



Reduce the risk of internal moisture

Mitigate the risk of mould growth in your home

Internal moisture

Recent research shows that internal moisture & condensation in the roof space is a widespread and growing problem across New Zealand.

Weather tightness requirements have been specified for many decades without the required ventilation. The lack of passive ventilation causes condensation to occur. From this, mould is easily formed which is a major contributor to the alarmingly high level of asthma and respiratory diseases experienced in New Zealand. Passive ventilation is a method of allowing continuous airflow into a building above the thermal envelope. This eliminates internal moisture from the roof cavity and prevents condensation and mould from forming.



Mitigate the risk of mould growth in your home

Increased focus on weathertightness, heating and insulation has led to modern New Zealand homes designed without calculated, continuous, unimpeded passive roof ventilation. A home designed without passive roof ventilation runs the risk of suffering from internal moisture issues which lead to damp & mould, structural decay of building products and compromised air quality.

Reasons for failures

- Air tight roof cavities
- Occupancy behaviour
- Temperature Variations
- Moist building products
- Winter builds
- Mechanical systems terminating in roof cavity



What is mould, and why should I worry?

Two species of mould commonly found in roof cavities are **Cladosporium** and **Penicillium**. Both will establish on building products such as timber or roofing underlays with a moisture level between 15 and 20% often in response to slightly elevated moisture levels such as condensation.

Penicillium species – may contribute to high spore levels in the air resulting in allergenic reactions in sensitive people, and many of the species may cause infections in immunocompromised individuals.

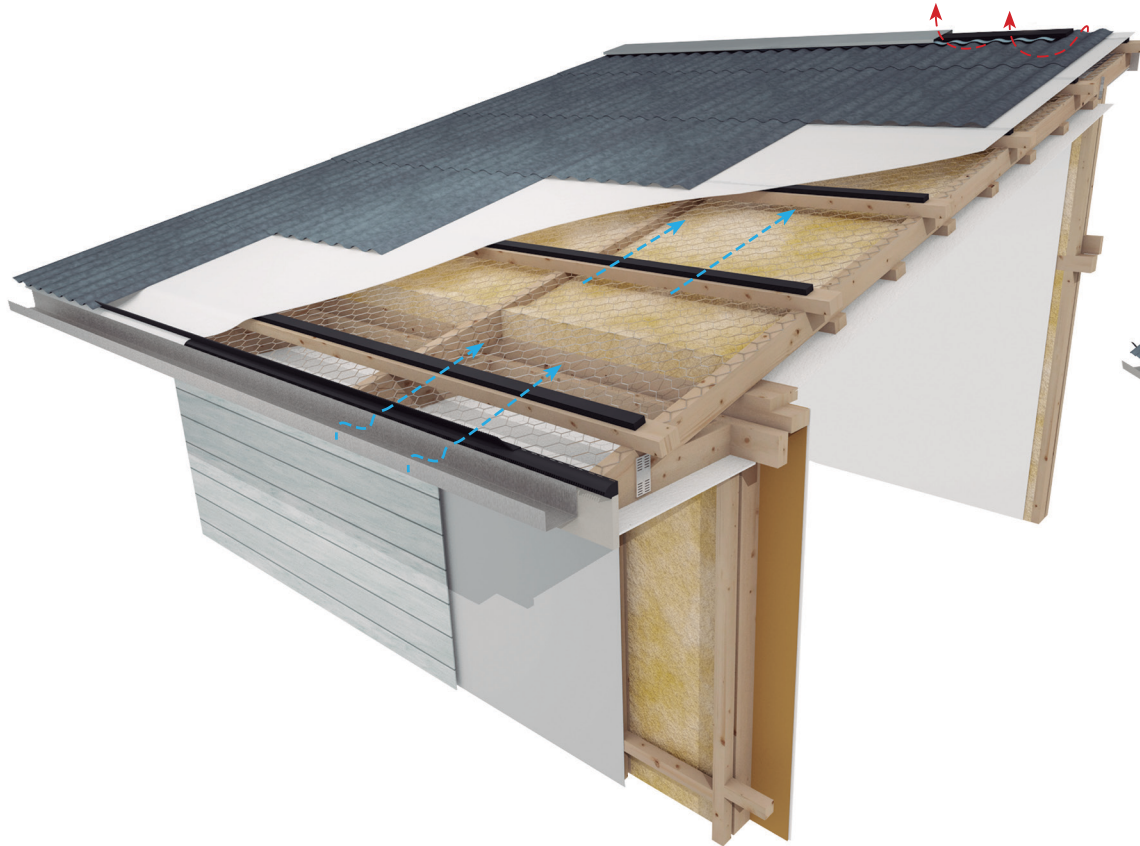
Cladosporium species – the main effect of the fungus is disfigurement of the surface that the fungus is growing on. Mycotoxin production is generally not associated with this species but the ability to sporulate heavily and have buoyant easily dispersed spores makes this an important fungal airway allergen.

Applying product combinations and products

Using tried and tested international best practice, VENT Airflow calculations are determined by the pitch and type of roof. There are a variety of product options & combinations which will provide passive ventilation requirements for new build & existing homes, schools and commercial buildings.

It is imperative that products are used in combination as recommended in VENT technical details to ensure that essential calculated, continuous and unimpeded passive ventilation is achieved.

