Kattsafe Height access and fall protection

INSTALLATION MANUAL

PLATFORMS & STAIRS

Engineered, no weld, modular platform and stair system designed for easy customisation and on-site assembly. With re-usable components, Kattsafe stairs and platforms save design costs and reduces delivery lead times.

Product brochure
Platforms and stairs

Installation manual
Platforms and stairs

Find all related products and resources on our website
kattsafe.com.au

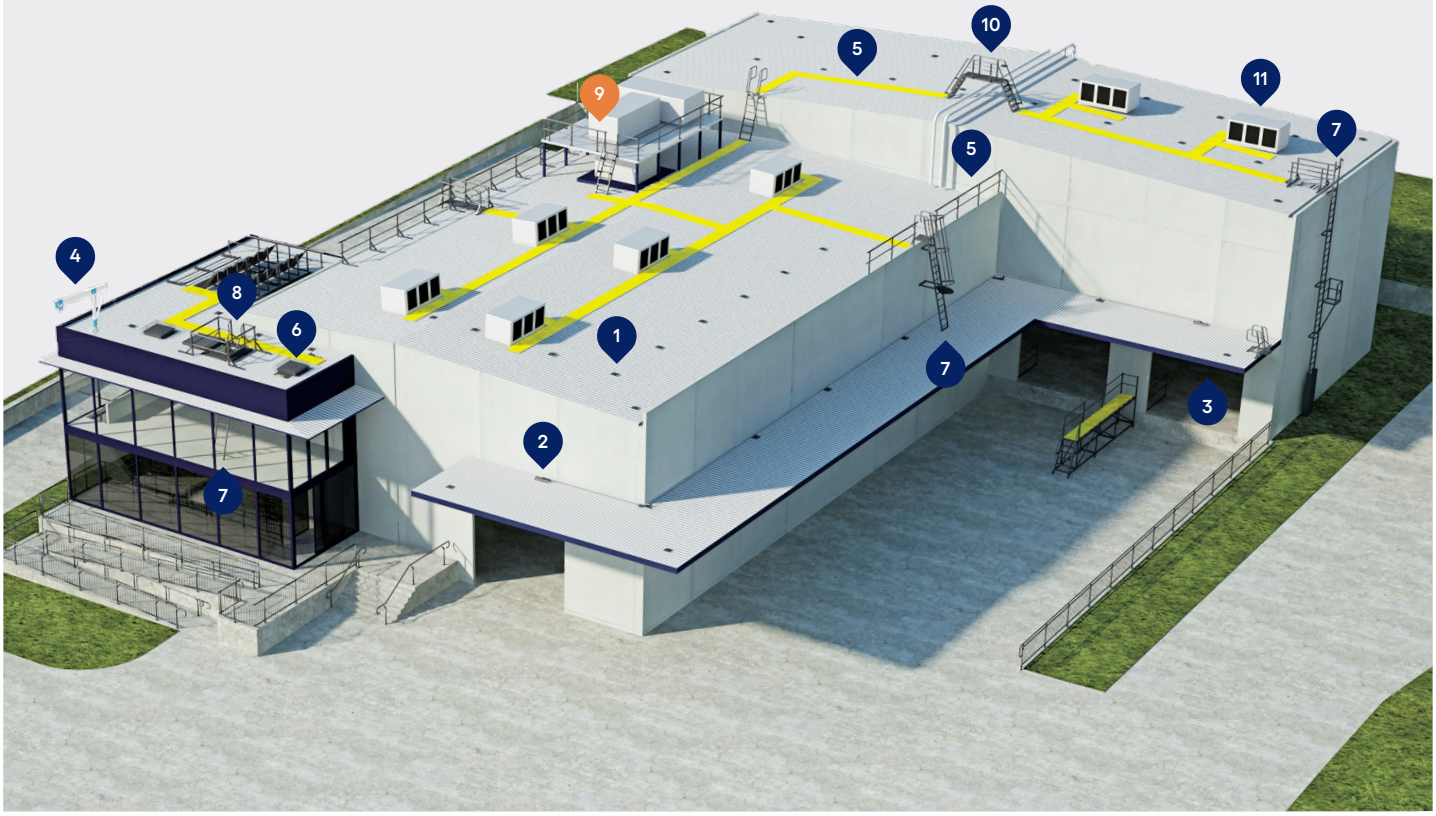
Commercial building height access and fall protection requirements

Kattsafe leads the industry in the design, installation and management of access and fall protection safety systems.

The in-action model demonstrates access and fall protection requirements for a commercial building design. Kattsafe recommendations fulfill current workplace requirements for the safety of building maintenance subcontractors, employees and the general public.

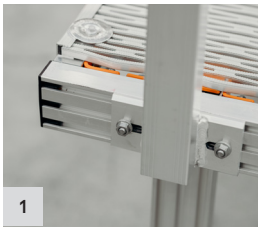
For more information please contact Kattsafe.
kattsafe.com.au

1 Anchor points
2 Static lines
3 Rigid rail
4 Davits and needles
5 Guardrail and walkway
6 Skylight protectors
7 Rung ladders
8 Access hatches
9 Platforms and stairs
10 Step ladders
11 HVAC platforms



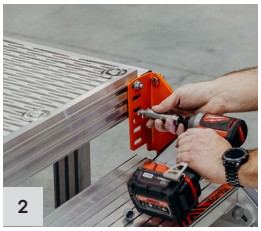
PLATFORMS & STAIRS

A proprietary modular system designed to allow on-site assembly and customisation to suit exact site parameters, reducing design and delivery lead time.



Construction

Manufactured with lightweight aluminium components, ensuring corrosion resistance and aiding in a simple install.



Adjustable components

Allows components to be installed with basic tools and can be adjusted to suit on-site requirements.

T-bolt

M10 T-bolt fastener providing rapid installation to minimise any drilling required.

