



Roof Underlay Installation Instructions

High performance, fire retardant*,
self supporting and highly breathable



MASONS
Designed Smart, Built Tough.

mpb.co.nz 0800 522 533



**STRONG WOVEN
MULTI LAYER SUBSTRATE**



**VERY HIGH VAPOUR
PERMEABILITY**



SELF SUPPORTING

Our roof underlays are premium synthetic, strong, self supporting, fire retardant*, absorbant and highly breathable. They assist in the control of moisture and water vapour.

Available as:
VHP **Maxi**, VHP **Ultra**, VHP **Strong**, and VHP **Value**

* VHP **Value** is not fire retardant



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Condensation Considerations

In some region's condensation risks are higher, such as in areas of cold or high humidity.

Extra care needs to be taken in specifying the correct design and installation practices, as well as building in ventilation systems to prevent excessive condensation and moisture in the roof spaces.

Always refer to the MRM Code of Practice for the latest best practise in design and installation details. See MRM Code of Practice v3.0 9.4 – Ventilation.

Consider the use of Masons passive roof ventilation system to remove the moisture that leads to condensation. Details may be found on Masons website mpb.co.nz

FACTORS WHICH INFLUENCE EXCESSIVE CONDENSATION FORMING IN ROOFING SYSTEMS

- Humid, and/or cold climatic regions
- Warm/skillion roof construction (require particular attention in design and construction)
- Low roof cavity air volume and restricted air movement



- Lack of a vapour control layer if applicable
- Low pitched roof or bulk insulation
- Penetrations in ceiling or warm air entering the roof space
- Activities within the building which create high moisture loading
- High levels of construction moisture such as concrete slab curing

These factors are beyond the control of Masons



General Installation Instructions

To be read in conjunction with The MRM COP version 3.0 and NZBC E2/AS1. All installation to be supervised by suitably qualified LPB installer.

- Masons underlays are compatible with metal tile and profiled metal roof cladding as well as masonry tile roof cladding.
- For roof pitches greater than 10° all Masons **Roof Underlay** may be run vertically or horizontally without support.**
- All Masons Roof Underlay should be supported if run vertically below 10°. Minimum roof pitch 3°.
- Ensure rolls are not damaged and are stored in clean, dry conditions out of sunlight.
- Will provide temporary weather protection during construction (21 days) although same day coverage is strongly recommended.
- May be installed in rain but take care in windy conditions due to large sail effect.
- May be run to any length. Has a 150mm lap line.
- Can be used on roofs up to and including NZS 3604 **Extra High** wind zones.
- Unaffected by LOSP treated timber.

For Roof pitches 10° or greater, Masons **VHP Roof Underlays may be run vertically or horizontally without support. On roof pitches below 10° Masons **VHP Roof Underlays**, may be run horizontally without support. If run vertically it must be supported. Minimum roof pitch 3°.



Residential Long-Run Metal Roofing / Vertical Or Horizontal Installation Method

Masons VHP Roof Underlays are designed to be resistant to UV light for a limited period during construction. They are not designed for indefinite exposure to UV light even at low levels. They should only be used in fully lined buildings or enclosed spaces such as roof attics. They are not suitable to be used in unlined buildings.

Underlays are a condensation control layer. Structures such as canopies, lean-to's, unlined soffits, open sided sheds, and other agricultural buildings with large openings have enough ventilation through natural air movement and do not require an absorbent underlay to help control condensation. Masons VHP Roof Underlay must not be used in these type of structures.

Wooden Construction

Masons recommends that underlay be laid horizontally. However, it may be laid vertically where roof pitches are 8° or greater. Horizontal underlay must be laid from the bottom up, so the upper layers overlap the lower layers. E2/AS1 requires 150mm minimum laps in all situations.