Mono Pitch Skillion Roof



>30° Trussed Roof

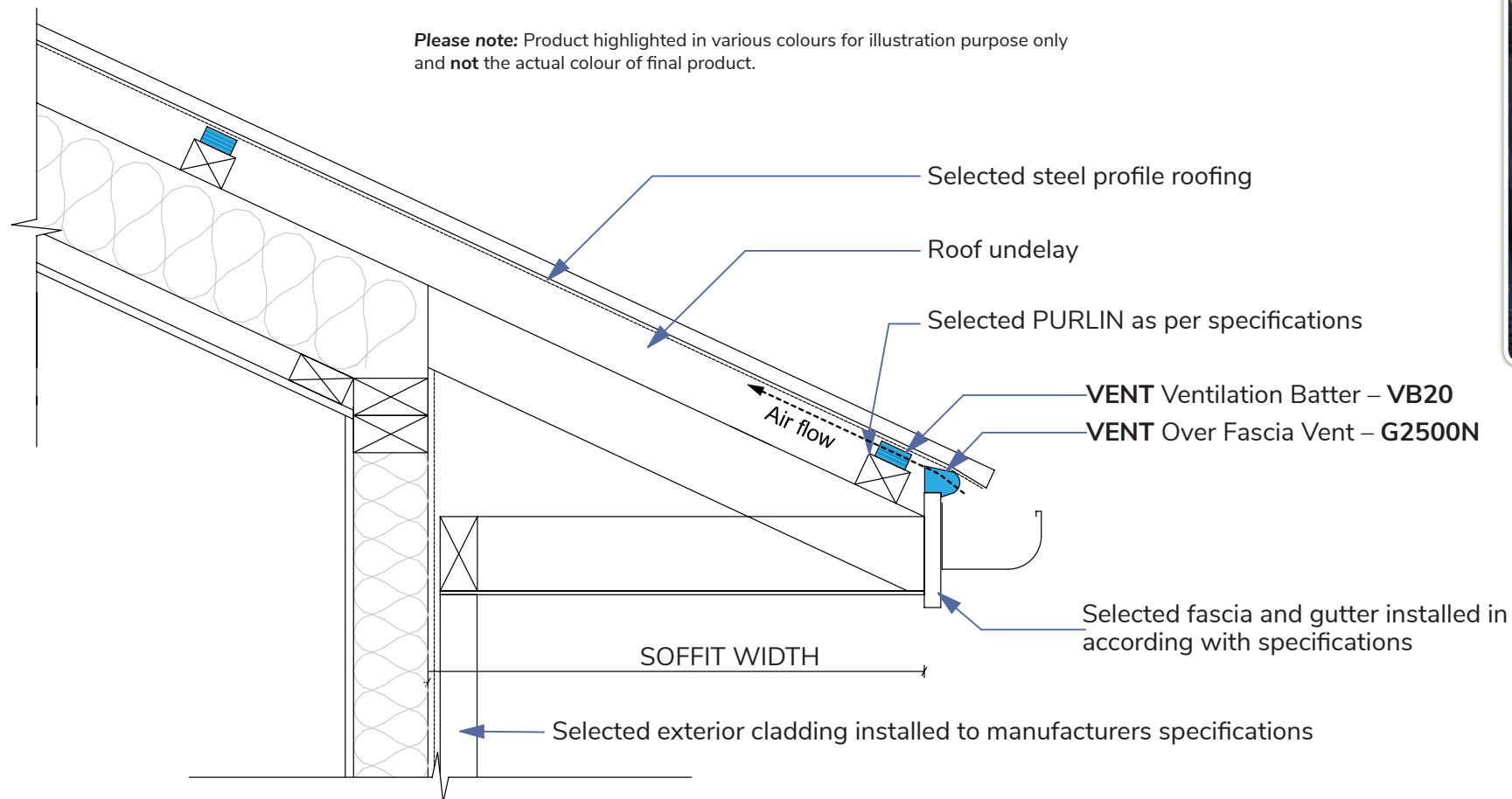


Recommended airflow is determined according to the pitch and the type of roof:

- Trussed Roof Pitches $>15^\circ$ require a calculated airflow of $10,000\text{mm}^2$ per linear metre
- Trussed Roof Pitches $>30^\circ$ require a calculated airflow of $10,000\text{mm}^2$ per linear metre
- Trussed Roof Pitches $<15^\circ$ require a calculated airflow of $25,000\text{mm}^2$ per linear metre
- Skillion Roof Pitches any degree pitch require a calculated airflow of $25,000\text{mm}^2$ per linear metre

Vent Over Fascia Vent – G1200N / G2500N

Please note: Product highlighted in various colours for illustration purpose only and **not** the actual colour of final product.



The **VENT Over Fascia Vent** is the most practical and cost efficient method of ventilating the Eaves. It is easy to install, discrete and is compatible with either timber or metal fascias.

The **G1200N & G2500N VENT Over Fascia Vents** are designed to discreetly ensure a positive airflow of 10,000mm² and 25,000mm² per linear metre, respectively, into the roof space between the roof membrane and the fascia board. This product is ideal for new build and re-roofing situations.

The application of either the **G1200N or G2500N** will depend on the pitch and design of roof construction. The **G1200N & G2500N** are designed with 4mm evenly spaced openings specifically sized to prohibit large insects gaining access but wide enough to prevent capillary action

