Cladding & Soffits

DESIGN INSTALLATION GUIDES TESTS & REPORTS



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Intro

Cladding & Soffits

Knotwood's cladding system offers custom lightweight design solutions that will compliment any building, adding visual appeal and value.

Our cladding is strong, durable and easy to install. It is non porous, non combustible and designed to keep out the elements. Knotwood doesn't require repainting or resealing, making it a practical and cost effective solution.

Ø

for you.

ECO FRIENDLY

NON WARPING

Knotwood's aluminium lengths are not only lighter, but stronger and straighter than real wood and will not warp over time.

Knotwood is 100% recyclable,

uses VOC free coatings and lead

free finishes resulting in a smaller

environmental footprint for us and

COLOUR STABILITY

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All Knotwood colours have been tested to withstand the most extreme environments, ensuring that your colour choice looks better for longer.

SCRATCH RESISTANT

A topcoat of specially developed,

exterior grade paint is baked on to

provide resistance to chipping,

flaking, blistering and scratching.

WEATHER RESISTANT

Knotwood won't swell, grow mould or rust when exposed to wet conditions. Unlike wood, it is protected from corrosion in harsh environments.



Aluminium has a density one third that of steel and a weight 50% less than wood. This means low transport costs and easy installation.

Non Combustible

Knotwood is non-combustible and achieves a group 1 fire rating. It complies to Australian standards AS1530.1, AS1530.3.

Colours & Colour Fastness

Knotwood offers a wide range of colours inspired by nature's natural beauty. Knotwood has been manufactured for use in harsh climates, with minimal colour change over time. The degree of change will be dependent upon the installed situation, and may manifest itself as a lightening of the surface appearance, which will have no impact on the performance of the board.

Coating **Characteristics**

Knotwood uses a specialised sublimation process together with high quality inks and powders This process creates a durable hard wearing coating. This coating is resistant to most household solvents and cleaning products resulting in a superior low maintenance product.



Read First.

The installation techniques in this manual describe and illustrate the steps involved in installing Knotwood Cladding. Their purpose is to provide information and how-to tips that will simplify the installation process. Knotwood will not accept any liability or responsibility under its written warranty for product failure caused by application that does not meet the requirements for proper installation. These requirements are outlined throughout this document.

Before you begin any project, you need to be aware of building code requirements in the geographic areas where you are working, and how the code relates to the instructions given in this manual. You must always observe the requirements of local building codes, as they represent the legal requirements for an installation. The Building Code of Australia (BCA) is contained within the National Construction Code (NCC) and provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia. No instruction manual can anticipate all the questions or conditions that might arise during installation. Recognizing this, we've focused on the tools and techniques used to complete typical installations.

The manufacturer has provided these suggested instructions as installation guidelines. The manufacturer, however, neither installs the product nor has any control over the installation. It is the responsibility of the contractor and/or the installer to ensure panels are installed in accordance with these instructions and any applicable building codes. The manufacturer assumes no liability for either improper installation or personal injury resulting from improper use or installation. These instructions are prepared for persons experienced in the field of cladding installation and assume a foundation of working knowledge regarding the required tools and application process. Knotwood is a cladding system which complies with the requirements of AS1562.1, when installed according to these instructions. Knotwood has taken due care to prepare the enclosed literature to assist the end user. Knotwood is not liable for any errors and accepts no liability for information which may be misleading or misinterpreted.

Care & Maintenance

Caring for Your Cladding Boards.

The beauty of Knotwood is maintained with little effort. To remove any dirt or grime, a garden hose or pressure washer is generally sufficient.

If absolutely necessary follow these simple instructions:

1. Use a sponge or car washing brush that has soft bristles. Avoid using stiff bristle brushes or abrasive cleaners that may scratch the finish.

2. To remove sediment and grime found in industrial areas, wipe down the cladding with a mild detergent (PH-6-7 e.g. Car detergent).

3. Follow the precautionary label instructions on the cleaning agent container. Protect shrubs and other foliage from direct contact with cleaning agents.

