TRAINING MANUAL

Version 1.1 Septem<u>ber 2021</u>



<u>ΛL:RΛ:L | ΛL:CLΛ:D | ΛL:PΛVE</u>

NAZCA





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INTRO



WHO WE ARE



Milwood Group have been servicing the UK market for many years and supplying UK companies with aluminium outdoor living products to the home improvement sector.

The AliDeck System is a family of configurable aluminium metal decking products, including decking boards, joists, pedestals and accessories.

With all elements of the AliDeck System being inter-compatible, total flexibility is provided to cope with any balcony, terrace or walkway decking situation.

AliDeck is committed to providing total peaceof-mind to our customers when committing to use our range of aluminium metal decking products in their projects.

Additionally, we have developed a full suite of detailed technical datasheets to assist you when specifying the AliDeck System.

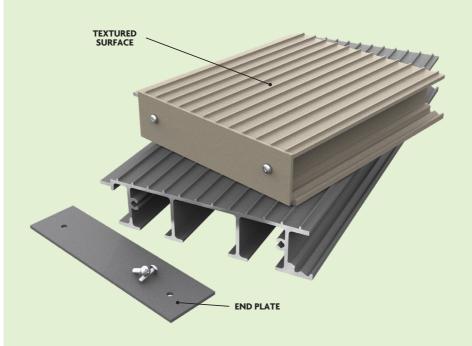
We are also proud to offer a 30-year manufacturer product warranty for all of our AliDeck System components.

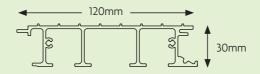
Datasheets, safety test results, and other technical detail is available on our website at www.alideck.co.uk/downloads



THE ALIDECK SYSTEM

INTERLOCKING BOARD

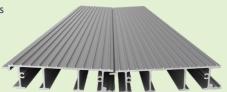




INTERLOCKING BOARD

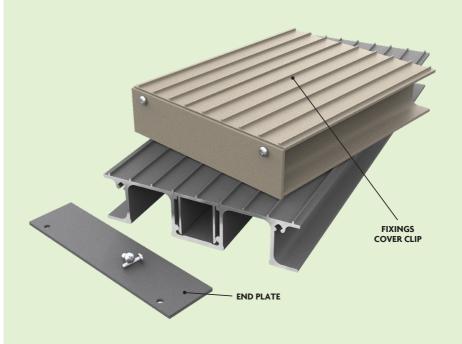
The AliDeck Standard Interlocking Board is our original non-combustible aluminium balcony decking product, offering a seamless deck and fully tested for Fire, Slip, and Wear Resistance.

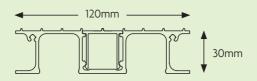
- Fire Resistance: A2-s1, d0 and A2fl-s1
- Slip Resistance Risk: Wet: Low Dry: Low
- Span: Up to 1200mm
- Weight: 1.865kg per linear metre
- Standard Stock Lengths: 6m & 4m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range



Notes

SENIOR BALCONY BOARD





SENIOR BALCONY BOARD

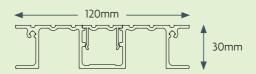
The AliDeck Senior Balcony Boards are 30mm in height and are our premium non-combustible aluminium balcony decking product, with excellent spanning capabilities and fully tested for Fire, Slip, and Wear Resistance.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Slip Resistance Risk: Wet: Low Dry: Low
- Span: Up to 1000mm
- Weight: 2.105kg per linear metre
- Standard Stock Lengths: 6m & 4m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

SENIOR BALCONY FLAT BOARD





SENIOR BALCONY FLAT BOARD

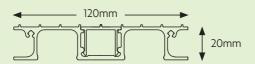
The AliDeck Senior Balcony Flat Boards are 30mm in height and are our premium non-combustible aluminium balcony decking product, with excellent spanning capabilities and fully tested for Fire, Slip, and Wear Resistance.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Slip Resistance Risk: Wet: Low Dry: Low
- Span: Up to 1000mm
- Weight: 2.105kg per linear metre
- Standard Stock Lengths: 6m & 4m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

JUNIOR BALCONY BOARD





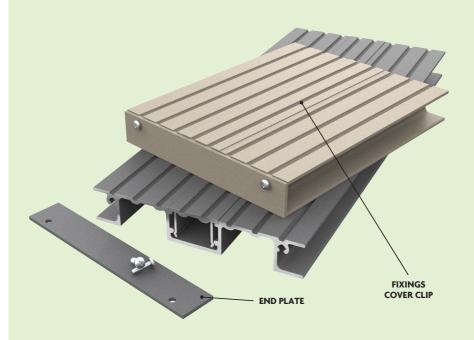
The AliDeck JUNIOR BALCONY BOARD

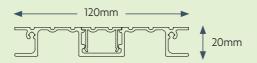
The AliDeck Junior Balcony Boards are 20mm in height and are our premium non-combustible, low profile aluminium balcony decking product, with excellent spanning capabilities and fully tested for Fire, Slip, and Wear Resistance.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Slip Resistance Risk: Wet: Low Dry: Low
- **Span:** Up to 600mm
- Weight: 1.58kg per linear metre
- Standard Stock Lengths: 6m & 4m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

JUNIOR BALCONY FLAT BOARD





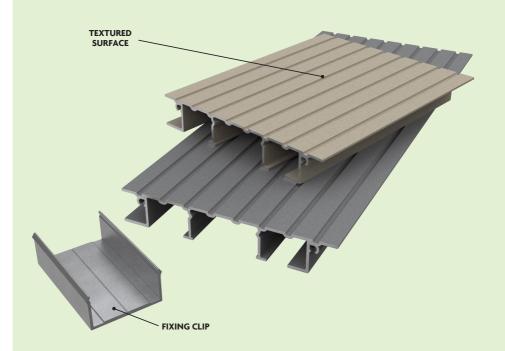
The AliDeck JUNIOR BALCONY FLAT BOARD

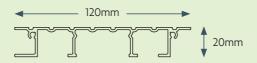
The AliDeck Junior Balcony Flat Boards are 20mm in height and are our premium non-combustible, low profile aluminium balcony decking product, with excellent spanning capabilities and fully tested for Fire, Slip, and Wear Resistance.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Slip Resistance Risk: Wet: Low Dry: Low
- Span: Up to 600mm
- Weight: 1.58kg per linear metre
- Standard Stock Lengths: 6m & 4m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

LITE BALCONY BOARD





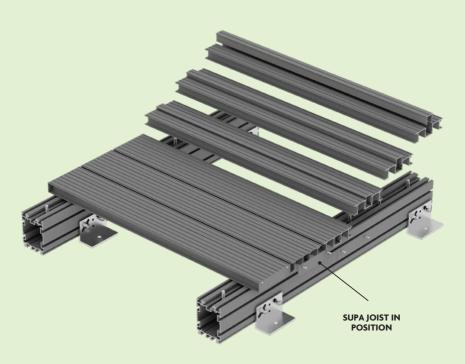
The AliDeck LITE BALCONY BOARD

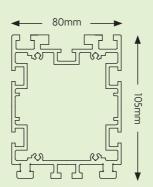
The AliDeck Lite Board is our low-profile, cost-effective non-combustible aluminium balcony decking product, designed specifically for the retrofit and replacement market.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Slip Resistance Risk: Wet: Low Dry: Low
- **Span:** Up to 400mm
- Weight: 1.36kg per linear metre
- Standard Stock Lengths: 6m & 4m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