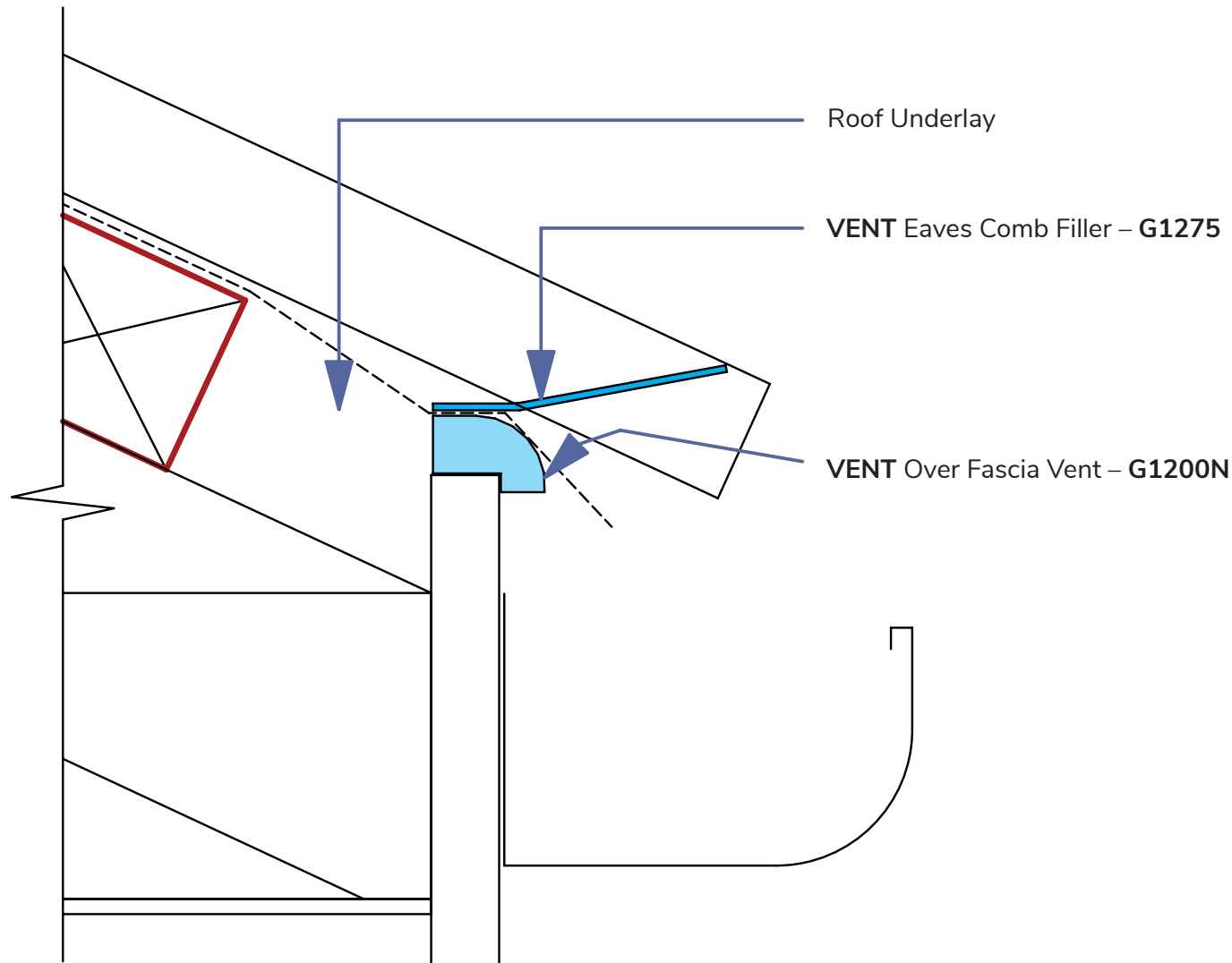
The **G1200N & G2500N** should be used in conjunction with other specified VENT products.

Please see VENT Technical details for further information.

VENT Over Fascia Vent - G1200N (recommended for roof pitches over 15 degrees) (10,000 mm² lin/m)
A minimum of 20mm gap between the bottom purlin and Over Fascia Vent must be realised for air flow into the roof cavity.

