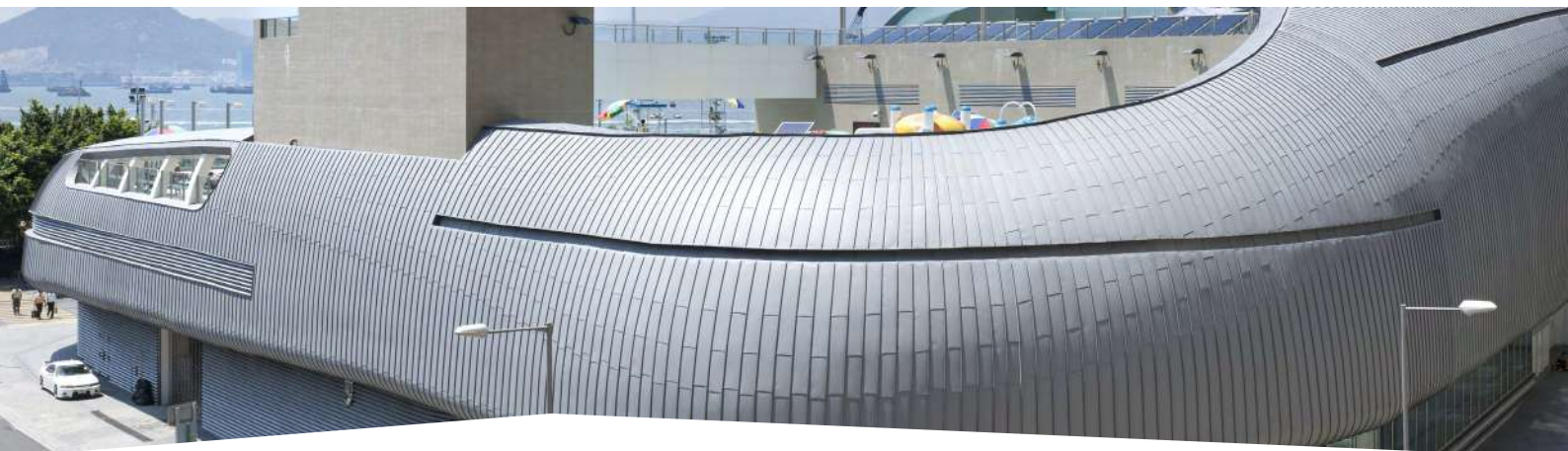




ROOFING &  
FACADES

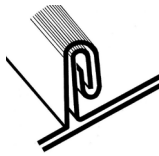
VMZINC® Standing seam



VM BUILDINGSOLUTIONS

The VMZINC standing seam technique is a popular traditional technique, the system is also known as a low seam-lock system.

The standing seam system uses a single lock seam and double lock seam, usually single lock seam is used for facades and double lock seam is used for roofs.



Double lock seam



Single lock seam

- Area of Application**
- Suitable for pitches: minimum pitch 3° (5%)
  - Continuous support or substrate
  - All shapes of roofs and facades: flat, curved, sphere, conical, domes

- Characteristics**
- Popular traditional cladding technique
  - Weather-tight cladding system
  - The low height of the seams (25mm) contributes to a light and modern look of roof and façade
  - Offers great design flexibility
  - Fast and easy to install
  - Suitable for the harsh climate environment, such as strong winds, heavy rain and snowfall

**Technical specifications**

Aspect	QUARTZ-ZINC® ANTHRA-ZINC® PIGMENTO® AZENGAR® NATURAL-ZINC BY VMZINC®
Height of the seam	H = 25mm
Panel Width	430mm
Thickness	0.7mm, 0.8mm
Panel Length	Roof, Max. 15m Façade, Max. 4m
Weight of panel	About 6kg/m <sup>2</sup>