Load rating

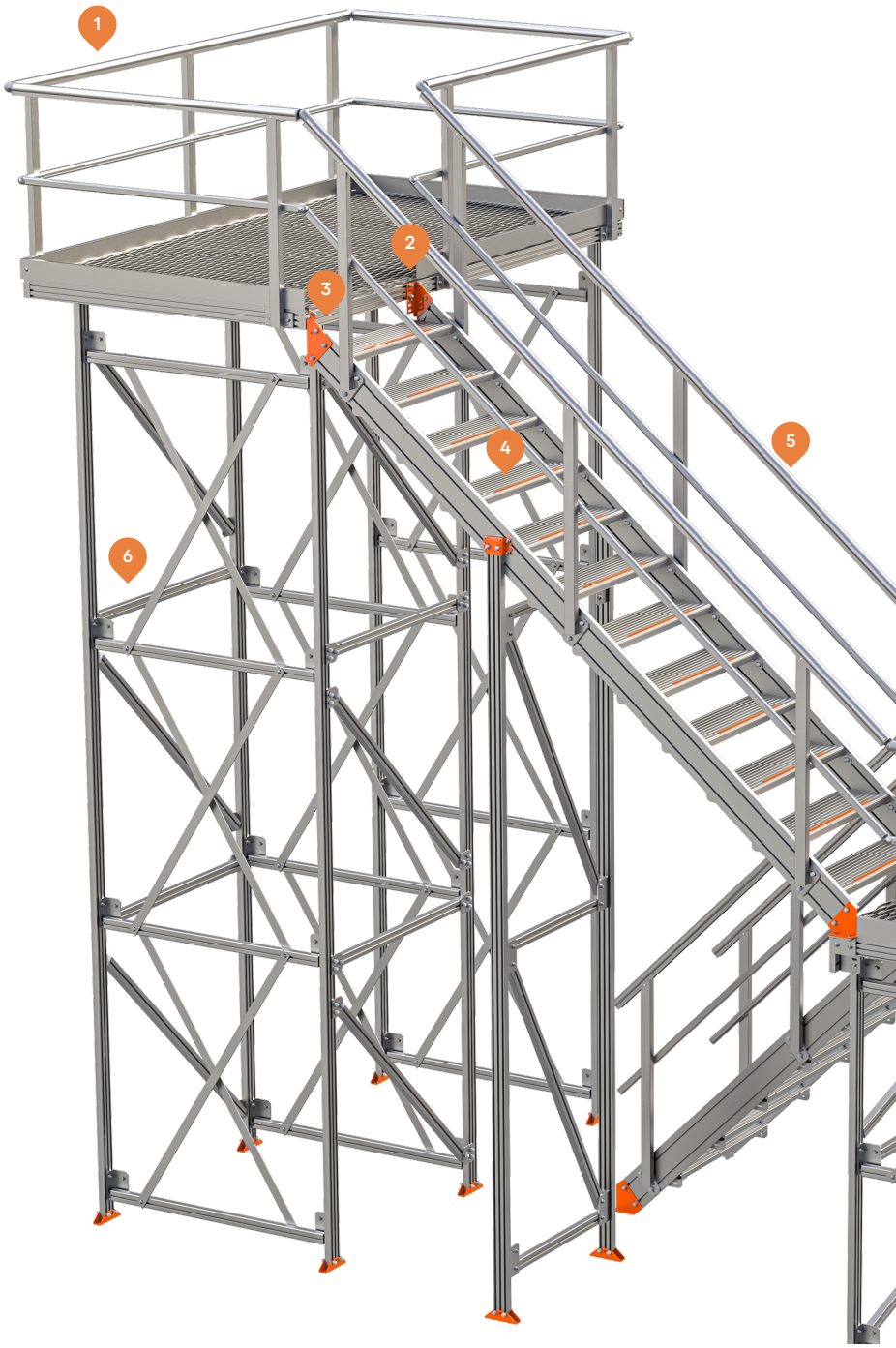
Designed to AS1657-2018 with a working load limit of 2.5kPa.

Pre assembled

Supplied on-site as a flat-packed unit ensuring fast install times with less handling required then typical steel systems.

Self supportable

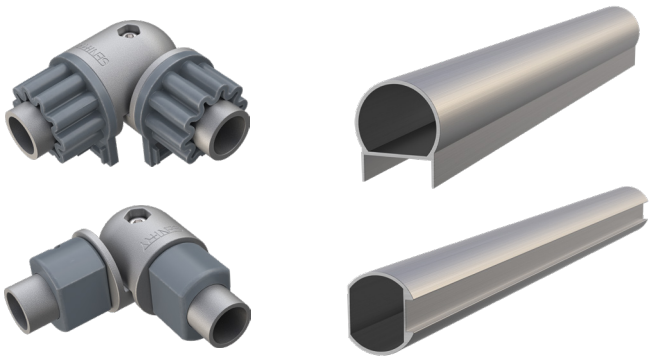
Additional bracing and spreader trusses allow the system to be self supporting where required.



PLATFORM & STAIR COMPONENTS

Handrail and kneerail

- GW382 Handrail elbow
- GW383 Kneerail elbow
- GW374 Handrail tube
- GW375 Kneerail tube

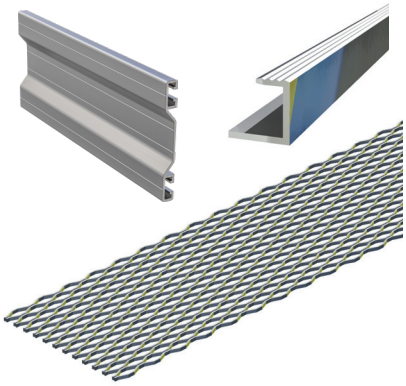


Stairs

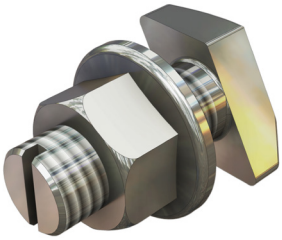
- KB010 Stair tread
- KB031 Stair mount bracket
- KB034 Stair adjustable foot

Platforms

- KB060 Platform cross support
- GW320 Toe board
- GW329 Platform mesh edge bar
- GW335 Platform mesh