FOR ALL SKILLION ROOF SITUATIONS USE VENT G2500N

Vent Eaves Comb Filler – G1275

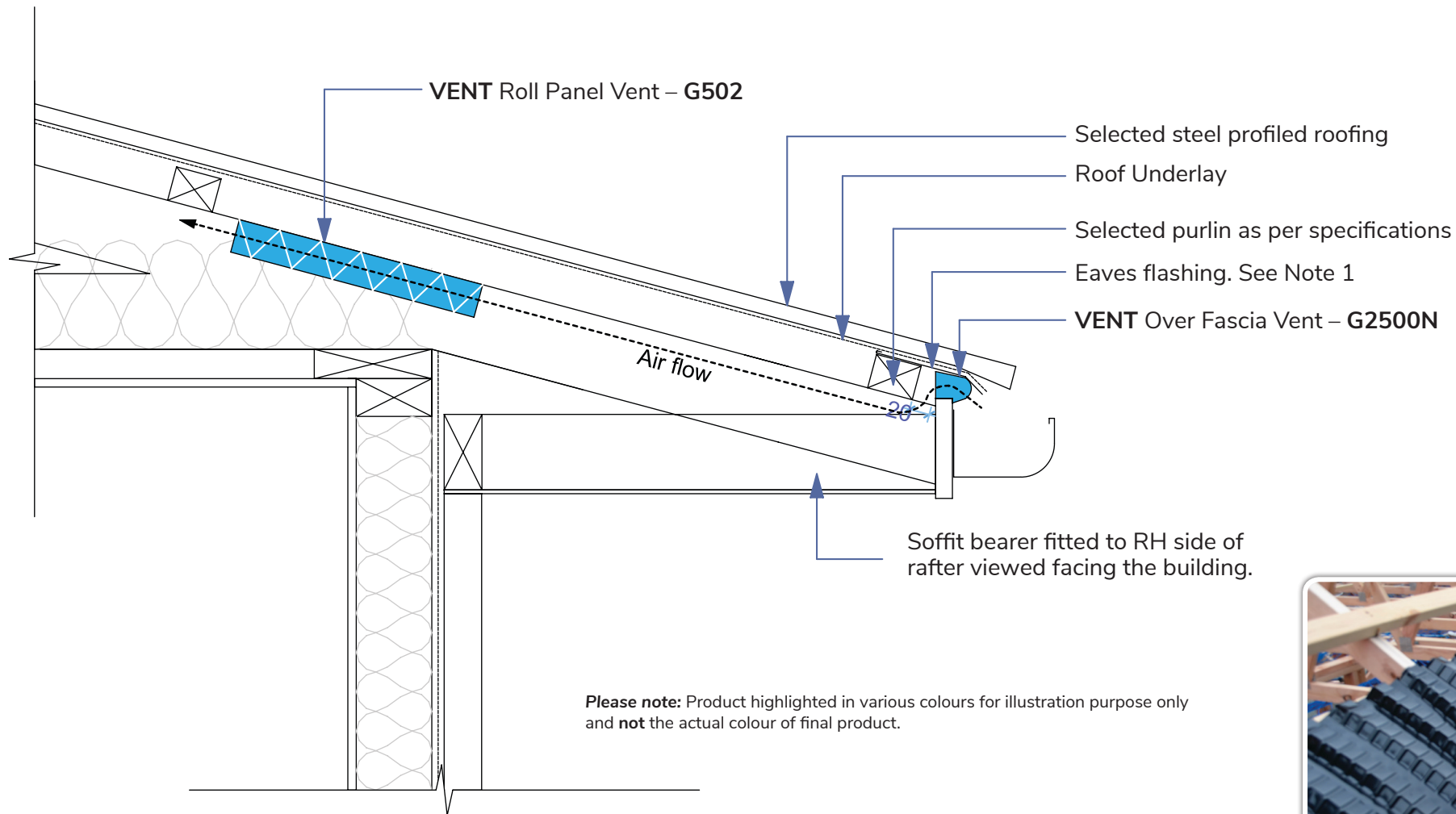


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The G1275 VENT Eaves Comb Filler is designed with flexible fingers that adjust to fill the gaps left when using profiled tiles or steel roof cladding, preventing entry of birds and large insects.

The use of the **G1275** eliminates the need to make or buy expensive purpose made profiled fillers that can block necessary airflow into the roof spacing between underlay and roof cladding.

Vent Roll Panel Vent – G502



The **VENT Roll Panel Vent** is designed to maintain a continuous 25mm air gap between the underside of the roofing membrane or sarking board and loft insulation at the eaves, providing a consistent flow of air into the roof space.

The **G502** castellated profile is laid across the top of the roof trusses/rafters parallel with the eaves level and is suitable for both new build and roof renovation projects. The extra width of the panel allows for better coverage when low pitch and deep insulation details are encountered.

This product should be used in conjunction with other soffit/fascia vents to provide a complete roof ventilation system.

VENT Over Fascia Vent - G2500N

(recommended for roof pitches under 15 degrees and skillion roofs) (25,000 mm² lin/m)

A minimum of 20mm gap between the bottom purlin and Over Fascia Vent must be realised for air flow into the roof cavity.