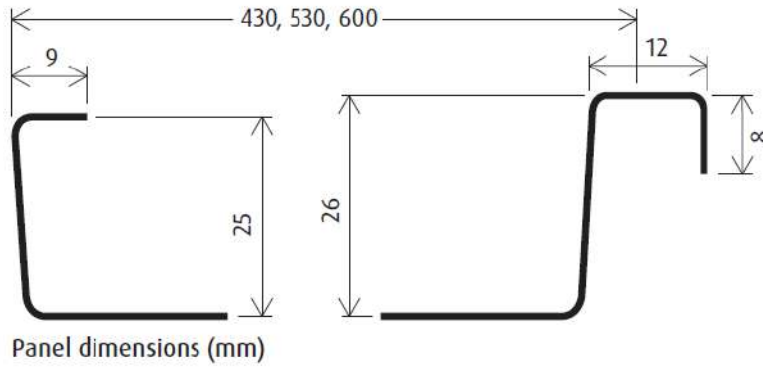
**Standing seam panel length and slope** The maximum length of the standing seam panels depends on the slope of the roof as illustrated in below table and chart:

Slope	Maximum length of the panel
3° - 12°	15 m
12° - 30°	13 m
30° - 60°	10 m
60° - 90°*	4 m

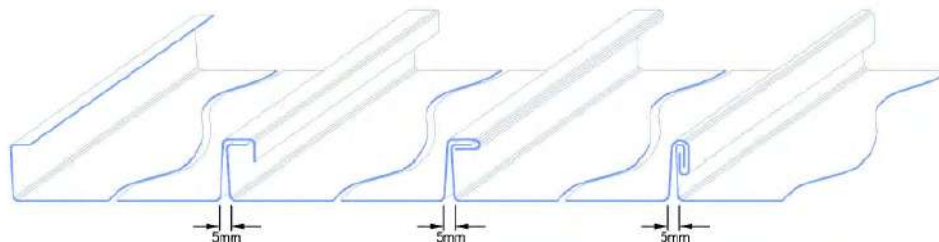
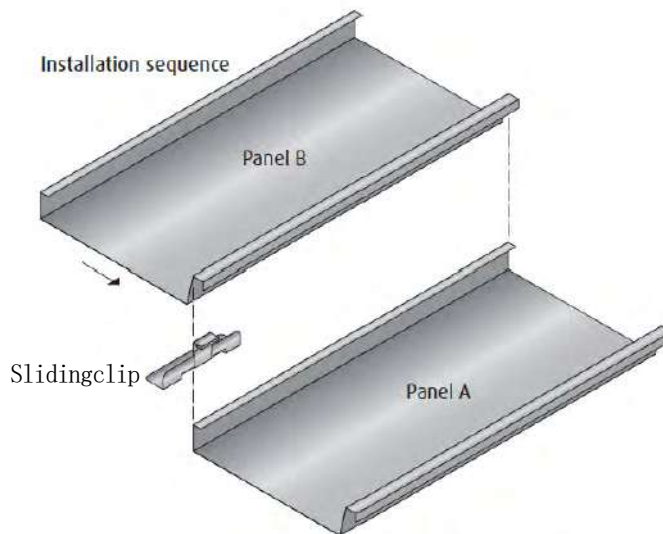
# Standing seam system installation

Standing seam system is a roofing and cladding system composed of multiple build-ups, each build-up needs to be correctly installed.

Panel shape and dimensions



Installation sequence



Lock

Single lock

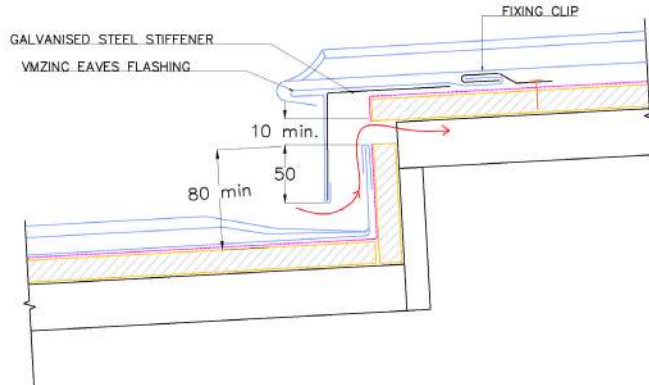
Double lock



**Transversal joints** When the length of the roof slope exceeds the maximum recommended length, it is necessary to join the sheets using transversal joints. Several techniques exist depending on the pitch of the roof.

