



STANDING SEAM



ARCHITECTURAL
PANEL SYSTEMS
AUSTRALIA

PRODUCT OVERVIEW

Architectural Panel Systems Standing Seam profile provides an ideal solution for both contemporary designs and traditional architecture.

This system was developed in Europe and has been used for 200 years as a way of complimenting contemporary architecture.

Standing Seam is a timeless style profile, with its classic longitudinal joint system, continuous long lengths, vertical 25mm ribs and elegant defined lines. Traditional architecture or modern design will be highlighted perfectly thanks to the systems wide range of design details and flexibility.

As light, temperature and the natural environment changes, so does the visual texture and appearance of the Standing Seam panel.

When it comes to more complex and detailed designs, the Standing Seam system presents a technologically advanced solution.

Standing Seam is widely used for its top performing attributes; weather resistance to harsh climates and its ability to create watertight solutions on roof and facade applications, even in areas subject to coastal spray, snowfall, high winds and heavy rain.

CHARACTERISTICS

- » Horizontal or vertical panels
- » Concealed fix system
- » Attractive longitudinal joints
- » Versatile and lightweight
- » Continuous long length panels
- » Modern clean finish
- » Flexibility suitable for all architectural designs.
- » Fine seams for a slimline look
- » Blending in with traditional and modern architectural design

BENEFITS

- » Minimal maintenance requirements
- » Easy installation via a concealed clip system
- » Allows the building to breathe via a natural air gap
- » Highly resistant to strong winds
- » Fast & Easy installation making it cost effective.
- » Low risk of water penetration
- » Lightweight system

DESIGN AND SPECIFICATION

- » Vertical, horizontal and diagonal laying of panel
- » Tapered and splayed panels
- » Staggered, brick pattern options
- » Fully customised panel width
- » Endless possibilities for implementing design ideas
- » Perforated finishes
- » Creating a facade with multiple, varied width panels, installed in sequence or sporadically to create a very modern, random effect.
- » All types of roofs and facades.
- » All shapes - Flat, Curved, Concave, Convex, Conical, Domes.

USES

- » Commercial
- » Residential
- » Industrial
- » Interior
- » Exterior
- » Wall Cladding
- » Facades
- » Soffit Lining

MATERIAL FINISHES

Architectural Panel Systems Standing Seam is available in a wide range of material finishes, designed to suit all kinds of project applications from basic residential homes to architecturally designed homes, to the most prestigious and well known commercial projects in the country.

From Copper to Colorbond, Standing Seam has been designed to suit the requirements of most individuals, while keeping budgets in mind.

PRESTIGE MATERIALS

Our range of prestige materials are on offer for people looking to step outside the box of everyday architecture and design.

These metals are an ideal choice for anyone wanting to achieve the ultimate WOW factor on their project.

This range of materials will bring maximum attention to your design when completed, while providing a striking finish unseen anywhere else.

A perfect choice for anyone who wants to have their project as the talk of the town.

- » Coloured, Textured & Patina Copper
- » Coloured & Patina Copper Alloys (Brass and Bronze)
- » Coloured Titanium
- » Coloured and Textured Stainless Steel
- » Patina Mild Steel
- » Patina Aluminium

COPPER ALLOYS

- » Copper
- » Brass
- » Bronze

SPECIALTY METALS

- » Zinc
- » Corten Steel
- » Stainless Steel
- » Aluminium
- » Timbaclad

BASIC METALS

- » Colorbond Metallic
- » Colorbond Ultra
- » Coolmax
- » Colorbond
- » Zinalume
- » Galvanised
- » Mild Steel

TOPICAL FINISHES

- *Anodising
- *Powdercoating

Please contact Architectural Panel Systems or visit our website for further information and data on our range of materials and sample requests



INSTALLATION & TECHNICAL DATA

GENERAL INSTALLATION

Standing Seam installations require a continuous ventilation gap beneath the plywood substrate. 20mm for all facade and cladding projects and a 40mm continuous air gap for roofing installations. Ventilation is recommended to remain at the top and bottom of all panels where possible.

All panels are to be laid on a solid substrate, which is then wrapped in a vapour barrier membrane. Panels are laid directly over the membrane and clips are used to fix the underlap with the accredited fasteners.

The following panel, beginning with the overlap is then placed over the underlap, concealing the fixing clips and the seam is mechanically closed with a manufacturer approved tool.