4. Rinse any cleaning solution with water before it dries on the material to avoid streaking.



Replacing Damaged Cladding Boards.

Replacing damaged boards is a relatively simple process. Starting at the bottom of the wall remove each board moving upward until you reach the affected area.

Please note: There may be colour matching issues when new boards are used to replace damaged boards that have been installed for a long period of time. Each production batch can have colour variations due to the sublimation processes.

Warranties.

The coating technologies used on Knotwood products meet globally recognized AAMA2604 standards with regards to gloss retention, colour uniformity, weathering durability, humidity resistance, impact resistance and chemical resistance. The Knotwood range of sublimated timber grain products are supported by a 15 year performance warranty on the finish - the only one of its kind in the Australian market.

Failure to comply with Knotwood's installation instructions and/or applicable building codes and maintenance schedule may affect product performance and void the product warranty.

*Warranty applies only to aluminium when coated by an Interpon D Approved Applicator. Terms and conditions apply. Contact your Knotwood representative for further details.

Installation

Knotwood cladding is simple to install, however, we recommend using an independent Knotwood installer. Knotwood encourages the installer to read and adhere to all relevant technical information and installation techniques set out in this manual.

Applications.

- Knotwood may be installed on an existing structure or substrate of either timber. concrete or steel.
- Knotwood may be installed in coastal zones, fire risk areas and high wind • zones. The installer/builder has the responsibility to meet the needs of all Local Building codes for the locality of the installation.

Technical Assistance. For further information on any of the install process please visit www.knotwood.com.au

or alternatively contact:

•

KNOTWOOD PTY LTD 2/63 Burnside Rd, Stapylton QLD, Australia 4207 1.300.566.896 | sales@knotwood.com.au

Before Knotwood cladding can be installed, check the existing structure and substrate is constructed and detailed to comply with the relevant regulations.

The placement, detailing and correct installation of control joints is the responsibility of the Designer and Builder to determine if the joints are sufficient to accommodate any project specific movement.

The design, supply and correct installation of penetrations, e.g. windows, doors etc., are outside the scope of Knotwood's cladding system. The designer and builder must ensure that the building, including all drainage holes and integral flashings of all penetrations will prevent rain and water entering behind the cladding system and will drain to the outside of the building.

Check first.

Customer/Installers responsibilities.

- sales@knotwood.com.au

Prior To Installation

Before installing any material, inspect it for breakage, foreign objects, surface defects, correct product, correct colour, and colour consistency.

Do NOT install any questionable product!

• If you find a defect, contact Knotwood's Support team: 1.300.566.896

• If you elect to install questionable product and a manufacturing defect is not found to be the source of the problem, any claim may not be honored.

Before you install any Knotwood Cladding, it is important that you have read and understood the information in this guide. Please ensure you have the right tools, fastners and accessories to complete the project.

• OHS (Occupational Health and Safety) requires workers to always use the appropriate PPE (Personal Protection Equipment).

Preparation.

Prior to commencing the installation of Knotwood, ensure that all building wraps, flashing tapes and cavity batten systems are installed to their manufacturer's specifications and requirements.

Air Barriers, Seals & Water Proofing.

The Installer/Builder is required to check that all exterior walls, regardless of their location, have the necessary flashings, air barriers, seals and waterproofing sheets to meet the requirements of the BCA.

Level & Straight Substrate.

The specification, supply and construction of steel, timber or concrete wall or substrate does not form part of the Knotwood's Cladding System. Variations in the strength, stiffness, straightness and squareness of the wall and substrate must be checked and rectified as necessary, before any cladding installation can begin.

It is very important to ensure that, when you start installing the top board, that it is perfectly level. The top hat may require packing out to ensure the cladding boards sit flush when installed.

Installing Knotwood cladding on an uneven wall or substrate will make the boards appear to be warped and cause finishing strips and joiners to be misaligned.

Fastening Information.

discrepancies.

diagram below.