KB005 T-bolt

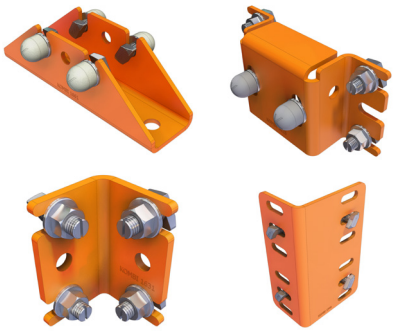


Rail posts and end caps

- KB603S Guardrail post side mount
- GW300 Stair handrail post
- GW378 Handrail end cap
- GW379 Kneerail end cap

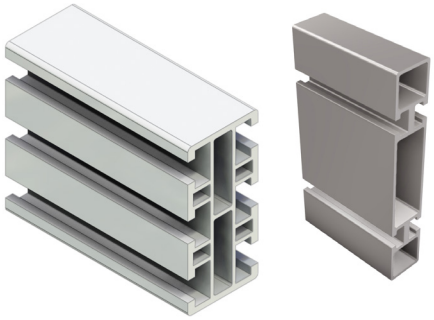
Brackets

- KB026 Base support bracket
- KB021 Top support bracket
- KB013.80 Angle bracket 80
- KB013.180 Angle bracket 180



Extrusions

- KB001 80 Extrusion
- KB003 180 Extrusion



Bracing and supports

- KB530 Support brace
- KB5506 Cantilever brackets

TOOLS & EQUIPMENT

Impact wrench

15mm Socket and wrench

5/16 nut setter

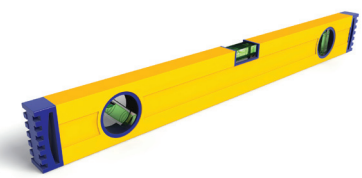
Drop saw

Pitch meter

Tape measure

Marking pen

Spirit level



INSTALLATION REQUIREMENTS

Must be read prior to installation

1. This system must only be installed by competent persons trained in the selection, use and maintenance of fall arrest and rope access systems.
2. Persons installing this system are required to have a comprehensive knowledge of the Australian Standards, codes of practice and industry guidelines that relate to the selection, use and maintenance of fall arrest and rope access systems and equipment.
3. Integrity and suitability of the structure to which this system is attached must be approved by a structural engineer unless it is clear to a competent person as to the structure suitability.
4. Read installation and operating instructions carefully before commencing any work. Consent to deviate from the installation guide must be obtained in writing from the manufacturer.
5. Conduct an initial work/risk assessment, and take all reasonable precautions to eliminate or control potential hazards and risks during the installation of this product.
6. Complete all necessary WHS documentation, including a Job Safety Analysis and Work Method Statement and obtain consent from responsible person in the workplace prior to commencement of work.
7. Installers must possess valid industry licenses, be appropriately trained, and comply with all relevant WHS legislation prior to installation of this product.
8. Appropriate temporary access and safety equipment must be used during installation, such as platform ladders or scaffolding and fall protection anchorage points.
9. Do not modify or remove any element of the support structure without prior authorisation by a qualified engineer.
10. Decorative coatings and coverings must be removed to ensure correct evaluation of structure prior to attachment of system.
11. Any re-routing of electrical and/or other services must be carried out by qualified or authorised personnel.
12. In case of emergency, fall arrest and rope access systems must be installed by a minimum of two persons.
13. Do not tamper with, modify or remove any part this system unless authorised by the manufacturer.
14. Appropriate labels or markings must be attached to each anchor and include the following:
    - System for personnel use only
    - Service entry date
    - Next examination/service due date
    - Harness gear requirements and system compatibility
    - Maximum designed load ratings
    - Installer/Certifier contact details
15. Documentation confirming correct use and maintenance of the system and equipment must be provided to the workplace manager on completion of installation.

Kattsafe instructions and recommendations, drawings and diagrams, and all other documentation are copyright, errors and omissions excepted, and must be carefully read and implemented. Any assistance or guidance given is without prejudice, and Kattsafe cannot be held responsible for any inaccuracy or misinterpretation whatever. Failure to follow site installation requirements and warnings, may result in serious injury or death.

Kattsafe accepts no direct or indirect responsibility and/or consequential liability whatever, for any products and systems incorrectly installed or certified. Kattsafe cannot warrant the integrity or suitability of the structure to which the products may be attached. Prior assessment must be made by a qualified structural engineer, unless the structure is authorised or approved by a competent person.

SYSTEM LIMITATIONS

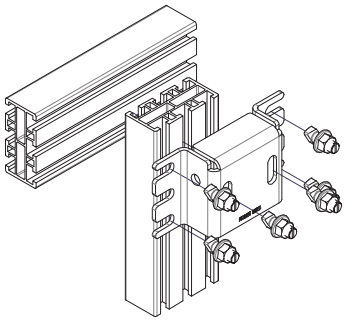
Must be read prior to installation

1. Kattsafe platforms and stairs are rated to 2.5kPa live load (250kg/m2)
2. Kattsafe platforms are designed for a maximum free standing height of 6000mm. Taller platforms are achievable based on engineer's specifications.
3. Stairs can have a maximum of 17 treads (18 risers) as per AS 1657:2018.
4. Platform deflection has been based on two variables, moderate deflection and minimal deflection. Moderate deflection is calculated using span length divided by 100mm. Minimal deflection is calculated using span length divided by 200mm.
5. Deflection is based on a uniformly distributed load combination of dead load + 0.7 live load. (G+0.7Q)
6. Platforms are not designed for dead loads other than self weight. Please consult with the Kattsafe team for these design scenarios.
7. Correct lock off position of T-bolt is critical to ensure integrity of system. The slot in the T-bolt must be perpendicular to the extrusion slot.
8. Not suitable for BCA/ NCC requirements (general public access.) This system is designed for industrial and maintenance access only.
9. Decorative coating and coverings must be removed to ensure correct evaluation of structure prior to attachment of system.
10. Do not tamper with or make alterations to system components without manufacturer's consent.
11. This system is not to be used for tethering, lifting machinery or equipment.
12. The access system must be checked by a competent system inspector as recommended:
    - Non corrosive/mild environment - 12 monthly
    - Corrosive/harsh environment - 6 monthly (more frequent inspection - may be required).