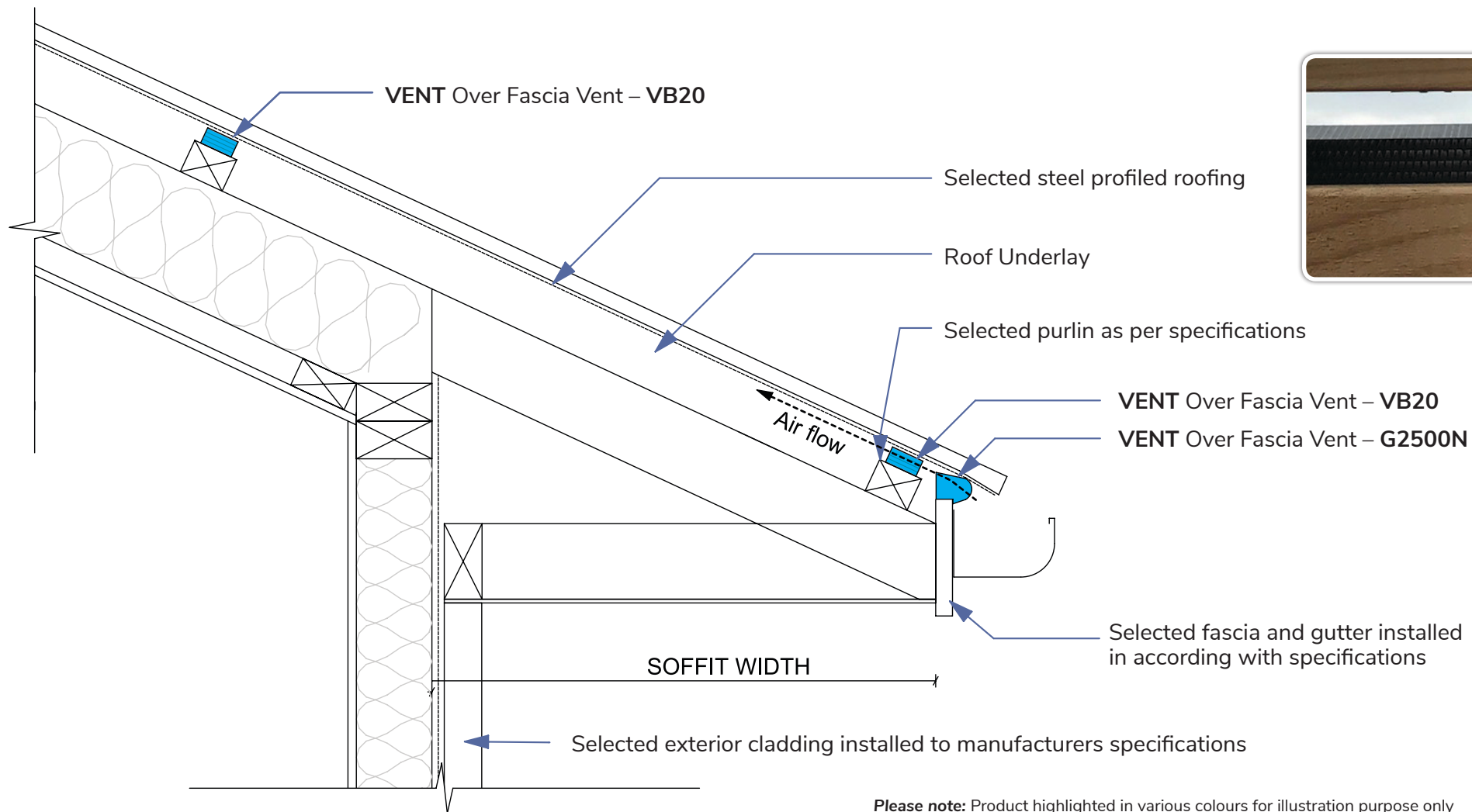
FOR ALL SKILLION ROOF SITUATIONS RECOMMENDED USE OF VENT G2500N

Note 1

Eave flashing required where all of the following conditions are met:

- Roof pitch less than or equal to 10°, and
- Soffit width less than or equal to 100mm, and
- Wind zones are Very High or Extra High

Vent Vented Batten – VB20



The **VENT Vented Batten** is a strong, durable purlin cavity batten that is designed to ensure that unimpeded airflow is guaranteed through the roof cavity of a Skillion Roof design, enabling passive airflow around the entire building envelope.

The **VB20** is designed with 4mm evenly spaced openings specifically sized to prohibit large insects gaining access but wide enough to prevent capillary action.

The **VB20** is easy to install and come with an adhesive underside for ease of temporary fixings to metal or timber purlins.

The **VB20** should be used in conjunction with other specified VENT products.

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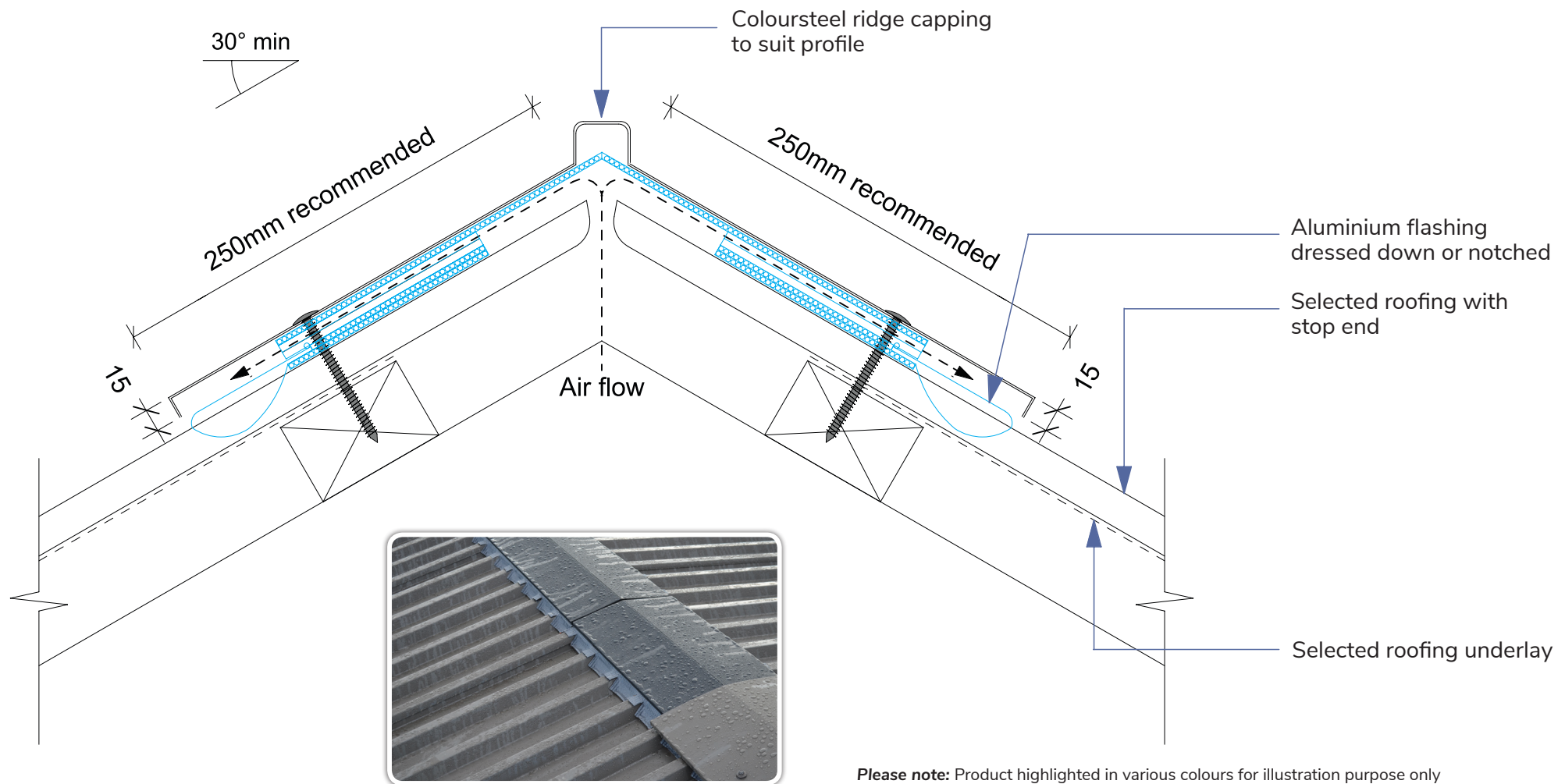
Although specifically designed as an easy to fit roof ventilation product, the VB20 can also be used on walls to create vertical or horizontal ventilation flows.