Install Considerations

Knotwood is fastened to the existing structure using clips ordered with the product. These clips allow for movement caused by thermal expansion and contraction. Use appropriate screws with corrosion resistance suitable for the application and climate. This will allow the product to be removed, if required, without damage. Screws also allow the installer to "back off" the screw and shim to address substrate

Clips should be placed at a maximum of 600mm apart. Please refer to

6000mm		
Expansion direction		
		3.0mm
	450-600mm	Expansion

Joining Cladding Boards.

Even with good planning, when covering large spans Knotwood cladding boards will need to be joined length-wise. The best place to join a weatherboard is between two studs (refer to pg 26). Avoid joining weatherboards less than 900mm from the end of the board to ensure the 900mm length of board is supported by at least 2 studs.

Install First.

When installing Knotwood cladding ensure all of the base components and flashings are fitted first before installation of the cladding boards and corresponding finishing trims.

Expansion and Contracting.

Like all aluminium products, Knotwood will expand and contract at different rates depending on the environment it is installed in. The coefficient of thermal expansion in aluminium will create movement in lengths when exposed to temperature changes. For example, a change of 30°C will cause a 6m cladding board to expand or contract 3mm. Therefore, it is imperative that Knotwood is installed to allow for both the expansion and the contraction of the material.

Do not fasten Knotwood cladding boards and the trim profiles together. This will prevent movement to take place.

If Knotwood is confined at each end, the expansion will cause waving. Install one fastener at the midpoint (through the profile fastening area) to prevent migration of the cladding to the left or right.



Cut First.

There may be up to 25mm each end due to the production process.

Expansion direction 5 6.0mm Material Expansio 6.0mm Material Screw boards to batten at centre to encourage expansion at outside ends. This allows minimal space between cladding

board joins.

Cutting Tips.

A proper amount of care, as with any prefinished product, will result in a premium quality installation. We recommend taping the face of the trim saw surface as well as table saw surface to prevent marring and scratching of boards. Cut face up whenever possible, and use touch-up paints to cover cut ends of exposed aluminum.

- **KEDSTR-SQ** Building Substructure Vapour Barrier / Building Envelope (by other) Top Hat Framing (by other)
- KECFBF
- KECFBF
- Window Frame (by other)



Fixings.

All fixing anchors are to be stainless steel. Alternatively, hot dipped galvanised steel fixings can be used in combination with a neoprene washer to isolate the fixing anchor from the aluminium.

Fixing anchors are to be installed in one row to each cladding board at maximum centres detailed below, and with one fixing at each end of each cladding board.

All fixing anchors are to be installed in accordance with manufacturer's specifications.

Fixing Into Steel Stud Wall.

Steel Stud	Wind Region A	Wind Region B	Wind Region C
0.55 BMT	Buildex #10-12TPI Screws at 2600mm Centres	Buildex #10-12TPI Screws at 1700mm Centres	Buildex #10-12TPI Screws at 1100mm Centres
0.75 BMT	Buildex #10-12TPI Screws at 3300mm Centres	Buildex #10-12TPI Screws at 2100mm Centres	Buildex #10-12TPI Screws at 1400mm Centres
1.20 BMT	Buildex #10-12TPI Screws at 3300mm Centres	Buildex #10-12TPI Screws at 2100mm Centres	Buildex #10-12TPI Screws at 1400mm Centres

Fixing Into Timber Stud.

	Wind Region A	Wind Region B	Wind Region C
Pine Timber Stud	Buildex #10-12TPI Screws at 3300mm Centres	Buildex #10-12TPI Screws at 2100mm Centres	Buildex #10-12TPI Screws at 1400mm Centres
Hardward Timber Stud	Buildex #10-12TPI Screws at 3300mm Centres	Buildex #10-12TPI Screws at 2100mm Centres	Buildex #10-12TPI Screws at 1400mm Centres

• Nominal embedment depth to timber to be 36mm.

• Fixing to be central in timber stud.

Fixing Into Concrete Wall.