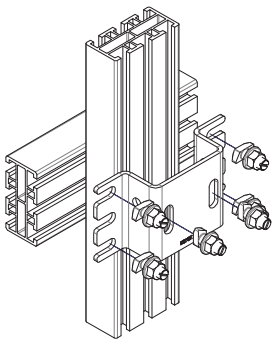
Kattsafe recommends that persons working at heights do not work alone in case of an emergency and help is required.

Should any part of the system/equipment have been subjected to abnormal loading, use must be discontinued until replaced/recertified by a competent person.

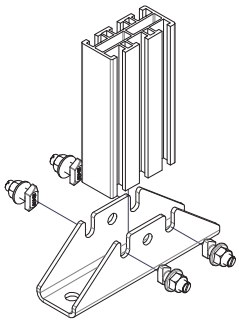
CONNECTION DETAILS



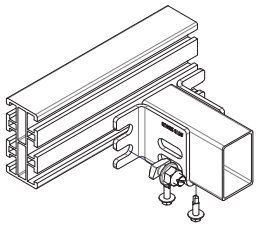
Name	80 Top support bracket
Product code	KB021
Material	Powder coated stainless steel
Use	Connects post to platform
Note	If this bracket is used to support a suspended platform, drill a M11 hole through extrusion using the bracket suspension hole as a guide. M10 bolt is required to be used.



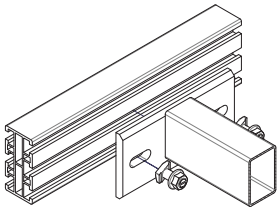
Name	80 Post through bracket
Product code	KB022
Material	Powder coated stainless steel
Use	Connects post to platform



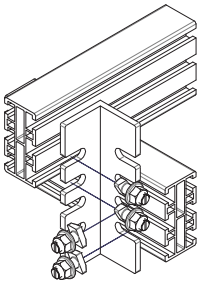
Name	80 Base support foot
Product code	KB026
Material	Powder coated stainless steel
Use	Secures post to ground



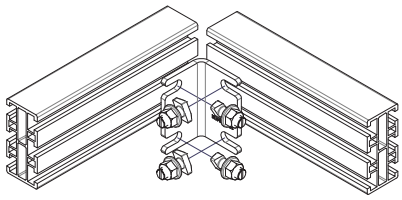
Name	80 Horizontal support bracket
Product code	KB012
Material	Powder coated stainless steel
Use	Fixes platform cross supports to platform stringers



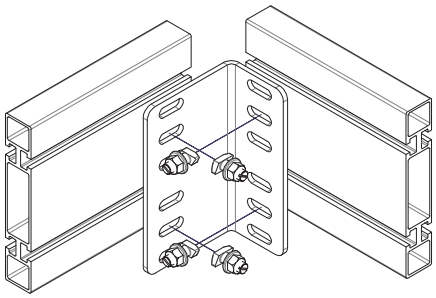
Name	80 Platform cross support
Product code	KB060
Material	Aluminium
Use	Supports and secures platform



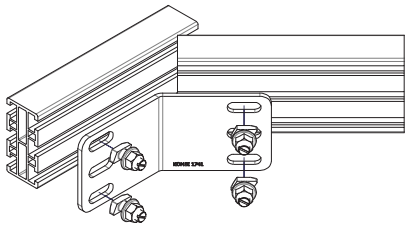
Name	Joist to bearer bracket
Product code	KB004
Material	Aluminium
Use	Connects 80 joist to bearers



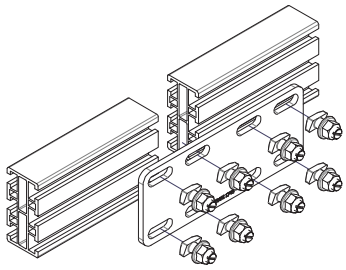
Name	80 Angle bracket
Product code	KB013.80
Material	Powder coated stainless steel
Use	90° 80 corners



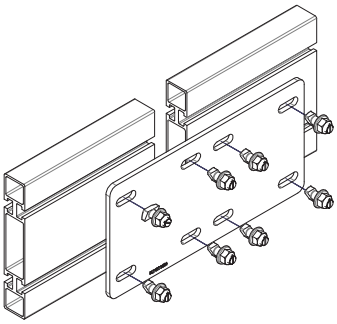
Name	180 Angle bracket
Product code	KB013.180
Material	Powder coated stainless steel
Use	90° 180 corners



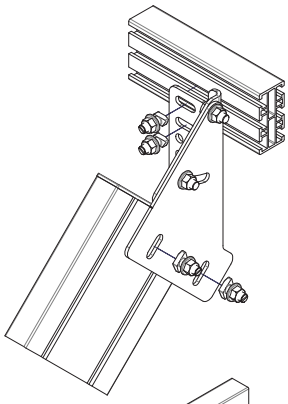
Name	80 Angle bracket kit 45°
Product code	KB015.80
Material	Powder coated stainless steel
Use	45° angle corners



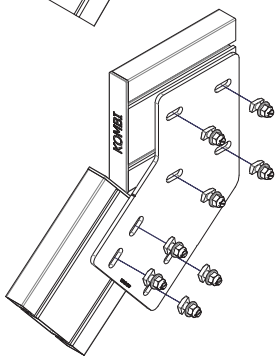
Name	80 Post joining plate
Product code	KB016.80
Material	Aluminium
Use	Joins 80 extrusion



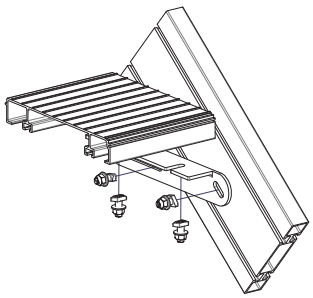
Name	180 Joining plate
Product code	KB016.180
Material	Aluminium
Use	Joins 180 extrusion



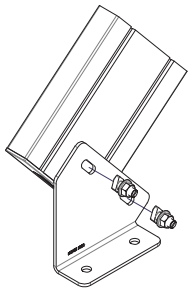
Name	Stair mounting adjustable bracket
Product code	KB031
Material	Powder coated stainless steel
Use	Connects stair stringer to platform structure.
Note	Stairs can be angled from 30° to 44°. For best flexibility, install stair at 40°



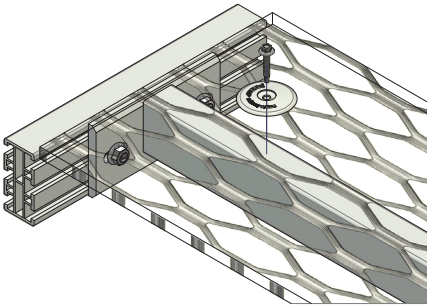
Name	Stair bridge mounting plate
Product code	KB014
Material	Powder coated stainless steel
Use	Connects stair stringer to platform structure.



