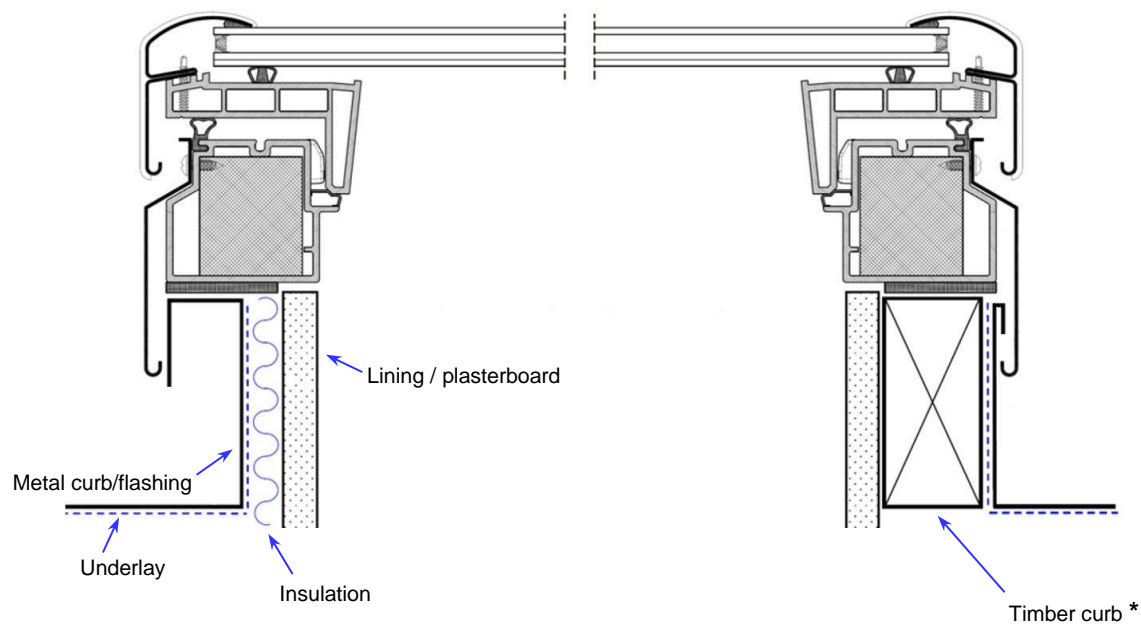
INSULATION

Whenever you install a Flat Roof Skylight, VELUX recommends you insulate the base and/or flashing for maximum thermal efficiency. (VELUX does not supply insulation)

With an appropriate insulation and lining, a skylight can achieve very high thermal ratings.

The addition of a timber curb timer will increase the overall thermal rating of the installation. However, if you are using a timber curb, insulation may not be necessary. Consult with relevant authorities for thermal requirements.

VELUX always recommends using an underlay with any type of flashing.