Concrete Grade N25	Wind Region A	Wind Region B	Wind Region C
Option 1	Hilti HRD 8 Frame Anchors at 3600mm Centres	Hilti HRD 8 Frame Anchors at 2300mm Centres	Hilti HRD 8 Frame Anchors at 1600mm Centres
Option 2	Hilti HUS3-8 Screw Anchors at 3600mm Centres	Hilti HUS3-8 Screw Anchors at 2300mm Centres	Hilti HUS3-8 Screw Anchors at 1600mm Centres

• Nominal embedment depth to be 50mm.

• Minimum thickness of concrete to be 100mm.

Minimum distance from the concrete edge to be 70mm for Hilti HRD Frame Anchors and 50mm for Hilti HUS3 Screw Anchors.

Fixing Into Masonry Wall.

Solid Clay Brick	Wind Region A	Wind Region B	Wind Region C
Option 1	Hilti HRD 8 Frame Anchors at 1600mm Centres	Hilti HRD 8 Frame Anchors at 1000mm Centres	Hilti HRD 8 Frame Anchors at 700mm Centres
Option 2	Hilti HUS3-8 Screw Anchors at 3600mm Centres	Hilti HUS3-8 Screw Anchors at 2300mm Centres	Hilti HUS3-8 Screw Anchors at 1600mm Centres

Perforated Clay Brick	Hilti HRD 10 Frame Anchors at 2600mm Centres	Hilti HRD 10 Frame Anchors at 1700mm Centres	Hilti HRD 10 Frame Anchors at 1100mm Centres
Hollow Concrete Block	Hilti HRD 10 Frame Anchors at 1600mm Centres	Hilti HRD 10 Frame Anchors at 1000mm Centres	Hilti HRD 10 Frame Anchors at 700mm Centres

Nominal embedment depth to be 50mm for Hilti HRD Frame Anchors and 60mm for Hilti HUS3 Screw Anchors.
Minimum edge distances to be 100mm from the masonry wall edge, 40mm from vertical masonry mortar joints, and

• Minimum edge distances to be 100mm from the masonry 20mm from horizontal masonry mortar joints.

Horizontal Cladding.

FLAT BOARDS / SHIPLAP / SHADOW LINE

Components Installation Guides





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Although the following install guide drawings are using the flat cladding board, the basic installation principles are the same for the shiplap and shadow line cladding boards.

Please note, when referring to starter detail, shiplap cladding needs to start from the bottom up.

Components.

Starters	Joiner Trims
	P. 0
KEDSTR KECDIMSTR KECSTRBU	100mm 50mm KECJBF KECJTM
Clip	End Trims
KAOCC45	70mm KECFTSM 65mm KECFTLM
	Starters

Corner Trims











45mm KECIECFSLT

SLOTTED

50mm KECJTMSLT

SLOTTED

30mm 65mm KECFTTSMSLT KECFTTLMSLT



A | Starter Detail





Starting from the top, secure the starter piece by fixing a cladding clip onto the top hat frame.

Roll the cladding board into position. Butt it up against the starter strip if no space between the boards is desired. Secure board with cladding clip. Screw clip into position. Repeat steps 2 & 3*.

* Shadow Line Cladding.

Don't butt boards together, rather leave a 5mm gap between boards (see dissection B).

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- KEC150LW
- KEDSTR-SQ
- KAOCC45
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

A | Starter Detail Conc.





- A. KEC150LW
- B. KEDSTR-SQ
- C. KAOCC45
- D. Top Hat
- E. Screw (by other)
- F. Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)



- A. KEC150LW
- B. KEDSTR-SQ
- C. KAOCC45
- D. KECFBF
- E. KECFTTLM
- F. Top Hat
- G. Screw (by other)
- H. Vapour Barrier / Building Envelope (by other)
- I. Building Substructure (by other)



- B. KEDSIR-S
- C. KAOCC45
- D. KECFBF
- E. KECFTTLM
- F. Top Hat
- G. Screw (by other)
- H. Vapour Barrier / Building Envelope (by other)
- I. Building Substructure (by other)





- A. KEC150LW
- B. KEDSTR-SQ
- C. KAOCC45
- D. Top Hat
- E. Screw (by other)
- F. Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)

A | Starter Detail Conc.