If your project requires an installation of panels higher than 30 metres in the air, or if it is in a high speed wind area where winds may reach speeds above 170km/h, please contact Architectural Panel Systems.

VERTICAL INSTALLATION

A fixed area is created with 5 fixed clips at the top of the panel and then sliding clips are distributed.

HORIZONTAL INSTALLATION

A fixed area is created with 5 fixed clips in the middle of the panel and the sliding clips are distributed.

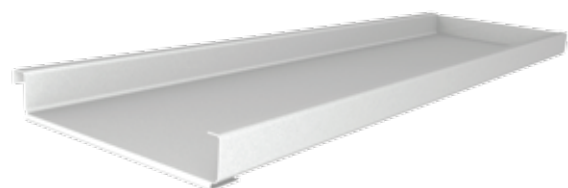
CURVED INSTALLATION

Curved walls can be achieved in concave, convex, conical and dome applications.

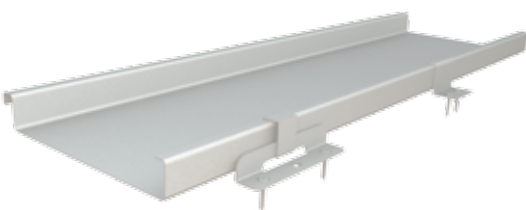
Subject to panel lengths, material selection etc



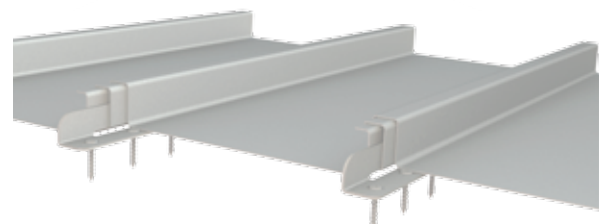
Standard Panel



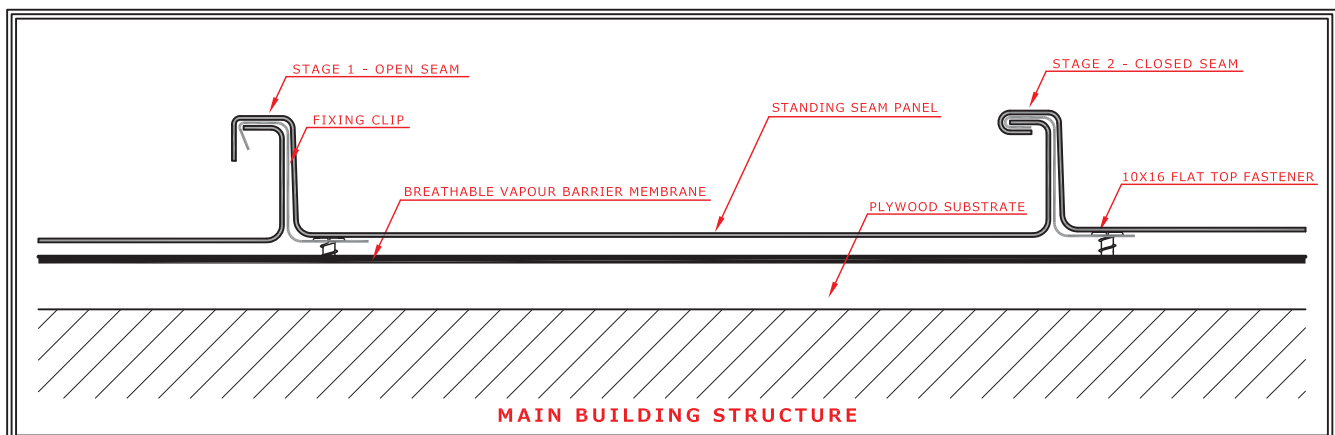
Rolled & Stop Ended Panel



Sliding & Fixed Clips



Install Detail



PANEL WIDTH:

No Minimum - 600mm Maximum

STANDARD WIDTHS:

225mm, 255mm, 325mm & 425mm (25mm Rib Height)

*Thinner and wider panels are available upon request for special project requirements.

LAYING DIRECTION:

Vertical, horizontal and diagonal orientations.