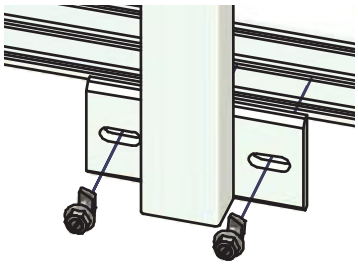
Name	Stair tread connection bracket
Product code	KB019
Material	Aluminium
Use	Connects stair tread to stringers.
Note	Maximum 17 treads / 18 risers in a single stair as per AS/NZS 1657.



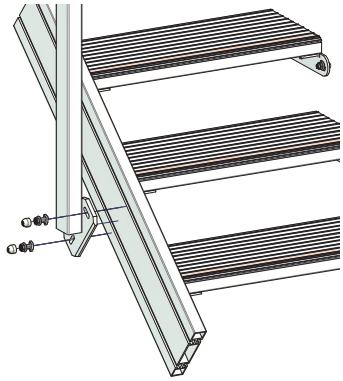
Name	Stair foot 180mm adjustable
Product code	KB034
Material	Powder coated stainless steel
Use	Connects stair stringer to ground.



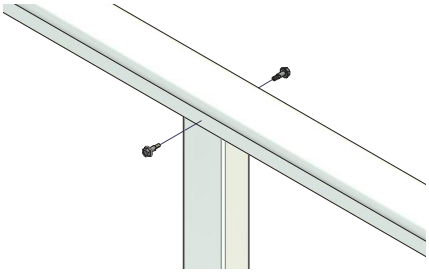
Name	Platform deck
Product code	GW 335
Material	Aluminium
Use	Provides walkway deck for platforms.
Note	Platform maximum opening sizes no more than 15mm where possibility of persons accessing underneath. Use narrow mesh walkway deck in this application.



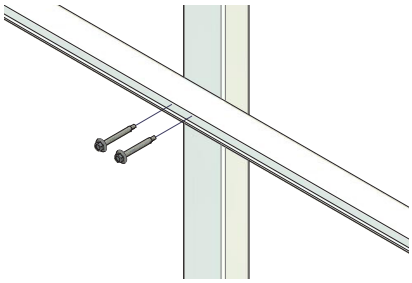
Name	Platform guardrail post
Product code	KB603S
Material	Aluminium
Use	Supports guardrail system.



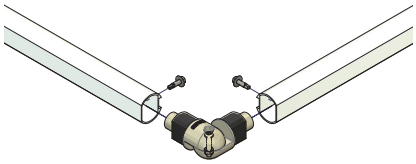
Name	Stair handrail post
Product code	KB601L (Left) and KB601R (Right)
Material	Aluminium
Use	Supports handrail system.



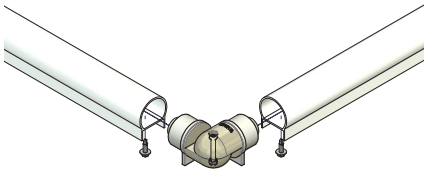
Name	Guardrail / Handrail
Product code	GW374
Material	Aluminium
Use	Provides barrier / handrail for platform and stair.



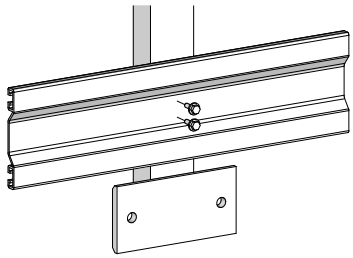
Name	Kneerail
Product code	GW375
Material	Aluminium
Use	Provides barrier / handrail for platform and stair.



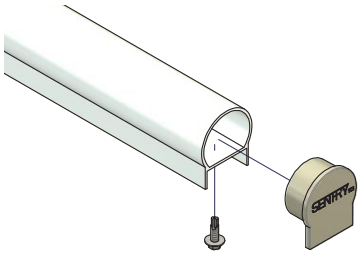
Name	Kneerail elbow corner
Product code	GW383 (Kneerail)
Material	Die cast aluminium
Use	Connects rail together at corners.
Note	Corners are adjustable.



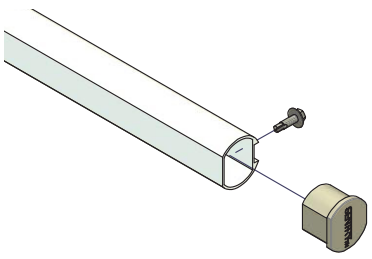
Name	Handrail elbow
Product code	GW382 (Handrail)
Material	Die cast aluminium
Use	Connects rail together at corners
Note	Corners are adjustable.



Name	Toe board 100 x 25 C section
Product code	GW320
Material	Aluminium
Use	Prevents objects from sliding off platform.
Note	A maximum gap of 10mm is allowed between platform deck and underside of toe board .

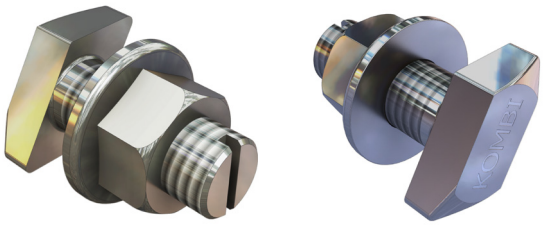


Name	Handrail end cap
Product code	GW378
Material	Die cast aluminium
Use	Caps the exposed end of the handrail.