VENT Over Fascia Vent - G2500N

(10,000 mm² lin/m) A minimum of 20mm gap between the bottom purlin and Over Fascia Vent must be realised for air flow into the roof cavity.

STEEL PROFILED ROOF CLADDING

Vent Ridge Vent – RV10P / RV10DT



Please note: Product highlighted in various colours for illustration purpose only and **not** the actual colour of final product.

The **VENT Ridge Vent** is designed to release warm air from the roof void using the natural convection of rising warm air or by means of negative pressure created by wind blowing over the roof. The **RV10P & RV10DT** have an adhesive and flexible aluminium flashing which is designed to form to roofing profiles and prevent water ingress on any pitch roof.

The **RV10P & RV10DT** both form part of a passive ventilation system that works year round with no moving parts or energy consumption.

The **RV10P** is designed to be compatible with roof cladding profiles with a trough depth of <38mm.

The **RV10DT** is designed to be compatible roof cladding profiles with a trough depth of >38mm.

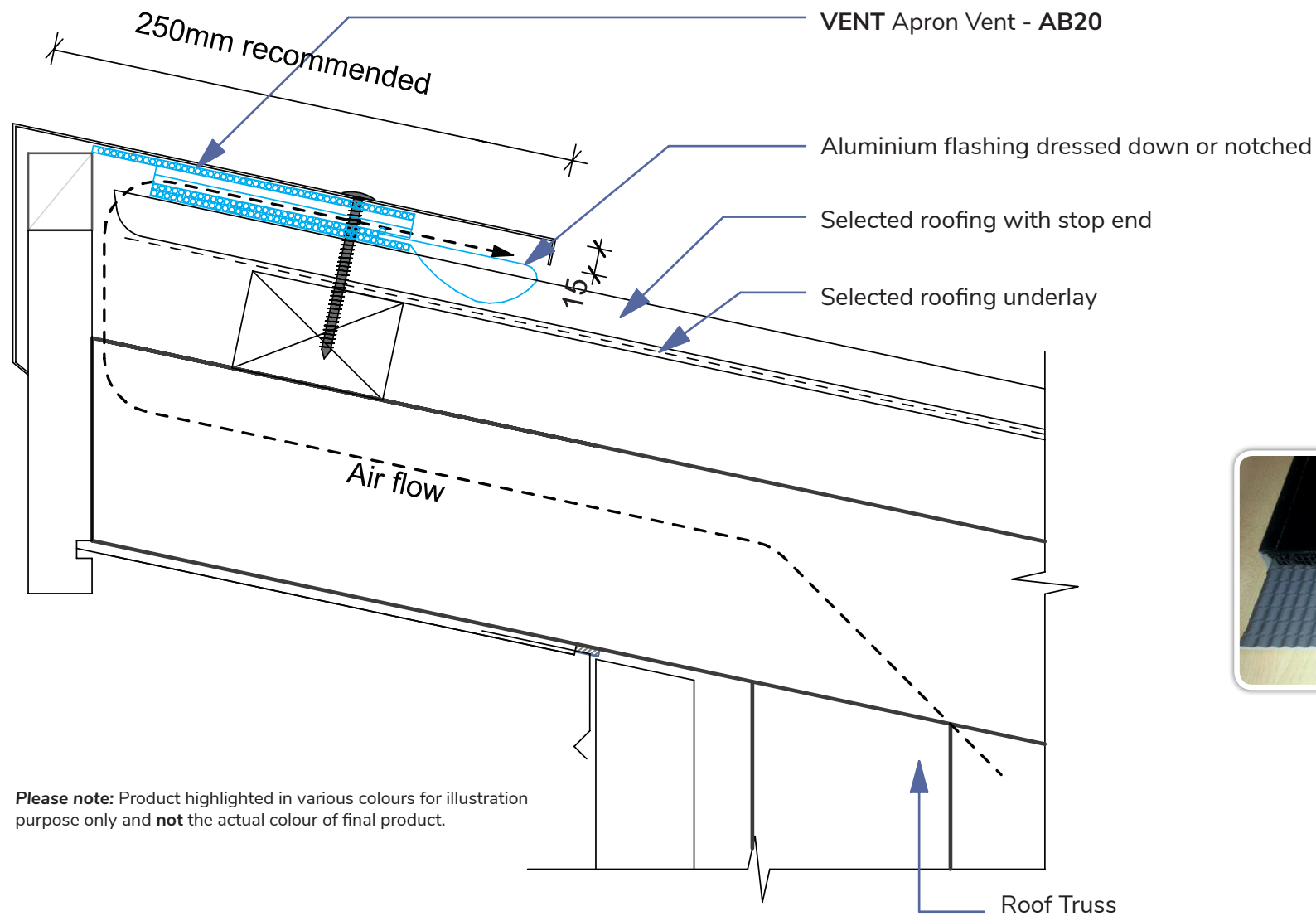
VENT Ridge Vent - RV10P

USE THIS METHOD TO PROVIDE VENTILATION TO TRUSSED ROOFS ONLY. VENT VB20 REQUIRED FOR SKILLION ROOFS.

The metal ridge cap is supplied by the roof cladding supplier.

The Capping can be extended to 250mm to hide the soft edge flashing (if required)

Vent Apron Batten – AB20 / AB20DT



Please note: Product highlighted in various colours for illustration purpose only and **not** the actual colour of final product.