SUPA JOIST





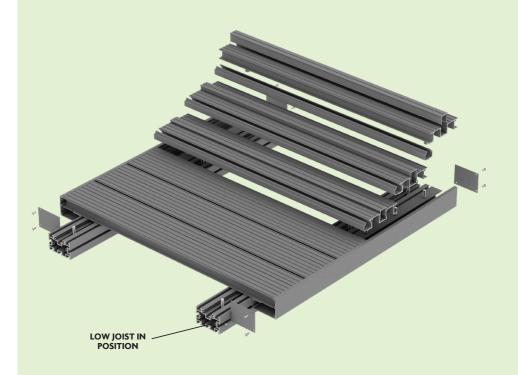
The AliDeck SUPA JOIST

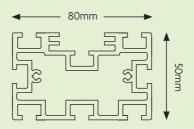
The AliDeck Supa Joist is our heavy-duty joist option, designed to act as both a support post and a large-spanning joist. Compatible with all AliDeck decking boards and fully compliant with fire regulations.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- **Span:** Up to 3000mm
- Weight: 4.93kg per linear metre
- Standard Stock Lengths: 6m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

The AliDeck LOW JOIST





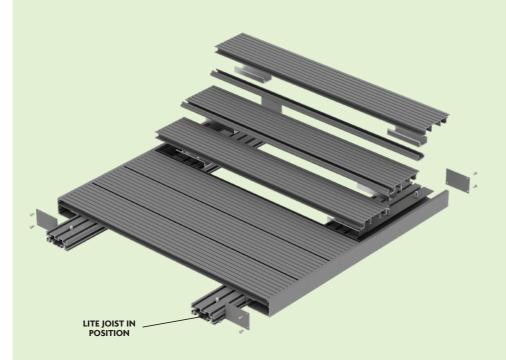
The AliDeck LOW JOIST

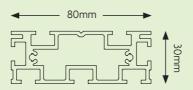
The AliDeck Low Joist is our low-profile joist option, designed to act as both a support post and a large-spanning joist. Compatible with all AliDeck decking boards and fully compliant with fire regulations.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- **Span:** Up to 1200mm
- Weight: 3.11kg per linear metre
- Standard Stock Lengths: 6m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

The AliDeck LITE JOIST





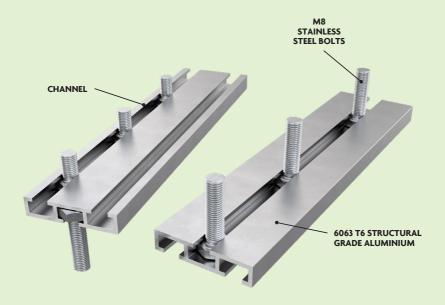
The AliDeck LITE JOIST

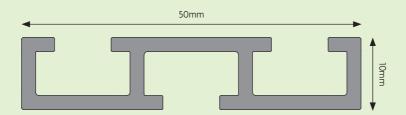
The AliDeck Lite Joist is our low-profile, cost-effective joist option, designed specifically for the retrofit and replacement market. Compatible with all AliDeck decking boards and fully compliant with fire regulations.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Span: Up to 800mm
- Weight: 1.926kg per linear metre
- Standard Stock Lengths: 6m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

TRIPLE BOLT CHANNEL





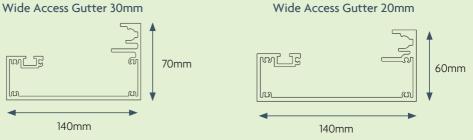
The AliDeck TRIPLE BOLT CHANNEL

The AliDeck Triple Bolt Channel is our clever fixing solution to avoid the need to drill the balcony steel frame for each decking board. Designed for the AliDeck Senior and Junior Decking Boards.

- Fire Resistance: A1
- **Dimensions:** 10mm x 50mm
- Standard Stock Lengths: 6m
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Mill Finish

Notes

BALCONY BOARD ACCESS GUTTER COVER DRAINAGE DRAINAGE CHANNEL 5mm **GUTTERING END CAP** 30mm 245mm Standard Access Gutter **Access Gutter Cover** 70mm 100mm



The AliDeck BALCONY DRAINAGE SYSTEM

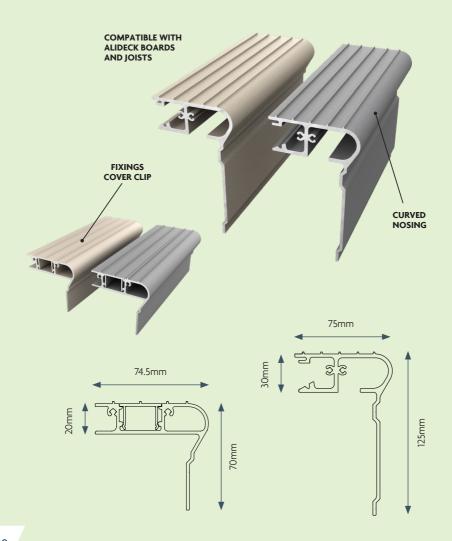
Senior Channel 28mm 32mm Junior Channel

The AliDeck Balcony Drainage System comprises our Drainage Channel and Drainage Gutter to effectively capture and redirect fluids from the deck surface to a desired drainage point. A positively-drained complete water-management solution, the Balcony Drainage System aids in achieving controlled drainage.

- Fire Resistance: A2-s1, d0 and A2fl-s1
- Standard Stock Lengths: 6m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range

Notes

The AliDeck NOSING PROFILE



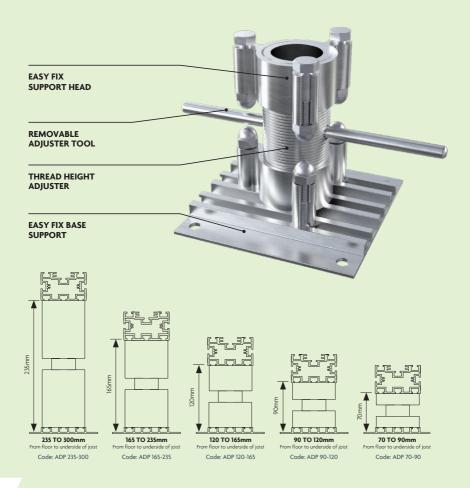
The AliDeck NOSING PROFILE

The AliDeck Nosing Profile is our non-combustible aluminium decking accessory designed to allow for tidy finishing and edge protection. Compatible with all AliDeck extrusions, the Nosing Profile offers excellent system flexibility.

- Fire Resistance: A2-s1, d0 and A2f1-s1
- Standard Stock Lengths: 6m
- Coating Thickness: 60-80 microns
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Full Range and Mill Finish

Notes

ADJUSTABLE PEDESTAL



ADJUSTABLE PEDESTAL

The AliDeck Adjustable Pedestal is our innovative joist support pedestal, offering a large range of height adjustments to ensure level and robust decking installation.

• Fire Resistance: A1

Height Range: 50mm to 500mm
Base Diameter: 120mm x 120mm

• Warranty: 30 years

• Life Expectancy: 60 years

• Colours: Mill Finish

Notes

MULTI-DIRECTIONAL ADJUSTABLE PEDESTAL



MULTI-DIRECTIONAL ADJUSTABLE PEDESTAL

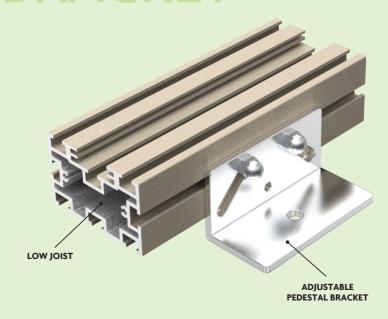
The AliDeck Multi-Directional Adjustable Pedestal is our innovative joist support pedestal, offering adjustments in all directions to ensure level and robust decking installation.