(G)-

(F)-







- A. KEC150
- B. KEDSTR
- C. KECFBF
- D. KECFTTLM
- E. Top Hat Framing (by other)
- F. Screw
- G. Vapour Barrier / Building Envelope (by other)
- H. Building Substructure (by other)

- A. KEC150LW
- B. KEDSTR-SQ
- C. KAOCC45
- D. Top Hat
- E. Screw (by other)
- F. Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)
- H. Clamp
- I. Pull-in Nut
- J. Downpipe
- K. Nut





B | External Corner





Fix male corner to top hat.

Fit cladding boards over the male corner. Clip the female corner onto the male corner. Concealed screws, fixings and edges.

* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. А. В. С. Е. F. G.

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- KEC150LW
- KECIECF
- KECIECSM
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

C | Internal Corner





Fix female corner to top hat.

Fit cladding boards over the female corner. Clip the male corner onto the female corner. Concealed screws, fixings and edges.

* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. А. В. С. Е. F.

(G)-

(F)-

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- KEC150LW
- KECIECF
- KECIECSM
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)

D | Joiner

Note: The best place to join a weatherboard is between two studs. Avoid joining weatherboards less than 900mm from the end of the board to ensure the 900mm length of board is supported by at least 2 studs.







4.

Fix joiner base onto top hat.

Fit cladding boards over the joiner base and fix in place.*

Clip male joiner piece in place.

Joins are concealed leaving a clean finish.

*When spanning long lengths, screw cladding boards to batten at center join to encourage expansion to happen at outside ends.

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- KEC150LW
- KECJBF
- KECJTM
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

E | Window Detail | Sill







Mitre ends of the finishing base and fit below the window flashing. Do the same with the other pieces to form a frame around the window. Starting from the top, secure cladding boards in place.



Cladding boards may need to be cut in order to fit around service box. Mitre the ends of the finishing trim and clip onto the finishing base.

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- KEC150LW
- KECFTTLM
- KECFBF
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Window Frame (by other)
- Window Flashing (by other)

E | Window Detail | Head





Mitre ends of the finishing base and fit above the window head flashing. Do the same with the other pieces to form a frame around the window. Starting from the top, secure cladding boards in place.



Cladding boards may need to be cut in order to fit around service box. Mitre the ends of the finishing trim and clip onto the finishing base.

А. В. С. Е. F. G. Н.

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- KEC150LW
- KECFTTLM
- KECFBF
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Window Frame (by other)
- Window Flashing (by other)

F | Stop End Detail





a. Drill drainage holes every 250mm into finishing bracket **b.** Fix finishing base to top hat.

Place the first cladding board over the finishing base. Fix into place.

Clip the finishing trim onto the finishing base.

Concealed ends, screws and fixings.

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- A. KEC150LW
- B. KECFBF
- C. KECFTTLM
- D. Top Hat
- E. Screw (by other)
- F. Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)

G | Service End Penetration





Mitre ends of the finishing base them fix them in place to form a frame around the penetration. Starting from the top, secure cladding boards in place.



Cladding boards may need to be cut in order to fit around service box. Mitre the ends of the finishing trim and clip onto the finishing base.

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- KEC150LW
- KEDSTR
- KAOCC45
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Angle (by other)
- KECFBF
- KECFTTLM

Verticle Cladding.

FLAT BOARDS / SHADOW LINE

Components Installation Guides





Although the following install guides show detailed drawings using the flat cladding board, all installation processes will be the same for the shadow line cladding boards.

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Components.

Starters	Joiner Trims
KEDSTR KECDIMSTR KECSTRBU	100mm 50mm KECJBF KECJTM
Clip	End Trims
KAOCC45	70mm 30mm 65mm KECFBF KECFTTSM KECFTTLM
	Starters

Corner Trims





SLOTTED





SLOTTED





30mm KECFTTSMSLT

65mm KECFTTLMSLT

A | Starter Detail





2.



3.



Secure the starter strip by fixing the cladding clip to the top hat.