** Timber curbs are recommended for cyclonic regions – folded flashings as curbs are not suitable.*

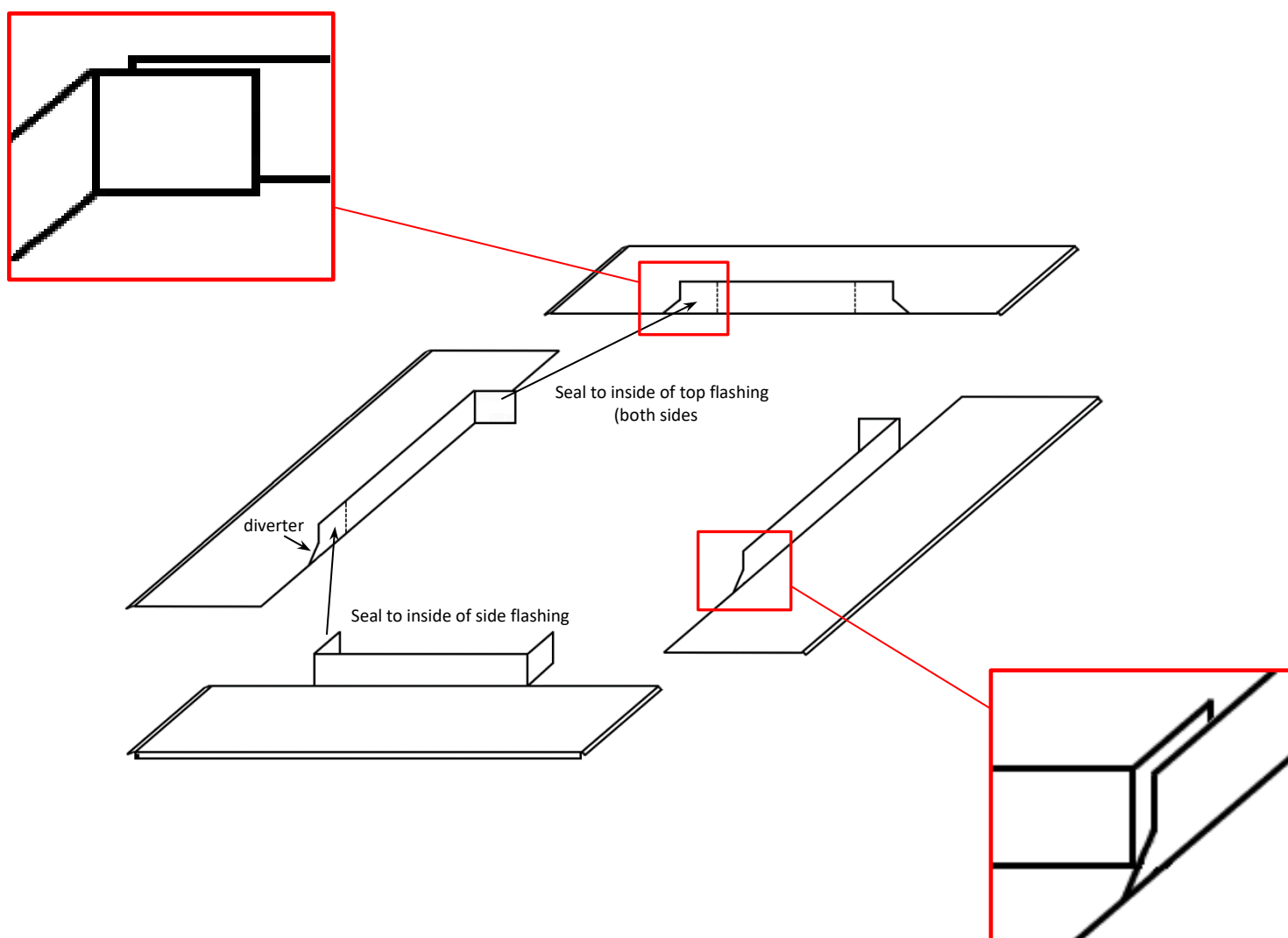
FLASHING

FLASHING FOR CURB

The flashing is typically made in sections and assembled around the timber curb - or as the curb if timber is not used.

Water diverters are recommended. Flashing must always overlap from the *top down*: side pieces overlap the bottom section; top section overlaps the sides. Silicone between joints/overlaps and screw or rivet as needed.