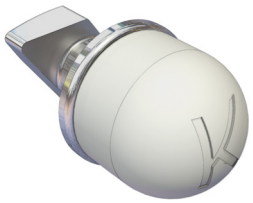


Name	Kneerail end cap
Product code	GW379
Material	Die cast aluminium
Use	Caps the exposed end of the kneerail.

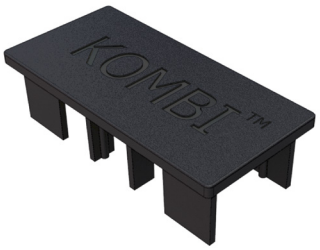
FIXINGS & END CAPS



Name	T-bolt (M10)
Product code	KB005
Material	Stainless steel
Use	Fixes all brackets and plates in the system.
Note	Slot on T-bolt must be perpendicular to extrusion slot to ensure correct insertion.



Name	T-bolt nut cap
Product code	SD935K.10
Material	High density plastic
Use	Caps all exposed T-bolt ends.



Name	80 End cap
Product code	KB092.80
Material	High density plastic
Use	Caps exposed ends of 80 extrusion.

Name	180 End cap
Product code	KB092.180
Material	High density plastic
Use	Caps exposed ends of 180 extrusion.

Name	Certification plate
Product code	SD970
Material	Aluminum
Use	Identifies install & certification information.

SYSTEM ASSEMBLY

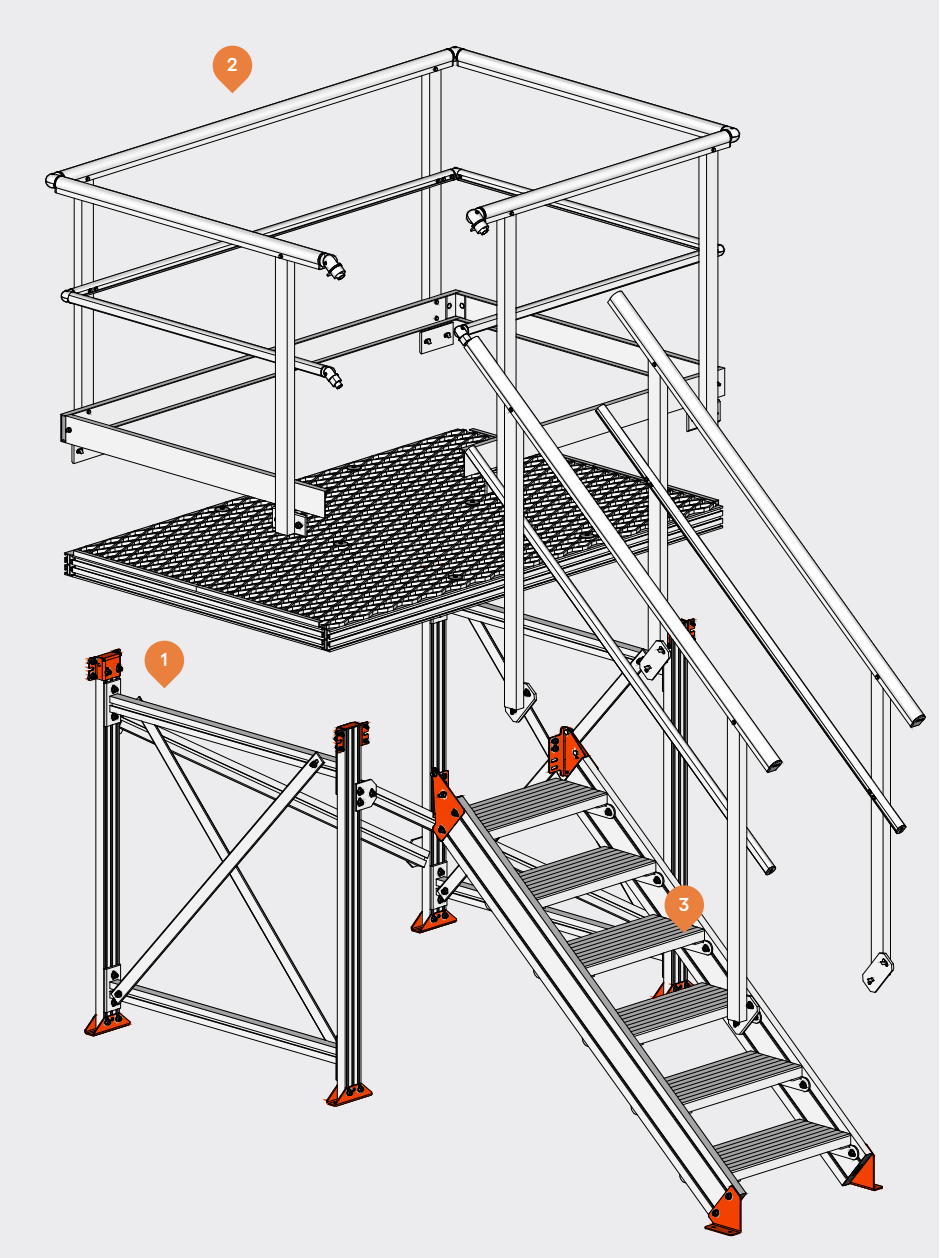
Primary modules

1. Supports
2. Platform and guardrail
3. Stair and guardrail

Supports and platform assembly video

Stair assembly video

Guardrail assembly video



SYSTEM MODULE DIMENSIONS

Support

Width	Height
600 Series	From 600 - 6000mm in 200mm increments
900 Series	From 600 - 6000mm in 200mm increments
1200 Series	From 600 - 6000mm in 200mm increments

Platform

Width	Height
600 Series	From 600 - 6000mm in 300mm increments
900 Series	From 600 - 6000mm in 300mm increments
1200 Series	From 600 - 6000mm in 300mm increments