RIB HEIGHT:

25mm Standard

Custom rib heights are available upon request

PANEL LENGTH:

Panels are available in most required lengths, however this is subject to material selection. We recommend contacting Architectural Panel Systems for further information on material selection and maximum panel lengths for your project, as all materials will react differently depending on the length supplied.

PANEL DEPTH:

28mm depth overall from base of panel, to top of rib.

MATERIAL THICKNESS:

0.55mm minimum to 1.0mm maximum.

*Material thickness is dependent on material chosen and panel width required.

FIXING REQUIREMENTS:

All panels are to be fastened using the approved clips, fixing through the underlap and using the following panel to hide the concealed clip. The approved fasteners and clips must be used on all installations. To complete the installation, all seams are required to be mechanically closed either once for a single lock or twice for a double lock.

Single lock and double lock may be required in certain circumstances

SUBSTRUCTURE:

Wall Cladding / Facades: 15mm Plywood, covering the entire area where cladding is required.

Roofing: 19mm Plywood, covering the entire area where roofing is required.

An anti abrasive breathable vapour barrier membrane is required between the plywood substrate and the Standing Seam panel.

Each sheet of plywood must rest on at least 3 bearing structure elements.

Plywood substrate must be free of any protruding elements that may affect the face of the installed panel.

FLASHING:

All associated flashings are available directly through Architectural Panel Systems. We recommend all installers to use the traditional concealed fixing method with all flashings to provide a high quality finish. The concealed fix method also allows for thermal expansion and contraction.

PANEL FINISHING:

Architectural Panel Systems recommends all panels are installed and supplied with a stop end or over fold at the top and bottom of the panel for all applications. This will stiffen the panel face, remove any oil canning and also provide a much cleaner, flatter surface finish on all panels.

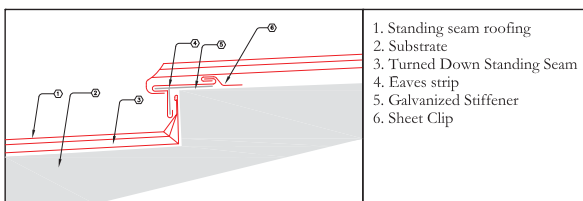
CORNER PANELS :

The benefit of using the Standing Seam system is that all panels can be folded and mitred around internal and external corners, eliminating the need for unsightly flashings. All corner panels can be custom fabricated to site specific measurements.

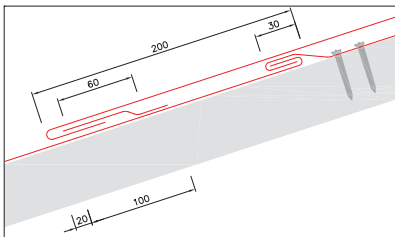
TRANSVERSAL JUNCTIONS:

In applications where the length of the sheet required exceeds our recommended length for that specific material, the panels will require a joint in the sheet using a transversal junction. 3 recommended techniques exist, depending on the pitch of the roof.

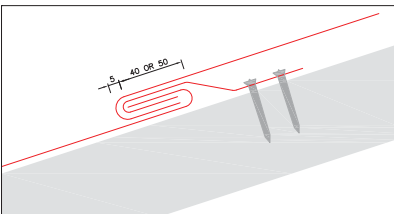
***Step / Drip Join** - This joint is suitable for roof pitches of 3 degrees (5% or more). The step height required will be a minimum of 80mm.



***Double Welt** - This joint is recommended for roof pitches of 8 degrees (15% or more). The minimum length of the overlap should be 200mm, with a securing clip at the top. This overlap can be increased, subject to climatic conditions such as rainfall and wind severity.



***Single Welt** - This joint is recommended for roof pitches of 25 degrees (47% or more). The single welt requires an overlap of 50mm.



We recommend using the double welt over the single welt for Standing Seam where possible, as it will provide much greater water and wind resistance.

Minimum Pitch: 60 - 90 Degrees (Single Lock Walls)
3 Degrees or 5.2% (Double Lock Roofs)

Finishing Details - A manufacturer approved profiling / seaming tool is required to close the longitudinal seam joints.

FIXING CLIP SYSTEM:

Standing Seam clips are designed to be a dual purpose clip. They ensure the mechanical resistance of the panels fixed to the substrate while also allowing for free expansion and contraction of the metal.

All clips are manufactured from Stainless Steel for long lasting, high performance.