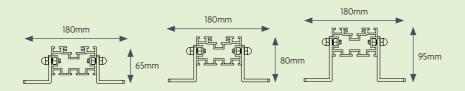
- Fire Resistance: A1
- Height Range: 70mm to 300mmBase Diameter: 120mm x 120mm
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Mill Finish

Notes

The AliDeck

ADJUSTABLE PEDESTAL BRACKET





The AliDeck

ADJUSTABLE PEDESTAL BRACKET

The AliDeck Adjustable Brackets are our solution for installations where a low threshold is required and is compatible with all AliDeck joists.

- Fire Resistance: A1
- Height Range: 70mm to 125mm
 Base Diameter: 100mm x 50mm
- Warranty: 30 years
- Life Expectancy: 60 years
- Colours: Mill Finish

Notes

ection 3

INSTALLATION

3

TOOLS REQUIRED FOR INSTALLATION

- 1. Chop saw with aluminium blade, recommended 60 to 80 tooth
- 2. Measuring tape
- 3. Cordless drill
- 4. HSS drill bits 5mm, 8mm, 10mm
- 5. No2 Pozi screw driver bit
- 6. 13mm ratchet socket and driver
- 7. 4.5" / 5" grinder with thin metal cutting disc
- 8. Aluminium cutting arbor bit for cutting circles
- 9. White / non-marking rubber mallet
- 10. Roofing square
- 11. Spirit level
- 12. Masking tape (if cutting and/or painting of cut edges is required)

FIXINGS SUPPLIED AS FOLLOWS:

- M8 x 16mm bolts for bolting the decking in place when using the Triple Bolt Channel, the Supa Joist or the Low Joist
- 2. 4mm No 8 stainless steel domed headed machine screws for fixing the end plates to the boards if required
- 3. Fine thread and coarse thread self-drilling screws with rubber washers (to fix to steelwork or joists)

FIXINGS NOT SUPPLIED AS FOLLOWS:

We do not supply fixings to screw the decking to timber (you can use any standard wood screws for this)

We do not supply bolts for bolting the Triple Bolt Channel down.

We do not supply bolts for bolting the feet down

TOUCH UP PAINT SUPPLIED:

Please be aware this paint is just a touch up paint, if boards are damaged any more than 5% please replace boards with a new board rather than coating the whole board.

Application methods;

- 1. Spray touch up paint, recommended for spraying the edges of the cut boards.
- 2. Brush on touch up paint, recommended for touching up scratches.

IMPORTANT GUIDANCE NOTES FOR INSTALLATION

- 1. Care of product on site: Please ensure that, once unpacked, the AliDeck products are protected and stacked in an appropriate way to prevent any damage prior to installation.
- 2. When installing balcony boards ensure a minimum of 3mm to a maximum of 8mm (we recommend 5mm) is allowed between each board for drainage.
- 3. When installing onto waterproofing, ensure adequate spreader plates or additional padding is added between the underside of the foot plate and the waterproofing. AliDeck cannot be held responsible for penetration or damage to existing waterproofing. If unsure of application please contact us.
- 4. Fix all boards within the below span requirements allowed, do not exceed the span requirements for each type of board, please refer to the span tables, contact us for further details if unsure.
- 5. When cutting boards to width, never cut a board less than the centre section of 30mm as the cover clip will not be able to be installed. Consider cutting the first and the last board if required to obtain the desired overall platform width.
- 6. Please ensure the decking is covered with a barrier (plywood or plastic material) once installed to prevent any third party debris, swarf or waste material from potentially damaging the surface finish. Please remove any swarf from the decking immediately to prevent damage.
- If installing onto existing timber please ensure you have a clear 150mm of air gap underneath the decking to ensure good airflow and prevent heat build-up.

PRELIMINARY STAGES AND PLANNING

MAXIMUM ALLOWABLE SPANS

Please ensure the below spans (centre to centre) are adhered to, if unsure please contact AliDeck.

ALIDECK DECKING BOARDS

Senior Board: 1000mm

Junior Board: 600mm

Lite Board: 400mm

XL Board: 2000mm

The maximum span values for AliDeck Decking Boards were determined following deflection testing in accordance with BS8579:2020, with a criteria of no more than 5mm deflection under a 2.0kN point load.

ALIDECK JOISTS

Supa Joist: 3000mm

Low Joist: 1200mm

Low Joist On Side: 1500mm

Lite Joist: 800mm

Micro Joist: 300mm

The maximum span values for AliDeck Joists were determined following deflection testing in accordance with BS EN 1991-1-1, with a criteria of no more than L/360 deflection under a 1.4kN point load.

GENERAL GUIDANCE:

CUTTING BOARDS TO WIDTH:

Recommended tool: An electric chop saw with an aluminium blade. Ensure Full PPE is worn, including gloves, goggles and ear defenders.

- **Step 1:** Fix the boards down to a sturdy base
- **Step 2:** Using a fence on the edge of the circular saw, set the fence to the required depth.
- **Step 3:** Mark the boards using a sharpie or similar pen that is clearly visible.
- **Step 4:** Then cut the board.
- **Step 5:** Now use the deburring tool, or sand or file the edge of the board to remove any sharp edges.
- **Step 6:** Now mask the edge of the board to protect the top surface from over spray.
- **Step 7:** Now coat the edge of the board (3 coats) using the colour matched spray can provided.
- **Step 8:** Remove the masking tape.

CUTTING BOARDS TO LENGTH:

Recommended tool: Chop saw with a aluminium blade. Ensure Full PPE is worn, including gloves, goggles and ear defenders.

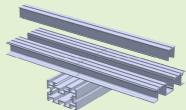
- **Step 1:** Using a circular rip saw simply ensure the boards are clamped adequately to a bench or tressle and cut at the angle required.
- **Step 2:** Now use a deburring tool, or sand or file the edge of the board to remove any sharp edges.
- **Step 3:** Now mask the edge of the board to protect the top surface from over spray.
- **Step 4:** Now coat the edge of the board (3 coats) using the colour matched spray can provided.
- **Step 5:** Remove the masking tape.

CUTTING AROUND DOWN PIPES, OUTLETS AND CABLES ETC:

Recommended tool: A grinder with a thin metal cutting disc, a metal cutting arbor or hole saw. Ensure Full PPE is worn, including gloves, goggles and ear defenders.

- **Step 1:** Using the board to be installed either measure the position of the pipe, cable or obstacle, mark using a sharpie or similar pen that is clearly visible, mark the board.
- **Step 2:** Fix the boards down to a sturdy base to prevent it moving.
- **Step 3:** Then using the correct size metal arbor or hole saw cut the radius shapes on the board, then cut the straight sections using the grinder with a thin disc.
- **Step 4:** Now use a deburring tool, or sand or file the edge of the board to remove any sharp edges.
- **Step 5:** Now mask the edge of the board to protect the top surface from over spray.
- **Step 6:** Now coat the edge of the board (3 coats) using the colour matched spray can provided.
- **Step 7:** Remove the masking tape.

JOINING ALIDECK BOARDS TOGETHER:



Always join a decking board over the top of either a Joist, a Triple Bolt Channel or a steel bearer, and ensure you stagger the top clip in cap if possible.