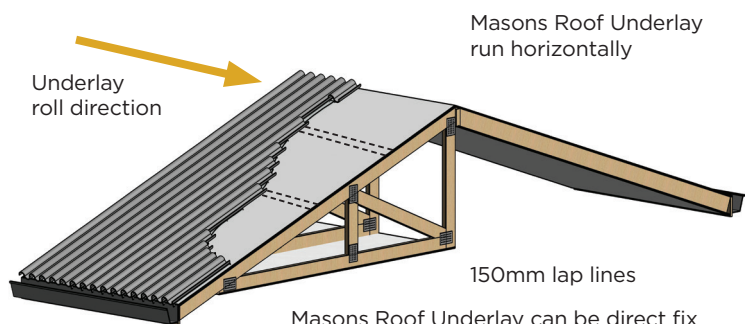
All cladding to be fixed per profiled metal cladding manufactures recommendations.

1. Fix underlay using stainless steel 8-12mm staples or 20mm flat head clouts or appropriate proprietary fastenings at 300mm maximum centres.
2. Between 3° and 5° pitched roofs suitable safety mesh 300mm x 150m or similar or hexagonal netting 50mm or 75mm, and/or Masons Insulation Strapping or Wrap Strap. Fix horizontally at 300mm centres.
3. If required to achieve a lap seal (refer to NZ Metal Roofing Code of Practice 4.3.8 and 4.3.9), use Masons UNI Seam Tape or 40Below Platinum Flashing Tape.
4. Masons Roof Underlay maybe unwound to the full length from the gutter to the ridge. However, when ventilation at the ridge is required the underlay should be finished at the ridge purlin to allow a free air movement.

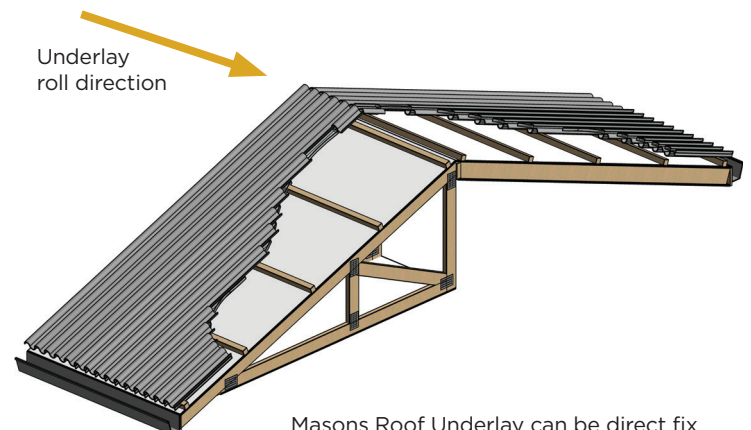
Roof Pitch	Span	Masons VHP Roof Underlay Support Required	
		Horizontally Installed	Vertically Installed
$\geq 10^\circ$	$> 1200\text{mm}$	Yes	Yes
$\geq 10^\circ$	$\leq 1200\text{mm}$	No	No
$< 10^\circ$ (Min 3°)	$> 1200\text{mm}$	Yes	Yes
$< 10^\circ$ (Min 3°)	$\leq 1200\text{mm}$	No	Yes

5. Flue penetrations must have a minimum distance of 50mm from the underlay See NZ Metal Roof and Wall Cladding Code of Practice 4.3.8.
6. Masons Roof Underlay must be free of rips and holes fit tightly and be lap taped around all penetrations, (except flue penetrations) to assist with drainage and moisture.
7. Maximum drape 25mm.
 - Must be laid firmly and taut/tight without creases. Laps vertical or horizontal to be a minimum of 150mm lap.
 - Masons VHP roof underlays will provide temporary weather protection during construction of a maximum of 21 days VHP. Same day coverage strongly recommended. DO NOT exceed this exposure limit.
 - When support is required, Masons recommends a premium proprietary safety mesh, hexagonal netting or Masons Stud or Insulation Strap is used.
 - Under dark roof cladding colours (low LRV) use of supporting mesh is recommended.