Roll the cladding board into position. Butt it up against the starter strip if no space between the boards is desired. Secure board with cladding clip. Screw clip into position.

Repeat steps 2 & 3.





- A. KEC150LW
- B. KEDSTR-SQ
- C. KAOCC45
- D. Top Hat
- E. Screw (by other)
- F. Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)

B | External Corner | Double Sided Trim



Screw male corner piece to existing structure.

Sit the starter strip on the male corner and secure in place with a cladding clip. Roll the cladding board into position. Butt it up against the starter strip if no space between the boards is desired.

* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. Clip the female corner onto the male corner to conceal the cladding boards and fixings.





- A. KEC150LW
- B. KECIECFSLT
- C. KECIECLM
- D. KEDSTR-SQ
- E. KAOCC45
- F. Top Hat
- G. Screw (by other)
- H. Vapour Barrier / Building Envelope (by other)
- I. Building Substructure (by other)

C | Internal Corner





Screw female internal corner piece in place.

Sit the starter strip on the male corner and secure in place with a cladding clip. Roll the cladding board into position. Butt it up against the starter strip if no space between the boards is desired.

* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. Clip the male corner onto the female corner to conceal the cladding boards and fixings.



- A. KEC150LW
- B. KEDSTR-SQ
- C. KECIECF
- D. KECIECLMSLT
- E. Screw (by other)
- F. Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)

D | Top End Detail





52



E | Bottom End Detail





* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation.

- KEC150LW
- KECFBF
- KECFTTLMSLT
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

1.

F | Window Detail | Sill





Mitre ends of the finishing base and fit below the window flashing. Do the same with the other pieces to form a frame around the window. 2.



Work from one side to the other fitting the cladding boards over the finishing base. Cladding boards may need to have a notch taken out to fit around the window.



Cladding boards may need to be cut in order to fit around service box. Mitre the ends of the finishing trim and clip onto the finishing base



3.

А. В. С. Е. F. G. Н.





- KEC150LW
- KECFTTLM
- KECFBF
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Window Frame (by other)
- Window Flashing (by other)

F | Window Detail | Head





Mitre ends of the finishing base and fit above the window head flashing. Do the same with the other pieces to form a frame around the window. Work from one side to the other fitting the cladding boards over the finishing base. Cladding boards may need to have a notch taken out to fit around the window.



Cladding boards may need to be cut in order to fit around service box. Mitre the ends of the finishing trim and clip onto the finishing base.



- KEC150LW
- KECFTTLMSLT
- KECFBF
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Window Frame (by other)
- Window Flashing (by other)

G | Service End Penetration





2.

3.



Mitre ends of the finishing base them fix them in place to form a frame around the penetration. Work from one side to the other fitting the cladding boards over the finishing base. Cladding boards may need to have a notch taken out to fit around the penetration.



Cladding boards may need to be cut in order to fit around service box. Mitre the ends of the finishing trim and clip onto the finishing base.

А. В. С. Е.

с. F. G. H.

- . KEC150LW
- KECFTTLM/KECWFSLT
- KECFBF
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- . Window Frame (by other)
- Window Flashing (by other)

Dimensional Cladding.

Components Installation Guides

BATTEN / SEAM / FIN





Although the following install guide drawings are using the Batten clip in piece, the basic installation principles are the same for the Seam and Fin clip in pieces.

Α	STARTER DETAIL	66
В	EXTERNAL CORNER	68
С	INTERNAL CORNER	70
D	STOP END DETAIL	72
Е	WINDOW DETAIL SILL & HEAD	74

Components.

Dimensional Board	Starters	End Trims
200mm KECDIM200	KEDSTR KECDIMSTR KECSTRBU	Z0mm 30mm 65mm KECFBF KECFTTSM KECFTTLM
Clip Ins	Clip	Joiner Trims
KECDIMU KECDIMBAT KECDIMSEAM KECDIMFIN	KAOCC45	100mm KECJBF 50mm KECJTM
Corpor Trimo		

Corner Trims







45mm KECIECFSLT

ENDCAPS

Matching aluminium endcaps are offered to suit the batten clip in (KECDIMBAT). The endcaps are a press fit design. Supply of endcaps with counter sunk screw holes is optional.