The **VENT Apron Batten** is a Polypropylene Vent which enables warm air to escape from the lower roof void or through the barge detail of a mono-pitch skillion roof. The **AB20** has an adhesive and flexible aluminium flashing which is designed to form to roofing profiles and prevent water ingress on any pitch roof.

The **AB20 & AB20DT** both form part of a passive ventilation system that works year round with no moving parts or energy consumption.

The **AB20** is designed to be compatible with roof cladding profiles with a trough depth of <38mm.

The **AB20DT** is designed to be compatible roof cladding profiles with a trough depth of >38mm.

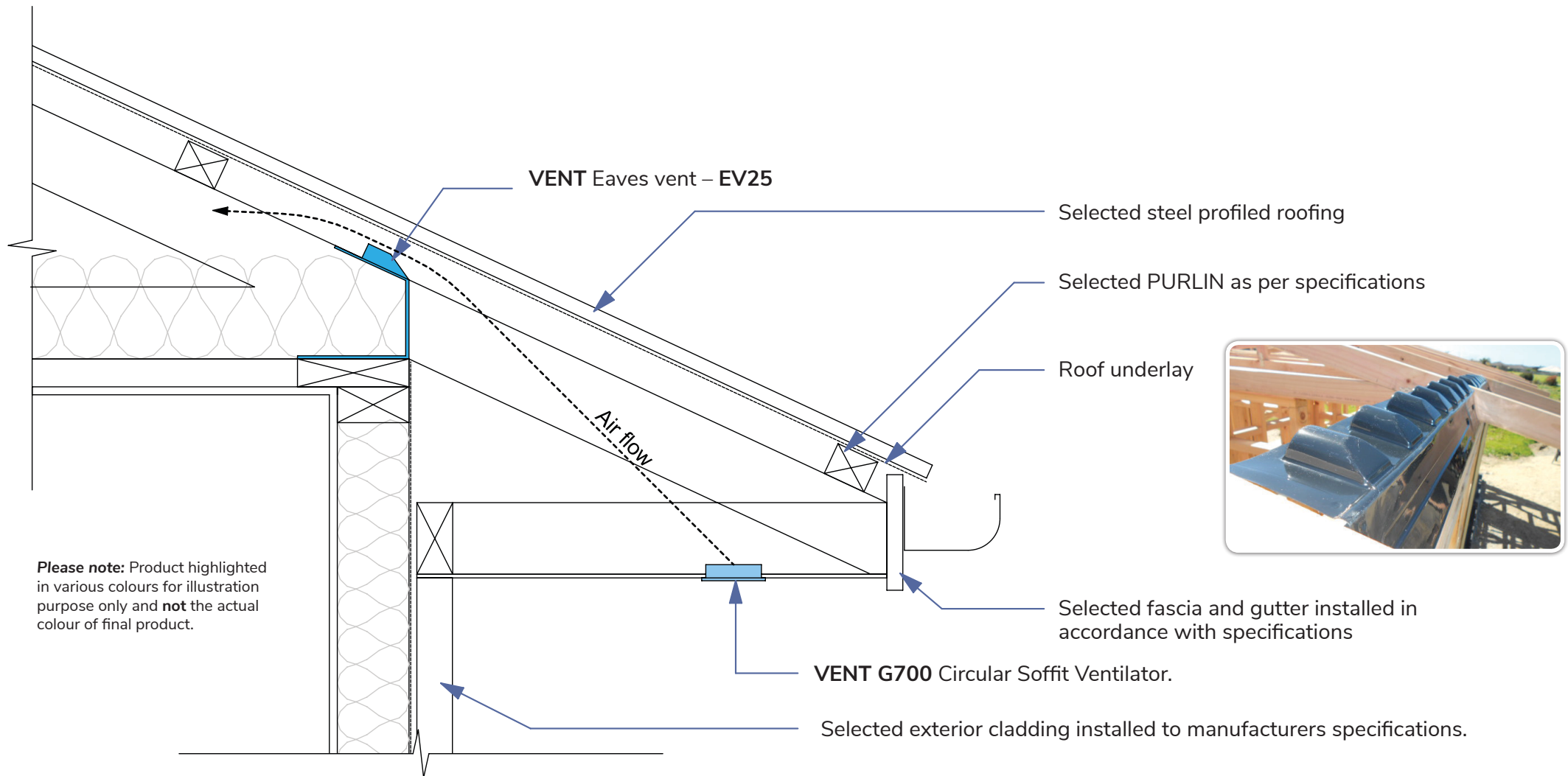
VENT Apron Vent - AB20

PROFILED STEEL ROOF CLADDING Ventilated Barge Detail

USE THIS METHOD TO PROVIDE VENTILATION TO TRUSSED ROOFS ONLY. VENT VB20 REQUIRED FOR SKILLION ROOFS.



Vent Eaves Vent – EV25



The EV25 Eaves Ventilator performs two functions:

- It creates a moisture barrier between the roof underlay and the insulation. This prevents any contact with moisture & condensation.
- It ensures a continuous airflow from the soffit/fascia vents into the roof void. This area is commonly blocked by the roof insulation.

New Build

The Rafter Tray can be optionally fitted to the external face of the wall plate during construction which will make it easier to place at the correct height. This method only requires one fold.

Retro-fit

If the pitch of the roof is shallow, a telescopic grabber (used for picking up litter) can be used by pulling back the existing insulation and placing the tray on the wall plate. When the insulation is placed back it will hold the tray in place.