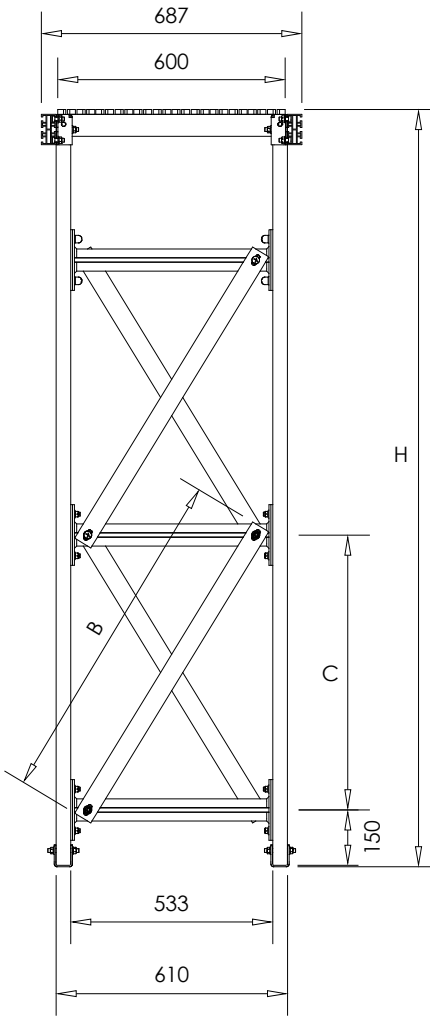
Stair

Width (mm)	Height
610	From 400 - 4000mm in 200mm increments
915	From 400 - 4000mm in 200mm increments
1220	From 400 - 4000mm in 200mm increments

POST SUPPORT BRACING LAYOUT

600 series bracing layout

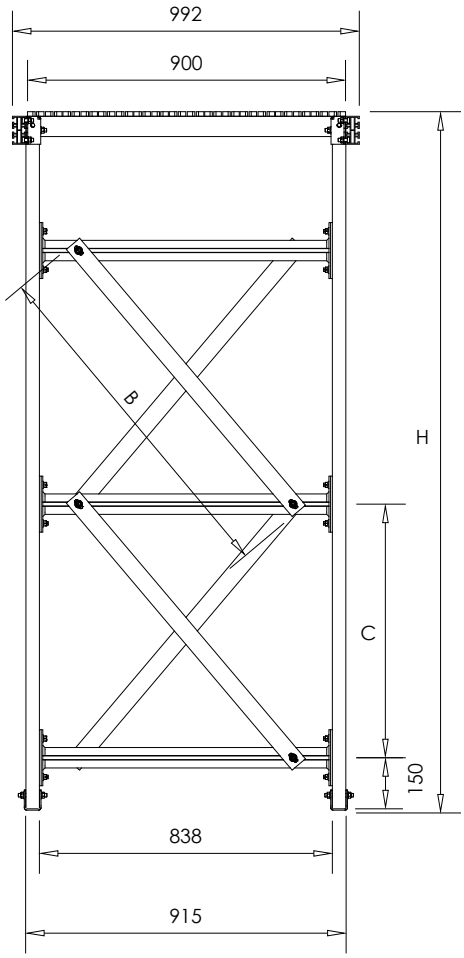
1. Identify the correct post height.
2. Determine the correct post support kit and required quantity.
3. Assemble post support bracing as per table.



H: Platform height (mm)	Post support kit	B: Bracing strap length (mm)	C: Centre to centre (mm)	Brace qty
0 - 600	KB5206.600	Not required	Not required	
600 - 800	KB5206.800	Not required	Not required	
800 - 1000	KB206.1000	Not required	Not required	
1000 - 1200	KB206.1200	900	750	
1200 - 1400	KB206.1400	1000	850	1
1400 - 1600	KB206.1600	1100	970	1
1600 - 1800	KB206.1800	1300	1230	1
1800 - 2000	KB206.2000	900	720	2
2000 - 2200	KB206.2200	900	820	2
2200 - 2400	KB206.2400	1000	880	2
2400 - 2600	KB206.2600	1100	1020	2
2600 - 2800	KB206.2800	1200	1090	2
2800 - 3000	KB206.3000	900	790	3
3000 - 3200	KB206.3200	1000	880	3
3200 - 3400	KB206.3400	1100	950	3
3400 - 3600	KB206.3600	1100	1015	3
3600 - 3800	KB206.3800	1200	1080	3
3800 - 4000	KB206.4000	1000	860	3
4000 - 4200	KB206.4200	1000	910	4
4200 - 4400	KB206.4400	1200	960	4
4400 - 4600	KB206.4600	1100	1025	4
4600 - 4800	KB206.4800	1200	1060	4
4800 - 5000	KB206.5000	1300	1110	4
5000 - 5200	KB206.5200	1300	1160	4
5200 - 5400	KB206.5400	1300	1230	4
5400 - 5600	KB206.5600	1400	1260	4
5600 - 5800	KB206.5800	1400	1310	4
5800 - 6000	KB206.6000	1200	1090	5

900 series bracing layout

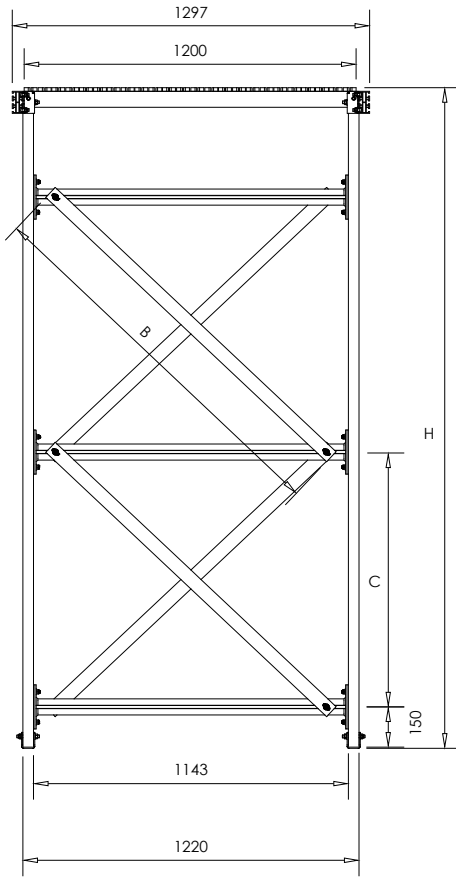
1. Identify the correct post height.
2. Determine the correct post support kit and required quantity.
3. Assemble post support bracing as per table.