CORRUGATED ROOFING



Masons Roof Underlay can be direct fix or cavity fix and must be installed in a manner that prevents ponding of water and span no more than 1200mm



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Long-Run Metal Roofing / Vertical Or Horizontal Installation Method

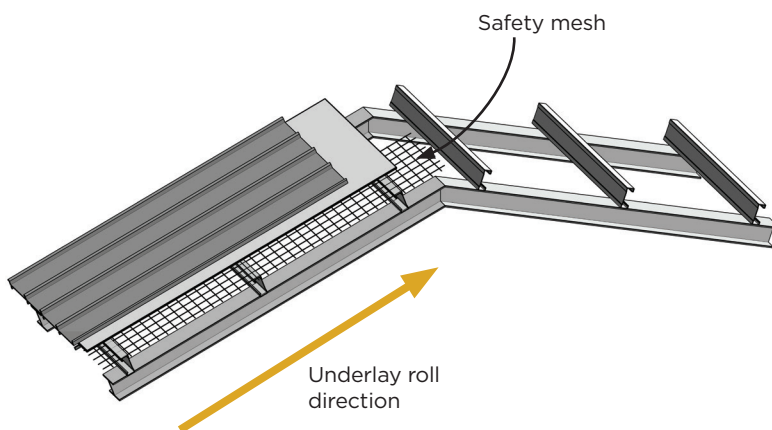
Steel Construction

- Masons VHP Roof Underlay may be direct fixed or cavity fixed and must be installed in a manner that prevents ponding of water and spans no more than 1200mm.
- Masons VHP Underlay may be run vertically or horizontally. See table regarding support.
- Masons recommends that underlay be laid horizontally. However, it may be laid vertically where roof pitches are 8° or greater. Horizontal underlay must be laid from the bottom up, so the upper layers overlap the lower layers. E2/AS1 requires 150 mm minimum laps in all situations.
- When support is required, Masons recommends a premium proprietary safety mesh, hexagonal netting or Masons Stud or Insulation Strap is used.
- Must be laid firmly and taut/tight without creases. Laps vertical or horizontal to be a minimum of 150mm lap.
- Masons VHP roof underlays will provide temporary weather protection during construction of a maximum of 21 days VHP. Same day coverage strongly recommended. DO NOT exceed this exposure limit.
- Masons recommends a premium proprietary safety mesh, hexagonal netting or Masons Stud or Insulation Strap is used.
- Under dark roof cladding colours (low LRV) use of supporting mesh is recommended.
- Fix Masons VHP roof underlay with self-drilling screws or propriety fasteners at maximum spacing of 300mm. Refer to the Metal Roofing association code of practice (COP) version

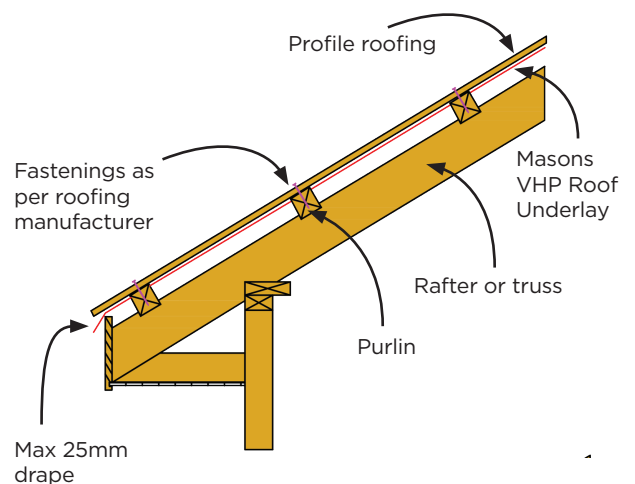
Horizontal Fixing

1. Masons **VHP Roof Underlay** upper sheet lapped over lower sheets (shiplap) to ensure water is shed to the outer face.
2. Ensure there is adequate fastening at each purlin to prevent downward creep. When fixing horizontally ensure that a 150mm lap is achieved, If purlin spacings exceed 1100mm do not fix horizontally.