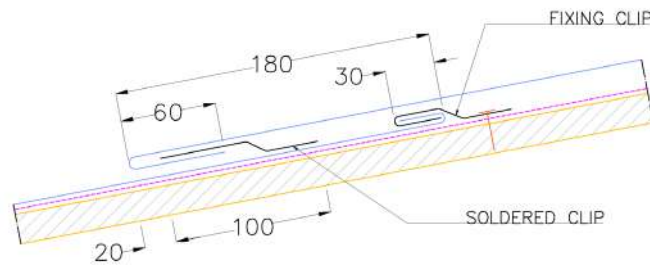
a) Step: for pitches of 3°(5%) or more:

The step height will be a minimum of 80 mm for standing seam.



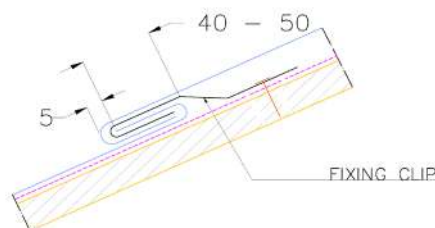
b) Double welt: for pitches of 8°(15%) or more:

The double welt can be used in the standing seam technique for pitches of 15% and above. The minimum length of the overlap is 200 mm with a securing clip at the top. The overlap should be increased according to climatic conditions such as wind and rain.



c) Single welt: for pitches > 25°(47%) or more:

The single welt has an overlap of 50 mm and can be adopted for pitches greater than 47% (25°) in the standing seam technique.

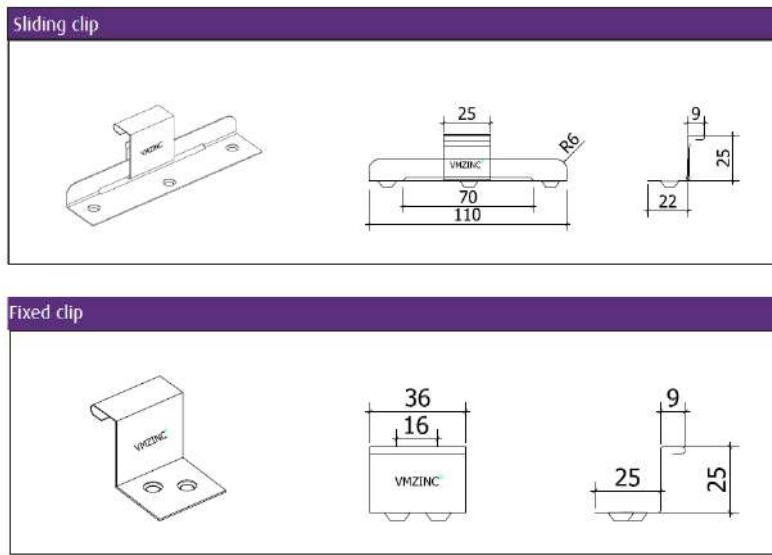


**Fixing system method** VMZINC standing seam panels are fixed on the support structure or substrate with VMZINC clips. The clips have a dual function: the first one is to ensure the mechanical resistance of the entire roof or façade, and the second one is to allow free expansion of the zinc metal.

VMZINC clips are made of 304 stainless steel. The thickness of the fixing clip is 0.5mm. The sliding clips have a moving component, which is 0.4mm thick and a 70mm long slot to allow free movement of the panel when it is under expansion and contraction. Each clip must resist a pull-out force of 50daN. It is recommended that screws be used to secure the clips with three being used per sliding clip.