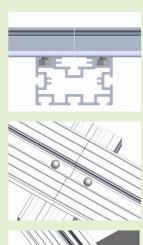
When joining over the top of a Joist please ensure that both bolt channels on the top of the joist are used, one bolt channel for the left side of the join and the other for the right side of the join, then ensure the two boards are aligned, then clip in the cover across the two boards to help to align the two boards.

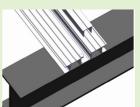
JOINING USING LOW JOIST OR SUPA JOIST:

- Step 1: Measure from the end of the deck board 30mm into the centre of the board and mark using a sharpie or visible pen, then drill the board using a 5mm HSS drill bit as a pilot, then using a HSS 10mm drill bit drill the hole.
- **Step 2:** Repeat the process on the opposite board.
- **Step 3:** Bolt the two boards into position and align the two boards.
- **Step 4:** Then install the clip over the top of the join so that you stagger the joints between the board and the clip as much as you can.

JOINING ONTO A STEEL BEARER USING SELF-DRILLING SCREWS:

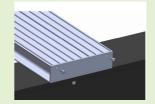
- **Step 1:** Drill a 6mm hole into the centre of the board, 20mm from the end of the board.
- **Step 2:** Then fix the boards down using supplied self-drilling screws with rubber washer.
- **Step 3:** Repeat the process on the opposite board, ensuring the boards are exactly aligned.
- **Step 4:** Screw the two boards into position.
- **Step 5:** Then install the clip over the top of the join so that you stagger the joints between the board and the clip as much as you can.





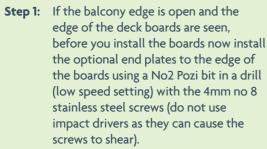
METHOD OF INSTALLATION

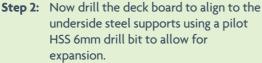
Please check all parts are present prior to installation process. Refer to CAD drawing (if applicable) to ensure you have all materials required. Check all components supplied for damage and for quality. Please report any issues immediately to AliDeck.



Installation of boards onto a steel balcony using self-drilling screws.

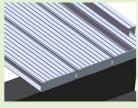
As a guide first check the space you have for each board to ensure you can cut the last board to the correct size, (you may need to cut the first and the last board to obtain the correct amount of coverage) the minimum cut width of a board is 30mm but consider a cut on the first board too if required. Never cut the centre section of the board as the clip will not fit.

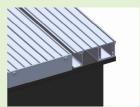




Step 3: Once fixed along the board now install the top fix in cover using a rubber nonmarking mallet.

Step 4: If you have trimmed the last board please follow the cutting guidance note above.





METHOD OF INSTALLATION CONTD.

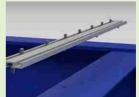
INSTALLATION OF BOARDS ONTO STEEL BALCONY USING THE TRIPLE BOLT CHANNEL:

As a guide first check the space you have for each board to ensure you can cut the last board to the correct size, (you may need to cut the first and the last board to obtain the correct amount of coverage) the maximum off cut, including saw blade is 30mm, leaving the central fixing channel intact but consider a cut on the first board too if required. Never cut the centre section of the board as the clip will not fit.

Step 1: Cut the Triple Bolt Channel to the correct length, when measuring allow for the number of deck boards and the gaps you require between the boards, make the Triple Bolt Channel the same length as the boards plus the gaps.



Step 2: Then fix the Triple Bolt Channel to the steel work using the single bolt channel facing down and the double bolt channels facing up, bolt to the steel work using the correct length bolts.



Step 3: Now slide the correct number of bolts sufficient to bolt down all full width boards and part width boards into either one of the bolt channels with the treads facing up.



Step 4: If the balcony edge is open and the edge of the deck boards are seen, before you install the boards now install the optional end plates to the edge of the boards using a No2 Pozi bit in a drill (lowest speed setting) with the 4mm no 8 stainless steel screws (do not use impact drivers as they can cause the screws to shear).

Step 5: Now drill the deck board to align to the Triple Bolt Channel using a pilot HSS 5mm drill bit and then a 10mm HSS drill bit, then fix the boards to the Triple Bolt Channel using a socket spanner or nut runner.



Step 6: Once fixed along the board now install the top fix in cover using a rubber non-marking mallet.



Step 7: Repeat the process along the whole deck platform ensuring you leave the required space between each board for drainage (we recommend 5mm gap).

Step 8: If you have trimmed the last board please follow the cutting guidance note above.

INSTALLATION OF BOARDS ONTO LOW JOIST, SUPA JOIST AND LITE JOIST USING EITHER ADJUSTABLE PEDESTALS OR ADJUSTABLE BRACKETS:

Step 1: Firstly attach your adjustable pedestals or brackets to the Supa Joist, Low Joist or Lite Joist as shown, be sure to check the span charts.

Insert the bolts provided into the pedestals to enable you to tighten them up.



Step 2: Tighten into position as shown using a 13mm spanner.



Step 3: Now insert a screwdriver or suitable tool into the hole in the threaded section of the centre of the pedestal to adjust up or down to level the platform.

METHOD OF INSTALLATION CONTD.

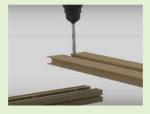
INSTALLATION OF BOARDS ONTO LOW JOIST, SUPA JOIST OR LITE JOIST USING EITHER ADJUSTABLE PEDESTALS OR ADJUSTABLE BRACKETS:

- **Step 4:** Now level each of your Joists using a spirit level.
- **Step 5:** Now slide the correct number of bolts into either one of the channels in the top of the joist.
- Step 6: Now drill the deck board to align to the joist channel using a pilot HSS 5mm drill bit and then a 10mm HSS drill bit, then fix the boards to the Joist using a socket spanner.
- **Step 7:** Once fixed along the board now fix the top clip in cover using a rubber non-marking mallet.





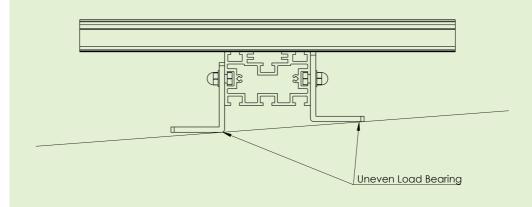




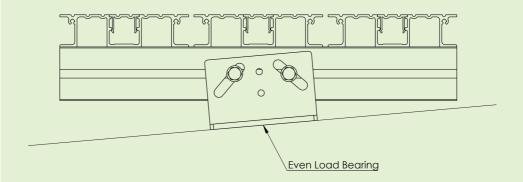


CORRECT USAGE OF ADJUSTABLE PEDESTAL BRACKETS

INCORRECT



CORRECT

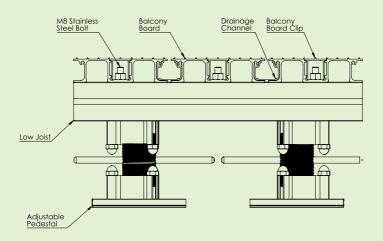


INSTALLATION OF THE ALIDECK BALCONY DRAINAGE SYSTEM

GUIDANCE NOTES:

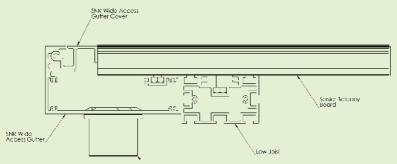
- Please ensure the gutters are clean dry and free from dust and dirt prior to installation.
- 2. Please ensure you do not exceed the span requirements for fixing points on the boards (see span chart).
- **3.** Ensure you only use approved recommended gutter sealers when sealing the gutters, such as Sikaflex (supplied by AliDeck).
- **4.** Consider that you may require a key stone board in the centre of the platform to remove a board.
- **Step 1:** Install the first deck board.
- **Step 2:** Using the Sikaflex sealer, please apply a liberal bead of sealer along the side of the deck board.
- **Step 3:** Simply push or tap the drainage channel with a rubber mallet until the drainage channel is pushed all of the way into the edge of the deck board.
- **Step 4:** Now add a liberal bead of sealer on to the edge of the next board to ensure you have a continuous bead of sealer and install the board ensuring it is pushed as far into the channel as it will go.
- **Step 5:** Repeat the process ensuring you do not install the centre clips into the boards at this point.
- **Step 6:** Once all of the drain channels are installed now it's time to install your drainage gutter at the ends of the boards.
- **Step 7:** Once you have cut your gutter to the correct length you need to add the end caps and the spigot outlet (using a 55mm arbor) and seal all corners using the Sikaflex sealer we supply.
- Step 8: Then you need to fix your gutter into position, to do this simply clamp the gutter channel onto the end of the boards and drill a 3mm hole though the centre of the board and through the horizontal lip on the gutter and using a self-driller fix into position, or a 8mm hole if using Access Gutter and bolts.
- **Step 9:** Repeat the process on both ends of the deck platform if required.

INSTALLATION OF THE ALIDECK BALCONY DRAINAGE SYSTEM CONTD.

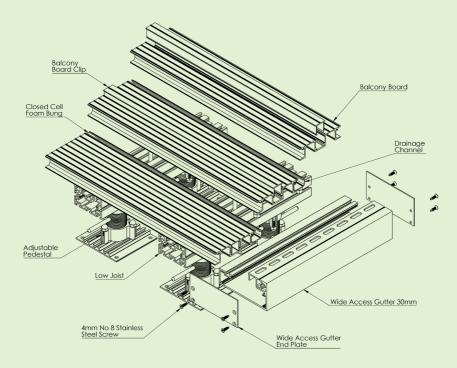


CROSS SECTION VIEW

Spigot Assembly



CROSS SECTION VIEW

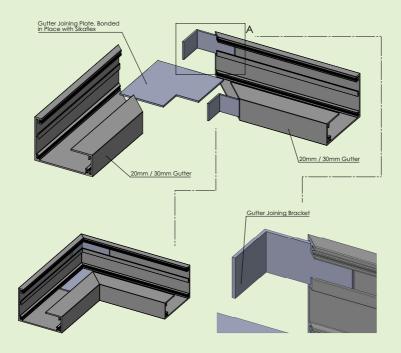


EXPLODED VIEW

JOINING GUTTERS AT 45° CORNERS

FOR INSTALLATIONS THAT REQUIRE THE GUTTER TO TURN CORNERS, PLEASE USE THE FOLLOWING METHOD.

- **Step 1:** Cut gutters to length and mitre corners. Insert drainage outlet spigot at desired point if required (having taken into account matching to a downpipe through the steelwork).
- Step 2. Install first mitred gutter to board.
- **Step 3:** Install Joining Plates 1 & 2 into appropriate channels as shown using Sikaflex sealer.
- **Step 4:** Install second mitred gutter to board, slotting onto Joining Plates, ensuring to apply a continuous bead of Sikaflex sealer around the edge of all Joining Plates and gutters.
- **Step 5.** Fix each Joining Plate through the vertical face of the Gutter using an appropriate fixing.



TEST EVIDENCE & CERTIFICATION

4

FIRE RESISTANCE

AliDeck is dedicated to producing non-combustible, fire-resistant aluminium decking systems to ensure safety and full compliance with legislation.

Independently tested to EN 13823, EN 13501 and EN ISO 1716, the AliDeck System achieves Fire Ratings of A2-s1, d0 and A2fl-s1, satisfying all fire-safety legislation and ensuring compliance for new build and renewal projects. The Euroclass ratings have several elements which each indicate a performance rating. The first element is regards combustibility and is rated from A to F, with A representing non-combustible materials. The second element relates to smoke emission level and is rated 1 to 3, with 1 indicating smoke emission as weak or absent. The third element relates to production of flaming droplets and is rated 0 to 2, with 0 indicating no droplets produced. Finally, the inclusion of "f1" indicates that the products have been specifically tested for flooring applications.

We have also submitted our paint/powder-coating to combustibility testing, with a selection of finishes (Gloss, Matte, Satin) of a single colour being tested to prove the non-combustibility of the entire paint range, achieving A2-s1. d0 and A2fl-s1.

AliDeck is proud of our record on safety and are delighted to share our test result data. With our key fire test results represented over the following pages, our complete test results are available at

www.alideck.co.uk/downloads



SLIP RESISTANCE

AliDeck recognises that safety extends beyond simply achieving compliance with fire legislation and that all aspects of safe use of our products must be demonstrated. Accordingly, we have submitted all AliDeck decking boards to slip resistance testing.

Independently tested to BS7976 Part 2, the AliDeck System was subjected to Calibrated Certificated Portable Pendulum Instrument tests in three different directions in wet and dry conditions. All AliDeck boards were found to pose a "Low Risk" for slips in all conditions, the highest rating achievable.

Further explanation of these tests can be found at www.alideck.co.uk/slip-resistance-tests/

AliDeck is proud of our record on safety and are delighted to share our test result data. With our key slip test results represented over the following pages, our complete test results are available at

www.alideck.co.uk/downloads



Please refer to the Certificates & Test Evidence brochure that can be found on our website.



WEAR RESISTANCE

AliDeck is passionate about producing products that are not only safe but are able to sustain decades of reliable use. As such, we have submitted all AliDeck decking boards to accelerated wear testing.

Independently tested to SATRA TM391:2016, the AliDeck System was subjected to Biomechanical Abrasion Of Flooring Materials testing. With 100,000 footfalls simulated by a Standard Shoe machine apparatus and with observations made at every 25,000 footfalls, no wear of the AliDeck board surface was recorded at all and only "Very Slight" sole marking was observed after 100,000 footfalls. For reference, 100,000 footfalls is the equivalent of a person taking 10 steps on their balcony every day for 27 years. Additionally, AliDeck boards were submitted to the "Chair Leg" Wear Test, recording no effect other than "Very Slight" transfer of brass with 70KG and 100KG mass applied.

AliDeck is proud of our record on safety and are delighted to share our test result data. With our key wear resistance test results represented over the following pages, our complete test results are available at www.alideck.co.uk/downloads.





Please refer to the Certificates & Test Evidence brochure that can be found on our website.

DEFLECTION RESISTANCE

AliDeck take structural integrity of our products very seriously as it underpins all aspects of safety and durability.

We have tested our decking boards for deflection in line with the requirements of BS8579:2020, Guide to the design of balconies and terraces. The Standard states that "for occupant comfort" the balcony pedestrian surface should deflect less than 5mm under a 2.0kN point load.

All AliDeck boards met this requirement at their recommended spans.

ALIDECK WARRANTY

AliDeck are proud to offer an up to 30 year warranty for all of our products. The full warranty document is available at **www.alideck.co.uk/downloads**, please read closely for full terms and conditions.



MAINTENANCE

5

SECTION 1

GENERAL PRODUCT INFORMATION AND ADVICE

AliDeck aluminium decking is constructed from high grade aluminium to ensure it is fit for purpose and that it functions for many years. To help the maximum life expectancy to be achieved, we have created this manual to help you understand the maintenance requirements along with important instructions which should be followed at all times.

AliDeck products are supplied to designs and specifications that have been proven through years of installation and development.