SLOTTED		
30mm KECFTTSMSLT	65mm KECFTTLMSLT	
SLOTTED		
50mm		
KECITMISLI		

A | Starter Detail





Fix the starter strip to the top hat.

Roll the dimension cladding into place and butt it up against the starter strip. Fit the cladding clip and fix to the top hat. Clip the 38mm batten in place. Note: The installation is the same for the seam and fin. Repeat steps 2 & 3.





- KECDIM200
- KECDIMBAT
- KECDIMSTR
- KAOCC45
- Top Hat
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

B | External Corner | Double Sided Trim





Screw male corner piece to existing structure.

Screw dimensional board over male corner piece.

Clip female corner piece onto male piece to conceal cladding board edges, screws and fixings.

А. В. С. Е. F. G. Н.





- KECDIM200
- KECIECF
- KECIECLM
- KECDIMBAT
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

C | Internal Corner | Double Sided Trim



H

F

G



Screw female corner piece to existing top hat framing.

Screw dimensional board over female corner piece.

Clip male corner piece onto male piece to conceal cladding board edges, screws and fixings. А. В. С. Е. F. G.





- KECDIM200
- KECIECF
- KECIECLM
- KECDIMBAT
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- H. Building Substructure (by other)

D | Stop End Detail | Batten, Seam, Fin & Infill Clip In



Screw female finishing piece into position.

Use a cladding clip to secure dimensional board over the female finisher.

* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. Clip in Battens, leaving a 16mm gap from the end of the dimensional board.

Use countersunk screws to secure 'L' piece onto dimensional board.

Seam, Fin & Infill Clip In.

Use 50x12mm 'L' piece to cover ends of the Seam and Fin Clip In pieces. Clip male finishing piece on to female to conceal ends, screws and fixings.





- KECDIM200
- KECDIMBAT
- KECFBF
- KECFTTLM
- KEGA2520 (KEGA5012 for Seam & Fin)
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Screw (by other)
- Countersunk Screw (by other)

E | Window Detail | Sill & Head





First screw female finisher around window edge.

Place dimensional boards over female finisher. Using cladding clips, secure boards to top hat framing.

* Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. Use countersunk screws to secure 'L' piece onto dimensional board. Clip male finishing piece on to female to conceal ends, screws and fixings.

K.



KECDIM200

- KECDIMBAT
- KECFBF
- KECFTTLM
- KEGA2520 (KEGA5012 for Seam & Fin)
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)
- Window Framing (by other)
- Countersunk Screw (by other)

Soffits.

FLAT BOARDS

Components Installation Guides





Α	STARTER DETAIL	80
В	STOP END DETAIL	82
С	END TRIM DETAIL	84

Components.

Traditional Boards	Starters	Joiner Trims		
100mm KEC100	KEDSTR KECDIMSTR KECSTRBU	100mm 50mm KECJBF KECJTM		
150mm KEC150	Clips	End Trims		
200mm KEC200				
150mm KECSHIP150	KAOCC45	Image: Constraint of the second se		

Corner Trims



SLOTTED



45mm KECIECFSLT

ENDCAPS

Matching aluminium endcaps are offered to suit all batten shapes and sizes. The endcaps are a press fit design. Supply of endcaps with counter sunk screw holes is optional.

A | Starter Detail

Screw starter piece onto top hat frame.

Slide soffit board into position. Butt board flush with starter for no gaps or leave space if desired. Secure board with soffit clip. Screw clip into position.

Repeat steps 2 & 3.

А. В. С. Е. F.

A	

- KEC150
- KEDSTR
- KAOCC45
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- G. Building Substructure (by other)

B | Stop End Detail

Screw female finishing piece into position.

Cut last soffit board so that it butts up to finishing piece.

Clip male finishing piece on to female.

Concealed ends, screws and fixings.

А. В. С. Е. F. G.