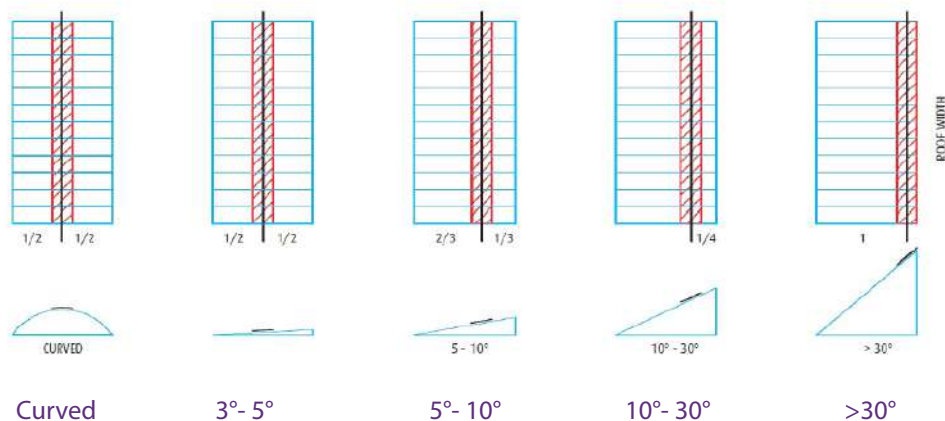
## Stainless steel clips



**Clip spacing** For standing seam system, the correct positioning of the clips (fixed or sliding clips) is fundamental for effective expansion control. The number of clips required will depend upon anticipated wind loads. Towards the edge or corners of the roof, where wind loads are increased, it is necessary to increase the number of clips.

- Centre to Centre distance between clips**
- 330mm on the main part of the roof.
  - 165 mm at the perimeter on a distance equal to 1/8 of the projected roof.

**Fixed clip positions** All standing seam panels require a minimum of 5 fixed clips. Refer to the below chart to determine the location of the fixing clips on your project.



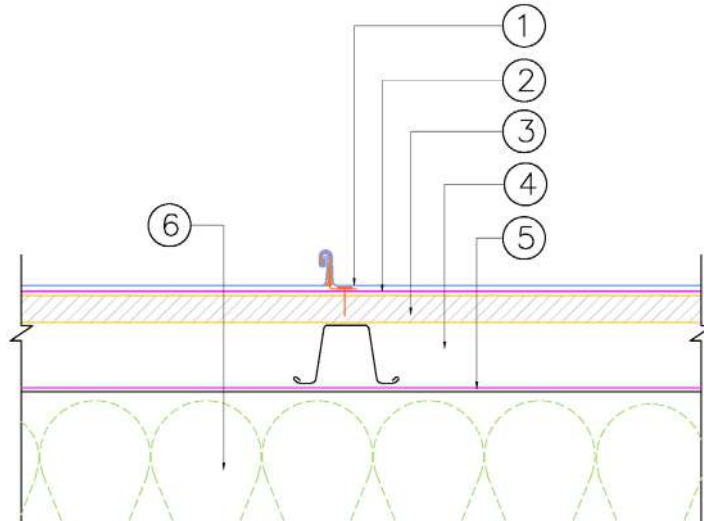
# Typical VMZINC standing seam system build-ups

Standing seam panels must be installed on a support system or substrate. The support system must be rigid and continuous for all parts where standing seam panels are installed. The support must also meet loading requirements in conformity with a minimum pull-out strength of 50daN for each fixing clip, provided that the entire support transmit the cumulated load of all fixing clips to the structure.



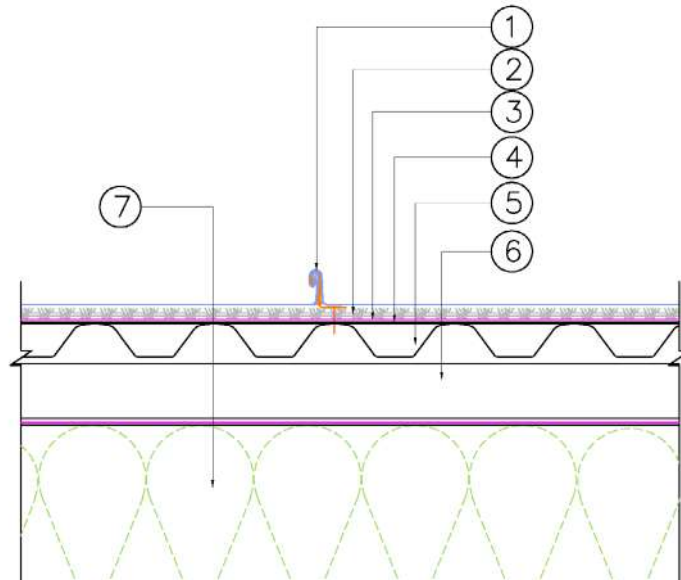


Typical system build-up of VMZINC standing seam roofing on timber support:



Build up from outside:

1. VMZINC PLUS Double Lock Standing Seam in 0.70mm
2. Breathable Waterproofing Membrane
3. 19mm Plywood Sheeting
4. 40mm Ventilation Cavity
5. Breathable Waterproofing Membrane
6. Main Structure (by others)

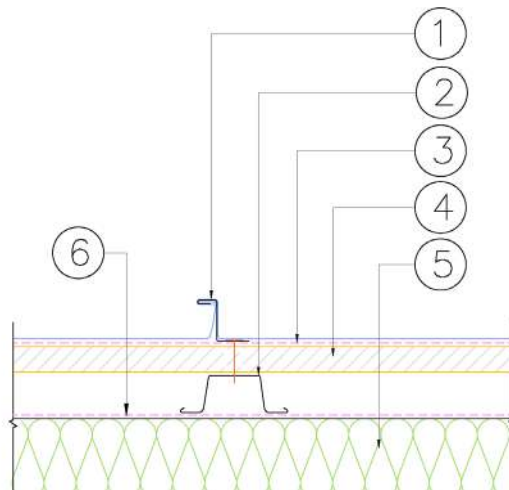


Build up from outside:

1. VMZINC PLUS Double Lock Standing Seam in 0.70mm
2. Drainage Matt (Hairy Chest membrane)
3. Breathable Waterproofing Membrane
4. Metal Strips 330mm apart (for fixing clips)
5. Metal Support (Trapezoidal metal profile sheet) minimum 0.48mm BMT
6. 40mm Ventilation Cavity
7. Breathable Waterproofing Membrane
8. Main Structure (by others)



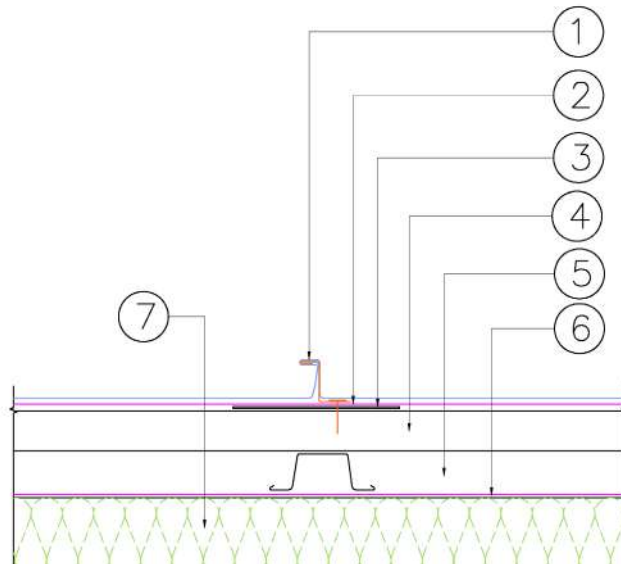
Typical system build-up of VMZINC standing seam cladding on timber support:



Build up from outside:

1. VMZINC PLUS Single Lock Standing Seam in 0.70mm
2. Breathable Waterproofing Membrane
3. 15mm Plywood Sheeting
4. 20mm Ventilation Cavity
5. Breathable Waterproofing Membrane
6. Main Structure (by others)

Typical system build-up of VMZINC standing seam cladding on a metal support:



Build up from outside:

1. VMZINC PLUS Single Lock Standing Seam in 0.70mm
2. Breathable Waterproofing Membrane
3. Metal Strips 330mm apart (for fixing clips)
4. Metal Support (Trapezoidal metal profile sheet) minimum 0.48mm BMT
5. 20mm Ventilation Cavity
6. Breathable Waterproofing Membrane
7. Main Structure (by others)