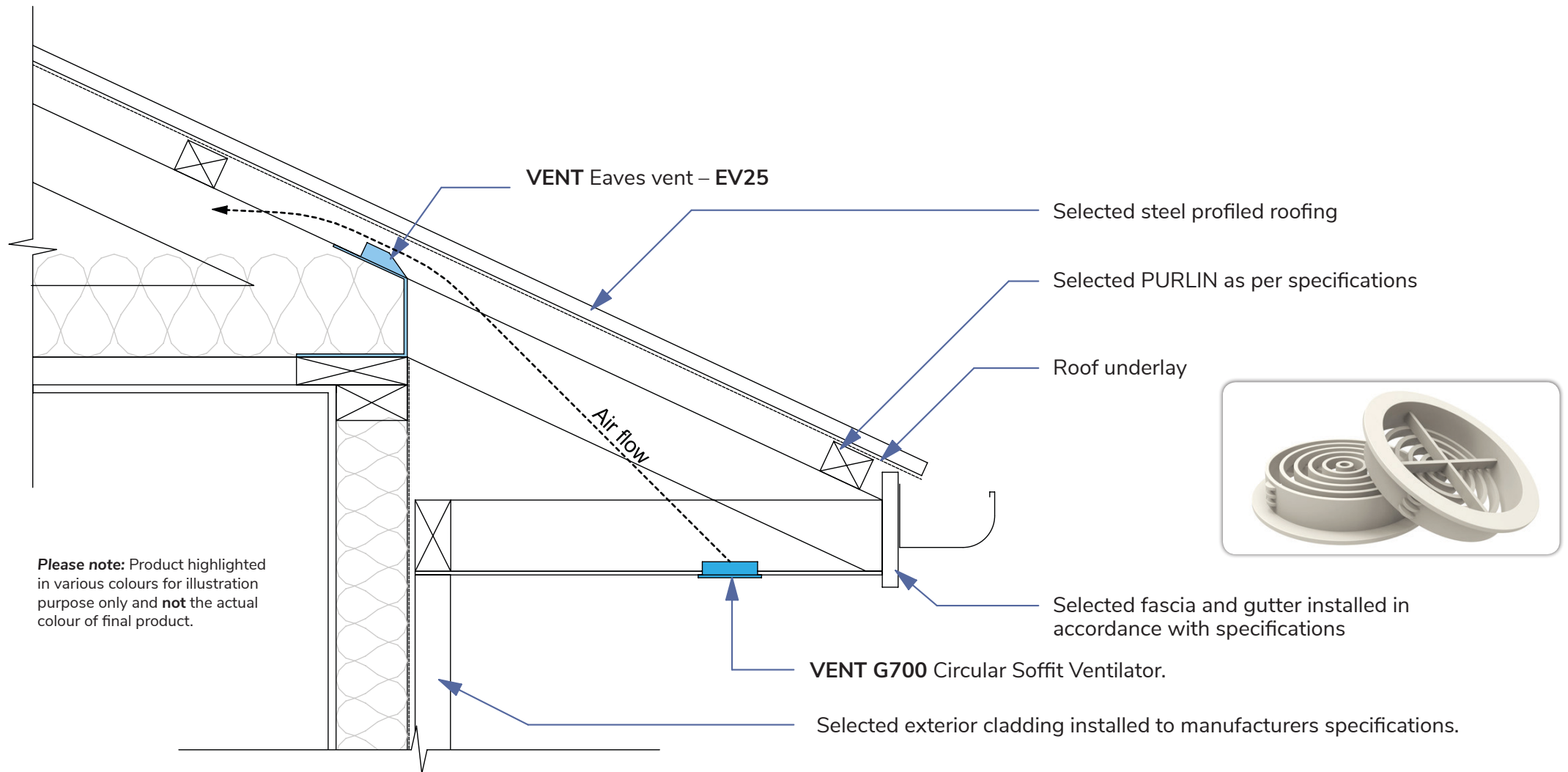
VENT Eaves Vent - EV25

(25,000 mm² lin/m)

VENT Circular Soffit Vent - G700 (any roof pitch)

(10,000 mm² lin/m @ 200mm crs.) or (25,000 mm² lin/m @ 86mm crs.)

Vent Circular Soffit Vent – G700



G700 Vents can be utilised for new build & refurbishment projects. The G700s are an easy retro fit solution for existing soffits on both Skillion and Trussed roof designs with condensation problems. Standard fixing for this product is a simple push twist action into a 70mm hole drilled in the soffit board.

The **G700** are designed with 4mm evenly spaced openings specifically sized to prohibit large insects gaining access but wide enough to prevent capillary action.

The **G700** comes in white, black or brown colours.

This product should be used in conjunction with the VENT **Eaves Vent (EV25)** or VENT **Roll Rafter Tray (G502)** to ensure continuous airflow into the roof void.

VENT Circular Soffit Vent - G700 (any roof pitch)

(10,000 mm² lin/m @ 200mm crs.) or (25,000 mm² lin/m @ 86mm crs.)

VENT

Experts in passive ventilation.

VENT is New Zealand's leading specialist in the supply of passive ventilation systems and products. VENT was created as a direct result of the misconception that the 'Leaky Homes' disaster that gripped New Zealand was caused solely by external moisture penetration and product failure. The pre-occupation with making homes increasingly more weather tight over the last few decades has prevented our buildings from breathing and has led to houses being designed and built without passive ventilation. Design and build of this nature gives rise to the potential for internal moisture issues.

VENT systems are specifically tailored for New Zealand buildings and the extreme climatic conditions. VENT products are tried, tested and designed to avoid compromising the thermal envelopes of our buildings.

**IF YOU HEAT AND INSULATE, BUT
YOU DON'T VENTILATE, YOU WILL
CONDENSATE!!!!**

Applying this rule, it is VENT's mission to see the quality of New Zealand buildings improve significantly by simply allowing our buildings to breathe again. It is essential that buildings achieve balanced airflow through both the habitable and non habitable areas of the building before they can start to be considered as a healthy home or a healthy working environment.



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