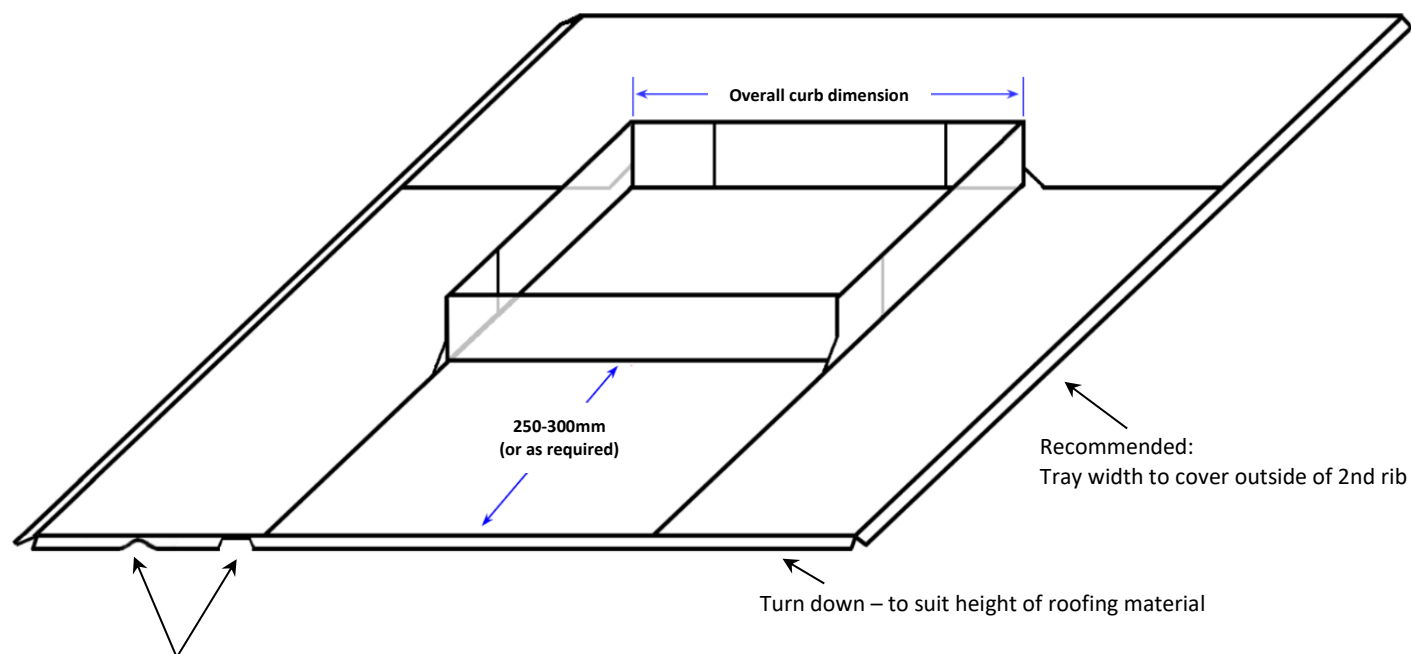
These diagrams are used as a guide only. All flashings must conform to relevant NCC or State/Territory requirements.



Flashing – assembled

The top tray of the base can be installed:

- A - Above the roofing - preferably all the way to the ridge capping (referred to as 'dry pan' flashing)
- B - Under the roofing. The top of the base can be made as a flat panel to 'cut' into/under the metal roofing.



Cut-outs should suit roofing profile – Kliplok, Trimdek, Spandeck, etc

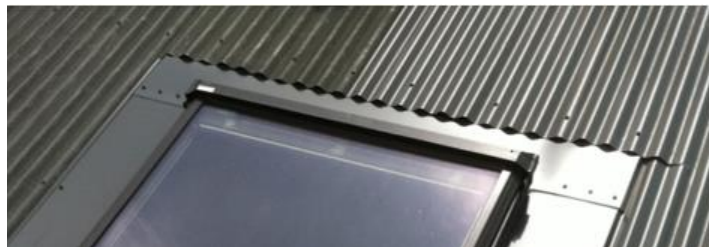
Option A:

Flashing up to (and under) ridge cap
(‘dry pan’ flashing)



Option B:

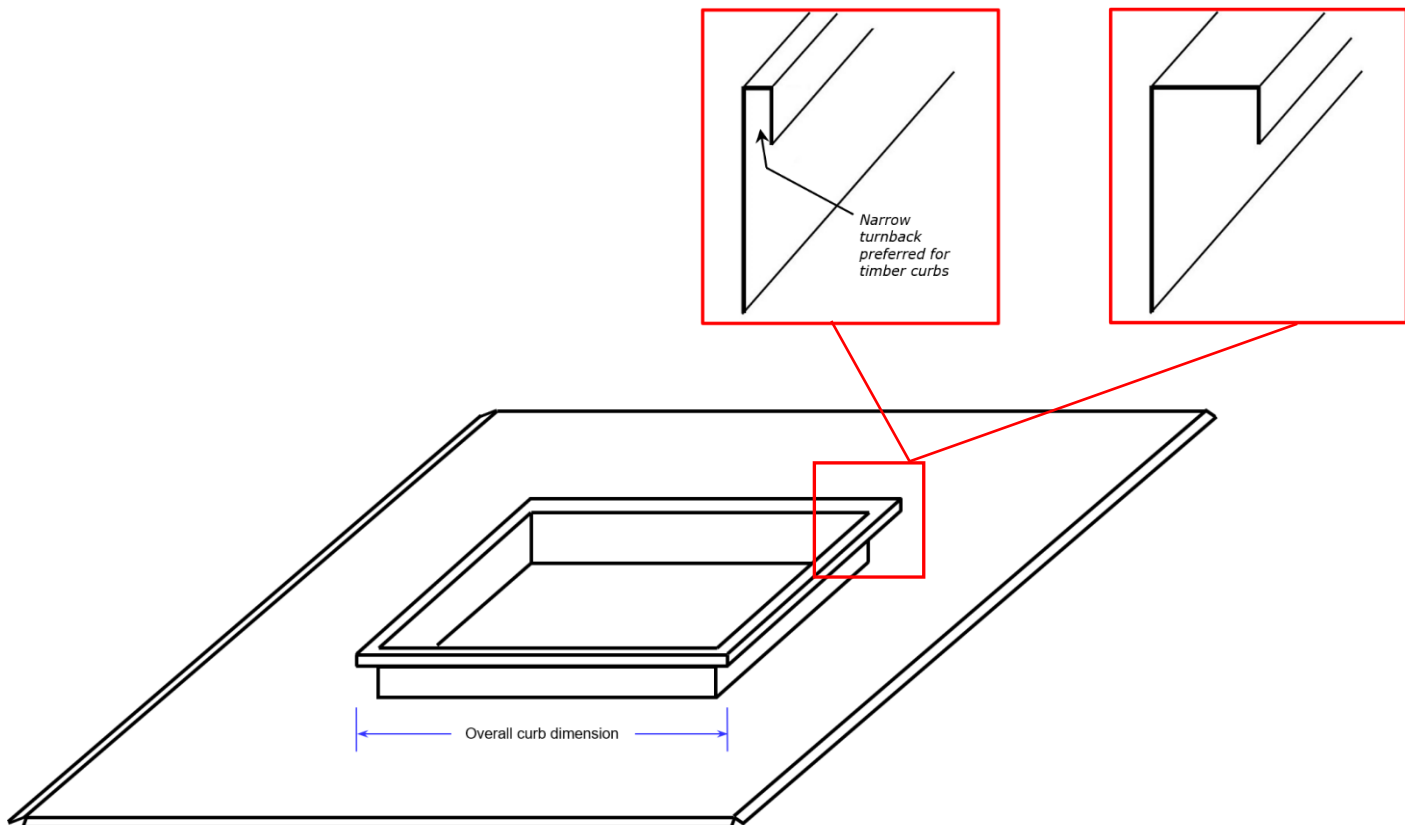
Flashing cut ‘into’ the roofing
(not recommended for low pitches)



Alternative design for the flashing *

An alternative design of the base utilises a “turndown” to deflect water splashback.

Whether the upstand is timber or metal, a splashback turndown on the flashing is recommended.



These flashing bases are for illustration purposes ONLY. The ‘apron’ (lower section) for each base must be made to suit the relevant roofing material.

Note: for a tiled roof, a flexible bottom apron is recommended. The sides and top of the base should sit under the tiles and the flexible apron should sit **above** the row of tiles immediately below the skylight.

** folded flashings as curbs not recommended for cyclonic regions*

Purpose-built flashing with top tray above roofing material (flushed under the ridge capping)



Purpose-built flashing with the top tray under the roofing material



Example of large, single opening for multiple skylights.