The sliding clips have an adjustable, moving component which is 0.4mm thick and a 70mm long slot which allows for unobstructed movement of the panel when expansion and contraction is required. The sliding component of the clip must be positioned correctly within the slot at the time of installation. Generally, the sliding component is required to be positioned as close as possible to the middle of the slot.

The clips resistance to tearing is 50 daN.

Both fixed and sliding clips are to be used to allow for thermal expansion and contraction. This must be allowed for during installation by the contractor.

Clip Fasteners - It is recommended that all clips are to be fixed using the approved fasteners.

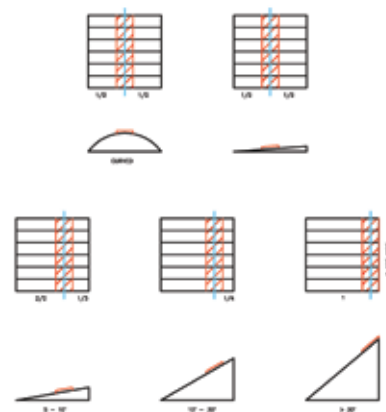
We do not recommend that nails are used for fixing as they offer significantly less resistance. In the circumstance that nails are required, it is recommended that ring shank nails are to be used. 3 fasteners per clip is recommended on all installations.

Clip Spacing - Clips are required to be spaced approximately 330mm centre to centre on the main part of all installations.

Around the perimeter of the installation, it is recommended that clips are fixed at 165mm centre to centre.

Use the chart below as a guide to determine the location of the fixing clips on your project

For detailed clip fixing guides and diagrams, please contact Architectural Panel Systems



Fixing Clip System

SPECIFICATION TABLE

MATERIAL SELECTION	STD. PANEL WIDTH	THICKNESS	L/M PER M2	WEIGHT PER M2 (PANELS ONLY)	CLIPS PER M2	SCREWS PER M2
Copper	225mm	0.7mm	4.45	8.4	15	30
	335mm	0.7mm	2.98	7.49	10	20
	525mm	0.9mm	1.91	9.25	7	14
Zinc	255mm	0.7mm	4.45	7.53	15	30
	425mm	0.7mm	2.36	5.99	8	16
Stainless Steel	225mm	0.55mm	4.45	6.18	15	30
	335mm	0.55mm	2.98	5.52	10	20
	525mm	0.7mm	1.91	6.67	7	14
Aluminium	225mm	0.8mm	4.45	2.9	15	30
	335mm	0.8mm	2.98	2.59	10	20
	525mm	1.0mm	1.91	3.11	7	14
Brass	255mm	0.6mm	3.93	6.35	13	26
	425mm	0.8mm	2.36	8.37	8	16
Bronze	225mm	0.6mm	4.45	7.19	15	30
Corten	225mm	0.7mm	4.45	7.68	15	30
	335mm	0.7mm	2.98	8.56	10	20
	525mm	0.7mm	1.91	6.59	7	14
Colorbond Metallic	225mm	0.55mm	4.45	6.08	15	30
	335mm	0.55mm	2.98	5.43	10	20
	525mm	0.55mm	1.91	5.22	7	14
Colorbond Ultra	225mm	0.55mm	4.45	6.08	15	30
	335mm	0.55mm	2.98	5.43	10	20
	525mm	0.55mm	1.91	5.22	7	14
Colorbond	225mm	0.55mm	4.45	6.08	15	30
	335mm	0.55mm	2.98	5.43	10	20
	525mm	0.55mm	1.91	5.22	7	14
Zincalume	225mm	0.55mm	4.45	6.03	15	30
	335mm	0.55mm	2.98	5.38	10	20
	525mm	0.75mm	1.91	6.99	7	14
Galvanised	225mm	0.55mm	4.45	6.28	15	30
	335mm	0.55mm	2.98	5.61	10	20
	525mm	0.75mm	1.91	7.26	7	14
Perforated	225mm	TBC	4.45	-	15	30
	335mm	TBC	2.98	-	10	20
	525mm	TBC	1.91	-	7	14

*All information provided above is to be used as a guide and is a recommendation only.

*Panel width, thickness, foam, batten spacings and stop ends can be changed accordingly to suit individual project needs.

*All Panel widths listed are standard sizes only, panels can be rolled into any width required for specific projects.

*Panel weights listed are approximate only.



**ARCHITECTURAL
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