QUALICOAT - PROTECTIVE POWDER COATING

The AliDeck system uses a powder coating process called QUALICOAT which is a quality label organisation committed to maintaining and promoting the quality of coating on aluminium and its alloys for architectural applications.

BS 6496:1984: Specification for powder organic coatings for application and stoving to aluminium alloy extrusions, sheet and preformed sections for external architectural purposes, and for the finish on aluminium alloy extrusions.

AliDeck extrusions are finished using the following EN standards:

- EN 12206-1:2004: Paints and varnishes. Coating of aluminium and aluminium
 alloys for architectural purposes. Coatings prepared from coating powder.
- EN ISO 2409:2013: Paints and Varnishes, Cross Cut Test.

The QUALICOAT quality department also performs the following tests on powder coated profiles:

- QUALICOAT 2.1: Visual inspection at 3 metres for internal and 5 metres for external extrusions (Their Inspectors visually inspect at 1 metre as standard) QUALICOAT 2.2: Gloss level check to within 5% +/- of the manufacturers stated level. [EN ISO 2813]
- QUALICOAT 2.4.1: Cross Hatch cuts are made at 2mm spacing with one being at 90° to the other cut, tape is then applied, left for 2 minutes and removed to check for Adhesion of paint. [EN ISO 2409 2013] QUALICOAT 2.3: Thickness checks to see that the material is coated with at least 60 microns of powder, average. [EN ISO 2360]
- QUALICOAT 2.6: Cupping test is carried out to check for adhesion with the substrate [EN ISO 1520]
- QUALICOAT 2.8: Impact test with an energy of 2.5Nm to ensure that the coating adheres to the substrate [EN ISO 6272 / ASTM D2794]
- QUALICOAT 2.7: Bend test on a 5mm Mandrel to ensure adhesion after bending [EN ISO 1519]
- QUALICOAT 2.11: Machu test (Accelerated corrosion test) in a solution made up of Sodium Chloride, Acetic Acid and Hydrogen Peroxide at 37°C.
 Duration 48 hours
- QUALICOAT 2.14: Polymerisation test (Wipe with MEK for 30 seconds)
- QUALICOAT 2.16: Resistance to boiling water in a pressure cooker. Duration 1 hour 100Kpa
- QUALICOAT 2.18: Sawing and drilling to ensure that there is no flaking after cutting (using sharp tools).

Curing oven temperatures are checked and recorded daily. External checks are carried out by the powder suppliers and the laboratory in Belgium on random samples of extrusion:

- ISO9227: Acetic Acid Salt Spray Test
- EN ISO 3231: Resistance to Humid atmospheres containing Sulphur Dioxide
- EN ISO 11341: Accelerated weathering test
- EN ISO 2810: Natural weathering test (Florida Test) (Carried out on Powder type)
- EN ISO 12206-1: Resistance to mortar (Carried out on Powder type)
- EN ISO 6270-2: Constant Climate Condensation Water test.

The aluminium is sent through a variety of pre-treatment chemical baths that remove a very fine layer off the surface before powder coating.

SECTION 2

HEALTH & SAFETY

Your installed/supplied structure has no particular operating instructions after or during installation, however the following Health and Safety advice should be followed at all times:

- It is the sole responsibility of the maintenance person and/or customer
 to make sure that all training needs, safety precautions and supervision
 are undertaken and utilised correctly when undertaking inspections,
 maintenance and repairs.
 - AliDeck cannot accept any responsibility whatsoever for any injury or damage to property or individuals as a result of the nature of personnel or equipment that is used, or if individuals do not follow correctly, or disregard, health and safety regulations.
- 2. If the decking is installed at a height, it is recommended that balustrades are used as a safety precaution to minimise persons falling. We also advise that persons do not climb onto the decking at any time and we cannot be held responsible for injuries that are caused by persons doing so.
- 3. When undertaking routine maintenance/inspections, and access is needed via a ladder (if the decking is installed at a height), AliDeck has identified that it is the responsibility of the customer to make sure that full care and attention is taken when working at height and your organisation's health and safety regulations should be followed as a minimum.
- 4. We also recommend regular cleaning to reduce potential slip hazards due to the build-up of foliage, dirt, grime etc.
- 5. In the event of product failure or any structural concerns, questions on the subject of the quality of the product or issues in relation to repair of the product please contact AliDeck immediately on **01622 235672**.

SECTION 3

PROCESSES AND MATERIALS

Please find below a list of all processes and materials which may have been utilised during manufacturing or processing your product:

Materials

- Extruded Aluminium
- Rubber/composite inserts (for the slip resistant decking only)

Processes used

- Bending, forming, fabrication and welding in a workshop environment
- The use of stainless-steel fasteners and fixings
- QUALICOAT powder coating

SECTION 4

REPAIR AND MAINTENANCE METHODS GENERAL OVERVIEW

The product installed, and all its fixings, coatings, and materials should be inspected visually regularly, and at least every 3-6 months (depending on your environment) for:

- Damage
- Breakdown of surface finish
- Loose fixings
- Loose ground anchors

If anything arises which is a concern please refer to the following pages for the appropriate repair and maintenance methods for the material concerned. We would recommend that all structures are cleaned at regular intervals and at least twice a year as a build-up of dirt can cause damage and create an increased risk of injury due to slips and trips by a badly maintained surface. The frequency of this clean down is dependent on your environment – in a harsh coastal or industrial environment it is recommended that a clean is performed at least every 3 months. Where the surroundings are considered to be non-coastal and non-industrial, the frequency can then be at sixmonth intervals.

AliDeck recommend cleaning your structure with a solution of soapy warm water and a lint free cloth.

The structure should then be thoroughly rinsed with a plain warm water solution. No form of abrasive should be used at any time. All concentrated cleaners should be diluted as per the manufacturer's instructions. Never use bleach, solvents, abrasive paste or cream cleaners as they could damage the surface of your decking.

If in doubt, we are only a free phone call away on 01622 235672.

To maximise the life of a painted surface, it is highly recommended that no cleanser that contains chlorinated solvents, ketones or esters is used. These will cause the paint to soften and a further issue will be created that will require a major refurbishing project to be undertaken.

AliDeck do not advise the use of pressure washers or steam cleaners on any part of the decking.

Unlike timber decking, a yearly protective coating is not required, simply following the cleaning instructions above.

At all times with any of the steps detailed in this document please follow Health and Safety regulations, and manufacturer's instructions and precautions carefully for any repair products used, to ensure safety and the best finished results.

Aluminium Frameworks

To clean Aluminium:

- 1. Firstly, remove loose dirt/dust with a soft brush/broom.
- 2. Using a solution of warm, soapy water and a lint free mop, wash the structure
- 3. Then wash with plain warm water to rinse off the soapy water.

QUALICOAT Powder Coating

Powder coating involves the application of a powder finish onto aluminium or shot blasted substrate. Once this has been done the material is then oven cured to form a hardwearing outer layer. However, in an attempt to preserve the appearance as purchased, in conjunction with ensuring the life expectancy, it is required that all powder coated surfaces are subject to a regular visual inspection.

The frequency of inspection should be judged based on the product's environment. For harsh environments such as industrial, coastal or where products have high usage, inspection should be every 3 months. For areas which have low usage, are non-industrial, non-coastal or not near any water these are classed as general environments and the inspection can be every 6 months.

General - at six-month intervals Harsh - at three month intervals

At inspection take care to look for any visual defects and damage to the powder coated surface where it has broken through to the original base metal (aluminium) underneath.