LONG-RUN METAL ROOFING Steel Construction



LONG-RUN METAL ROOFING Wooden Construction





Tile Installation Method

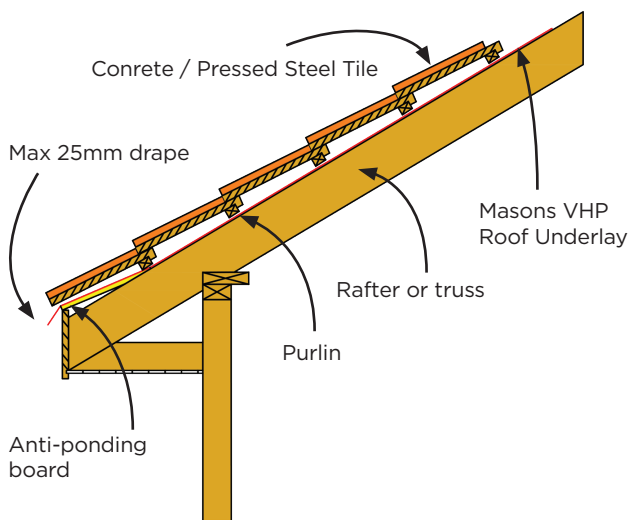
Horizontal Fixing

1. Masons **VHP Roof Underlay** upper sheet lapped over lower sheets (shiplap) to ensure water is shed to the outer face.
2. Ensure there is adequate fastening at each purlin to prevent downward creep. When fixing horizontally ensure that a 150mm lap is achieved. If purlin spacings exceed 1100mm do not fix horizontally.

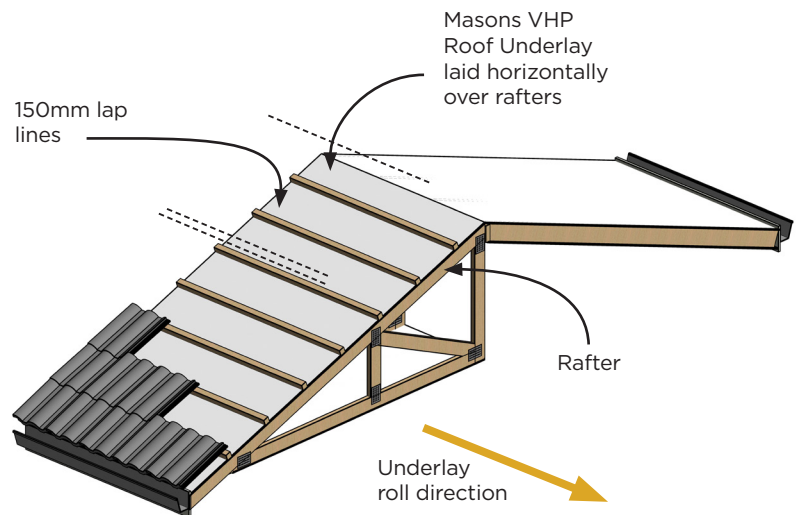
Concrete or Metal Tile Roofing

1. Lay Masons **VHP Roof Underlay** over rafters prior to fixing the tile battens. The maximum span between rafters is 1200mm. Masonry tile roofs with pitches less than 17° must have anti-ponding boards in accordance with E2/AS1 Paragraph 8.2.5.
2. Masons **VHP Roof Underlay** may be laid over the top of the anti-ponding boards and should be draped into the gutter by no more than 25mm. Where Masons **VHP Roof Underlays** overlap occurs under Tile Battens, minimum overlap may be reduced to 75mm.
3. Drape should be 25mm or less.

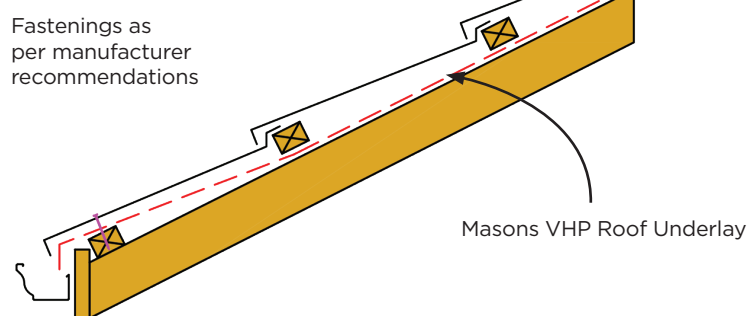
CONCRETE / METAL TILE ROOFING



TILE ROOFING



METAL TILE INSTALLATION



Masons have a range of adhesive flashing tapes and roof accessories such as plastic support strapping and Masons Roof Boots external pipe flashings to compliment your roof project. To learn more visit mpb.co.nz

Check out Masons Passive Roof Ventilation System