(C)

В

- KEC150
- KECFBF
- KECFTTLM
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- Building Substructure (by other)

C | End Trim Detail

Screw female finishing piece into position.

Cut soffit board* and sit it over finishing piece.

Clip male finishing piece on to female.

Concealed ends, screws and fixings.

 * Allow for expansion and contraction when cutting cladding boards. See page 13 for a more detailed explanation. A. B. C. E. F. G.

	3			
			ק ק	

- KEC150
- KECFBF
- KECFTTLM
- KWACC
- Top Hat Framing (by other)
- Screw (by other)
- Vapour Barrier / Building Envelope (by other)
- H. Building Substructure (by other)

Tests, Reports & Documentation

National Construction Code Of Australia Compliance Statement For Knotwood Cladding Systems

The National Construction Code of Australia (NCC) details the minimum necessary requirements for safety, health, amenity and sustainability that need to be met in the design and construction of new buildings (and new building work in existing buildings) throughout Australia.

Using products that do not conform to the NCC requirements can leave installers, builders and suppliers liable for cost of replacement, rectification and consequential damages. Knotwood Cladding products have been developed, tested and manufactured to not only meet our country's demanding climatic and geographic requirements but also to provide building designers, builders and owners with the confidence that comes from using guaranteed compliant products.

The compliance statements below outline compliance of Knotwood with both the National Construction Code of Australia and the relevant Australian Standards for both Residential and Non-residential buildings.

The NCC outlines deem-to-satisfy requirements for aluminium claddings based on compliance to Australian standards. Whilst the applicable Australian standards differ between Residential and Non-Residential buildings the underlying common tenants are;

> a) that installed metal claddings and structural elements must be able to meet expected Structural, Wind and installation loads as per the Australian Standards.

> b) that installed metal claddings must be sufficiently durable to meet the amenity and sustainability requirements of the Australian Standards.

To determine aluminium cladding's capacities and ability to comply with Australian design standards, metal cladding products must be tested in accordance with AS 4040.1.

Metal Cladding products that cannot demonstrate testing to AS 4040.1 and compliance with relevant AS 4100 and AS/NZS provisions do not meet the deemed-to-comply provisions of the NCC.

Knotwood Cladding And Soffit Board Fixings

All Knotwood board fixings have been tested to comply with Australian Building Standards. Tests have been undertaken in accordance with the following Australian Standards and conditions:

AS/NZS 1170.0-2002

AS/NZS 1170.0-2002 Structural design actions Part 1: Permanent, imposed and other actions

 AS/NZS 1170.0-2011 .

Conditions:

Wind Average recurrence interval of 500 years Terrain Category 2 Building Height < 20m Shielding and Topographic Multiplier Ms and Mt taken as 1.0 Local pressure factor K1 taken as 2.0

Knotwood Component Fixings

Tests have been undertaken in accordance with the following Australian Standards and conditions:

- AS/NZS 1170.0-2002
- AS/NZS 1170.0-2002
- AS/NZS 1170.0-2011
- AS 1664.1-1997 Aluminium Structures

Conditions:

Terrain Category 2 Building Height < 20m Local pressure factor K1 taken as 2.0

AS 1562.1—2018 provides updated detail on best practice design and installation techniques for metal roofing and wall cladding.

Most of the new changes relate to engineering specifics such as material quality and fastening techniques, and testing standards. The revised standard also covers important load bearing aspects such as frictional drag in wind, and material behaviour under snow loadings and it is applicable to both cyclone and non-cyclone regions

All architectural panels, cladding and soffit types manufactured by Knotwood are tested and fully certified to the new AS 1562.1:2018 standard.

AS 1562.1-2018

Structural design actions Part 0: General principles

Structural design actions Part 2: Wind actions

AS 1664.1-1997 Aluminium Structures

Structural design actions Part 0: General principles Structural design actions Part 1: Permanent, imposed and other actions Structural design actions Part 2: Wind actions

Wind Average recurrence interval of 500 years

Shielding and Topographic Multiplier Ms and Mt taken as 1.0

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