If any defects are noted the following advice should be adhered to as a minimum:

- For light chips or scratches which have exposed the base metal apply an
 appropriate Zinc Rich primer carefully to the defective area followed by a
 topcoat finish in a matching acrylic based spray paint. Ensure all areas are
 cleaned with PW3 panel wipe to remove any grease wax and debit prior to
 recoating.
- For large areas of damage, coating breakdown or vandalism, the area should be sanded as such so that the edges are smoothed to allow for feathering in using P320 grade fine sandpaper (to create a smoother transition from the old paint to the new). A Zinc Rich primer should be brushed or sprayed onto the area and a topcoat should then be applied, in a similar manner.

At all times with any of the steps above please follow the manufacturer's instructions and precautions carefully to ensure safety and the best finished results. If repairs are carried out using spraying it is strongly recommended that the surrounding area is fully protected and masked off.

At the time/frequency of inspection a thorough clean of the powder coated surface should also be carried out.

It is recommended this clean down is done by washing with mild, warm soapy water using a soft cloth; then it should be rinsed with clean water and then dried.

If graffiti is present this should be removed by a specialist contract cleaner or by using a car "T-Cutting" compound. It is not recommended to use any solvents, abrasive cleaners or other chemicals to clean the surface at any time. Below is a list of some of the products which you should not use (this list is not exclusive):

- Nylon scouring pads
- Thinners
- White Spirits
- · Methylated spirits
- Cream household cleaners etc

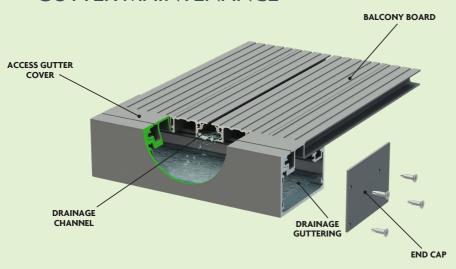
Whichever repair technique is used, Alideck highly recommends that the instructions of the manufacturer are followed all the time whilst taking into account the safety and health requirements of the products and individuals undertaking the task as well.

Other General Maintenance

A full annual check should be made of all fixings present on the structure and all ground fixings to ensure that they have retained the tightness required and are providing the required support.

SECTION 5

GUTTER MAINTENANCE



Health and Safety note:

Please do not remove any deck boards unless working at height risk assessments have been considered.

The AliDeck Gutter drainage system has been designed to minimise the potential issue of blockage, however in the unlikely event of any debris from becoming trapped inside of the gutter channels and the drainage gutter and assuming any dirt build up or foliage cannot be removed with a stiff brush and running water please follow the following processes.

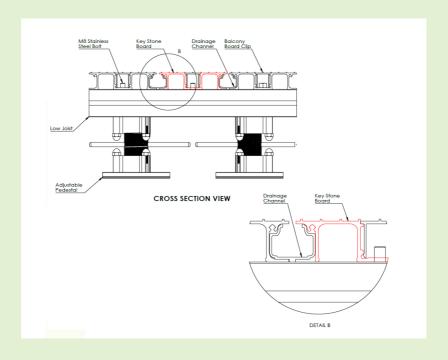
The AliDeck Gutter drainage system has been designed to easily maintain all components within the system. The Alideck Balcony boards have been designed to be bolted directly to the steelwork of the balcony, these boards have a clip system in to top of the board to enable easy access to the fixings should you ever need to replace or maintain a board. You have the option to either remove the first or last board (closest to the wall) or the outside edge of the decked area, or it may be easier to create a 'keystone' board as follows:

When installing a set of drainage channels and drainage gutter you have the option to install a 'keystone' board to allow easy access for maintenance in the centre of the decked area.

In order to utilise the 'keystone' board and gain access to the gutter area the installer will need to do the following:

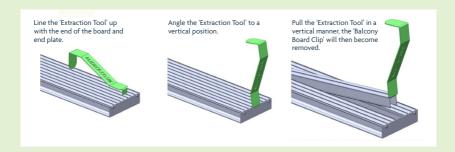
Step 1

During installation of the decking boards the installer will need to decide on an appropriate board or boards to become the designated 'keystone' board or boards. In order for a board to become a keystone board the installer must modify the chosen board by removing the thin section on the underside of the board as shown in the image overleaf (please refer to the installation guide to understand the required tools and process for cutting the AliDeck products).



Step 2

In case of complete blockage of the gutter and assuming a 'Keystone' board has been used, in order to gain access to the gutter this board must be removed, to remove the board simply use either a screwdriver or the Alideck Extraction tool, see below images:



Step 3

Remove the board by unbolting of unscrewing all of the fixings in that 'keystone' board.

Step 4

With the 'keystone' board now removed, access can now be gained to the gutter and the drainage channel for maintenance. If additional access is required, the surrounding boards can be removed in sequence.

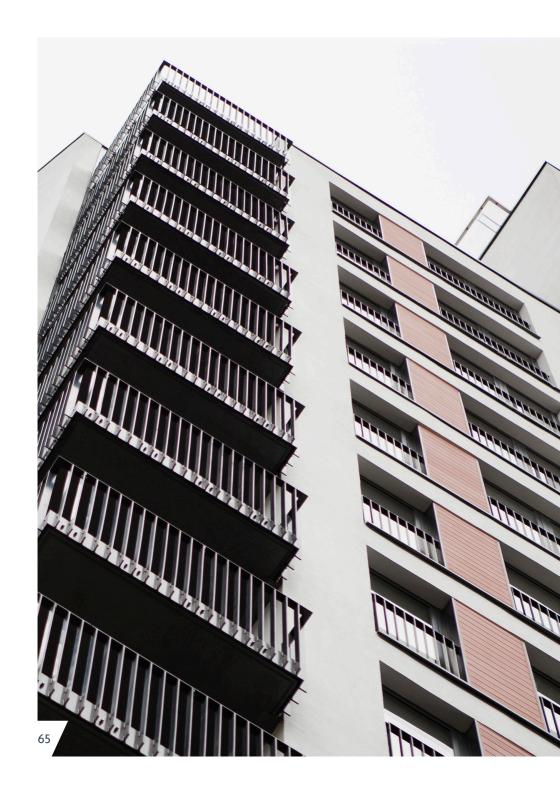
Step 5

With the gutter cleaned and any debris removed, flush the system using water then reverse the process.

If you would like to discuss any of the details in this document further, please call us on 01622 235672.

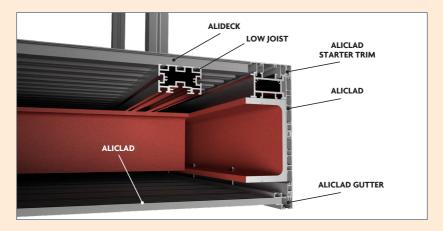
THE ALICLAD SYSTEM

6



The AliClad System OVERVIEW

AliClad is our non-combustible, quick-fit, off-the-shelf balcony soffit cladding product range. Designed to provide simple solutions to balcony fabricators. It consists of three different products - **AliClad Lite**, **Flow** and **Decor**



The AliClad balcony soffit cladding range is a solution-driven system. Consisting of three distinct products (Flow, Decor, and Lite), this novel approach to balcony cladding solves problems relating to drainage, aesthetics, and cost.

AliClad Flow has been designed to provide a water-management system at the balcony underside. Delivering fast and efficient removal of rainwater and other liquids, AliClad Flow is an ideal solution for safe and controlled balcony drainage. Water is collected by the soffit panels and evacuated in a controlled way at the front of the balcony.

AliClad Decor is, as the name suggests, a decorative product, with an attractive box profile providing excellent visual impact as it seals the soffit, with drainage managed in the balcony deck above.

Finally, **AliClad Lite** is a simple, costeffective, free-draining soffit cladding option that neatly conceals the steel framework of the balcony underside.

AliClad was designed with steel fabricators and their balcony construction workflows in mind. By removing the need for bespoke folded steel and providing an entirely off-the-shelf cladding solution, architects and designers can be sure that cost, compliance, and design concerns are satisfied from the moment of specification.

The AliClad LITE BOARD





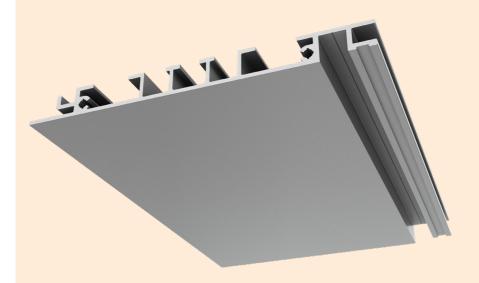
The AliClad LITE BOARD

AliClad Lite is our non-combustible, quick-fit, off-the-shelf balcony soffit cladding product range. Designed to provide simple solutions to balcony fabricators.

- Fire Resistant: A2-s1, d0
- **Span:** 1m
- Standard Stock Lengths: 6m
- Warranty: 30 Year Warranty
- Life Expectancy: 60 years
- Material: 6063 T6 Structural Grade Aluminium
- Colour: Full range of AliDeck colours

Notes

The AliClad FLOW BOARD





The AliClad FLOW BOARD

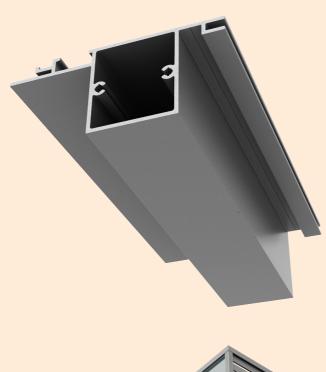
AliClad Flow is our non-combustible, quick-fit, off-the-shelf balcony soffit cladding product range. Designed to provide water-management in the balcony underside.

- Fire Resistant: A2-s1, d0
- Span: 1m
- Standard Stock Lengths: 6m
- Warranty: 30 Year Warranty
- Life Expectancy: 60 years
- Material: 6063 T6 Structural Grade Aluminium
- Colour: Full range of AliDeck colours

Notes

The AliClad

DECOR BOARD





The AliClad DECOR BOARD

AliClad Decor is our non-combustible, quick-fit, off-the-shelf balcony soffit cladding product range. Designed to provide simple solutions to balcony fabricators.

- Fire Resistant: A2-s1, d0
- Span: 1m
- Standard Stock Lengths: 6m
- Warranty: 30 Year Warranty
- Life Expectancy: 60 years
- Material: 6063 T6 Structural Grade Aluminium
- Colour: Full range of AliDeck colours

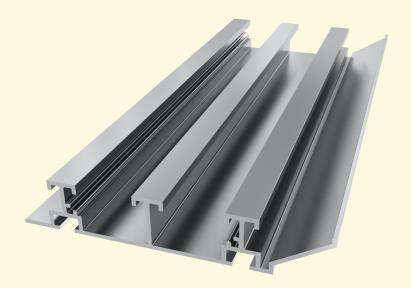
Notes

THE ALIPAVE SYSTEM



The AliPave System OVERVIEW

AliPave is the latest innovation from AliDeck and is the industry's first positively-drained paving support system for steel balconies.



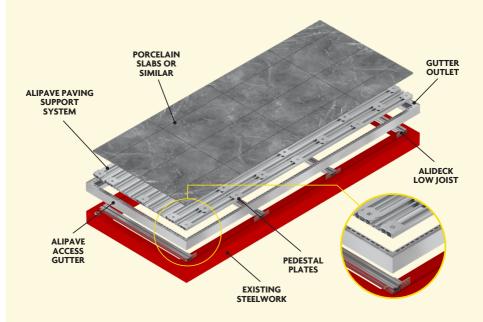
AliPave has been designed to provide an off-the-shelf, fully compliant paving system for steel balconies.

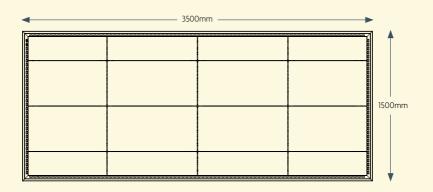
With easily attainable flooring options previously limited to decking boards or steel plates and grilles, steel balconies have sorely missed the aesthetic opportunities offered by porcelain and granite tiles. The AliPave system now allows the simple specification of high-end flooring options on high-rise steel balconies.

The core of the AliPave Balcony Paving System is the extruded AliPave profile. An interlocking board, the AliPave profile has been designed for extremely high strength while maintaining a low profile height of only 27mm.

The intelligently engineered design of the AliPave profile achieves a span of up to 1000mm between centres at 1.5kN point load, minimising the required underside support.

The AliPave **SYSTEM**





The AliPave SYSTEM

The AliPave System is a positively drained balcony flooring solution. With water flowing between the supported paving slabs, the AliPave profile collects and channels liquids to the balcony ends by a recommended 1:80 fall where it is evacuated to a specified outlet.

- Fire Resistance: Al
- Material: 6063 T6 Structural Grade Aluminium
- Dimensions: 130mm wide x 27mm high
- Weight: 1.798 KG Per Linear Metre
- Standard Stock Lengths: 6m
- Colour: Mill Finish Aluminium
- Warranty: 30 years
- Life Expectancy: 60 years

Notes

THE ALIRAIL SYSTEM

8



The AliRail System OVERVIEW

AliRail is our non-combustible, quick-fit aluminium balcony balustrade system. Designed to provide off-the-shelf and edge protection solutions for balconies.



AliRail is our versatile balustrade system for bolt-on balconies, designed to offer multiple options for balcony handrails and edge protection. Created to deliver a lightweight and aesthetically beautiful balustrade solution, and fully compatible with AliDeck and AliClad balcony systems.

With multiple options for in-fill finishing, AliRail is a modular and configurable balustrade system. Choosing either aluminium rails, glass, or a mixture of both, AliRail balustrades provide a practical and impactful finish to balconies. With laser-cut glass designs and LED lighting also available, the options are almost limitless with AliRail.

Manufactured from T6-grade aluminium and finished in QualiCoat powder-coating, AliRail is durable and wear-resistant to provide decades of service. Tested for fire safety, AliRail is a non-combustible product and achieves Euroclass rating of A2-s1, d0 for full-compliance with legislation.

The AliRail SYSTEM THE JOINING SECTION FOR **TURNING CORNERS CLIP SYSTEM** FOR EASY INSTALLATION AND COVERING **FIXINGS LED LIGHTS STRIPS**

The AliRail SYSTEM

As a configurable cladding solution, the AliRail system comprises multiple inter-compatible elements to cope with all situations.

- Fire Resistance: A2 s1 d0 when coated
- Material: 6063 T6 Structural Grade Aluminium
- Post Dimensions: 80mm x 80mm
- Box Spindle Dimensions: 20mm x 80mm
- Loading Capabilities: 1.5 kN/m
- Colour: Mill Finish Aluminium
- Warranty: 30 years
- Life Expectancy: 60 years

Notes

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 $\Delta L:RA:L \mid \Delta L:CLA:D \mid \Delta L:PAVE$