H: Platform height (mm)	Post support kit	B: Bracing strap length (mm)	C: Centre to centre (mm)	Brace qty
0 - 600	KB5209.600	Not required	Not required	
600 - 800	KB5209.800	Not required	Not required	
800 - 1000	KB209.1000	Not required	Not required	
1000 - 1200	KB209.1200	1000	710	1
1200 - 1400	KB209.1400	1100	850	1
1400 - 1600	KB209.1600	1200	1050	1
1600 - 1800	KB209.1800	1500	1250	1
1800 - 2000	KB209.2000	1000	725	2
2000 - 2200	KB209.2200	1100	825	2
2200 - 2400	KB209.2400	1200	925	2
2400 - 2600	KB209.2600	1300	1025	2
2600 - 2800	KB209.2800	1300	1125	2
2800 - 3000	KB209.3000	1400	1225	2
3000 - 3200	KB209.3200	1500	1325	2
3200 - 3400	KB209.3400	1200	950	3
3400 - 3600	KB209.3600	1200	1015	3
3600 - 3800	KB209.3800	1300	1080	3
3800 - 4000	KB209.4000	1400	1150	3
4000 - 4200	KB209.4200	1400	1215	3
4200 - 4400	KB209.4400	1500	1300	3
4400 - 4600	KB209.4600	1500	1300	3
4600 - 4800	KB209.4800	1200	1025	4
4800 - 5000	KB209.5000	1400	1110	4
5000 - 5200	KB209.5200	1400	1160	4
5200 - 5400	KB209.5400	1400	1210	4
5400 - 5600	KB209.5600	1400	1210	4
5600 - 5800	KB209.5800	1500	1300	4
5800 - 6000	KB209.6000	1500	1360	4

1200 series bracing layout

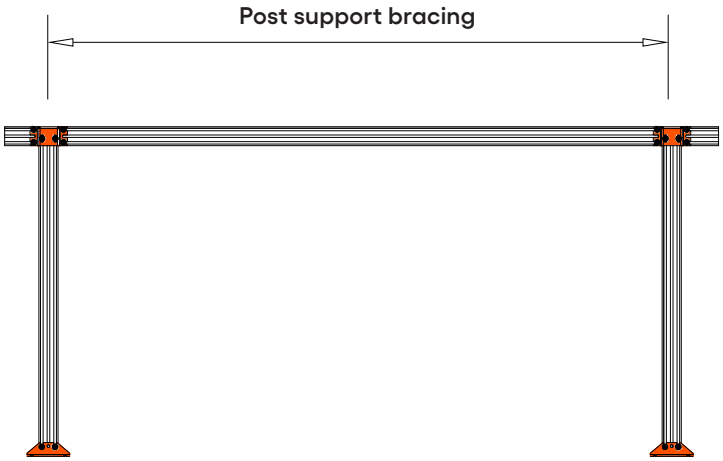
1. Identify the correct post height.
2. Determine the correct post support kit and required quantity.
3. Assemble post support bracing as per table.

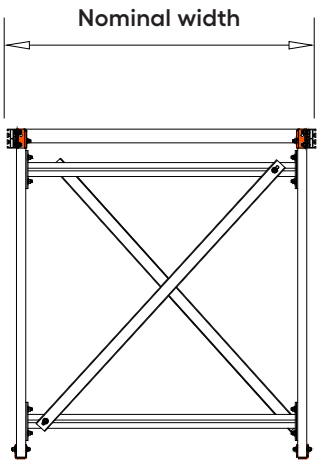


H: Platform height (mm)	Post support kit	B: Bracing strap length (mm)	C: Centre to centre (mm)	Brace qty
0 - 600	KB5212.600	Not required	Not required	
600 - 800	KB5212.800	Not required	Not required	
800 - 1000	KB212.1000	Not required	Not required	
1000 - 1200	KB212.1200	1200	650	1
1200 - 1400	KB212.1400	1200	850	1
1400 - 1600	KB212.1600	1500	1050	1
1600 - 1800	KB212.1800	1500	1250	1
1800 - 2000	KB212.2000	1800	1450	1
2000 - 2200	KB212.2200	1300	825	2
2200 - 2400	KB212.2400	1400	925	2
2400 - 2600	KB212.2600	1500	1025	2
2600 - 2800	KB212.2800	1500	1125	2
2800 - 3000	KB212.3000	1500	1225	2
3000 - 3200	KB212.3200	1600	1325	2
3200 - 3400	KB212.3400	1800	1425	2
3400 - 3600	KB212.3600	1500	1015	3
3600 - 3800	KB212.3800	1500	1080	3
3800 - 4000	KB212.4000	1500	1150	3
4000 - 4200	KB212.4200	1500	1215	3
4200 - 4400	KB212.4400	1500	1280	3
4400 - 4600	KB212.4600	1600	1350	3
4600 - 4800	KB212.4800	1800	1415	4
4800 - 5000	KB212.5000	1800	1480	4
5000 - 5200	KB212.5200	1800	1550	4
5200 - 5400	KB212.5400	1500	1210	4
5400 - 5600	KB212.5600	1500	1260	4
5600 - 5800	KB212.5800	1600	1310	4
5800 - 6000	KB212.6000	1500	1090	4

Post support bracing

- Kattsafe platforms are designed to support a live load of 2.5kPa (250kg/m^2)
- Calculations assume maximum flooring mass of 12kg/m^2 (weight of guardrail and aluminium deck)
- Allowances for floor vibration has not been taken into account in the design.
- Lateral bracing is required as per configuration table.
- Platform deflection has been based on two variables, frequent access (less deflection) and infrequent access (greater deflection).
- The table below show spacings based on the above.





Using 80mm platform beam

Nominal width	Post support bracing (mm) - to support 2.5kPa (AS/NZS 1657)
600 series platform	3300
900 series platform	2700
1200 series platform	2500

Deflection is limited to L/100

Using 180mm platform beam

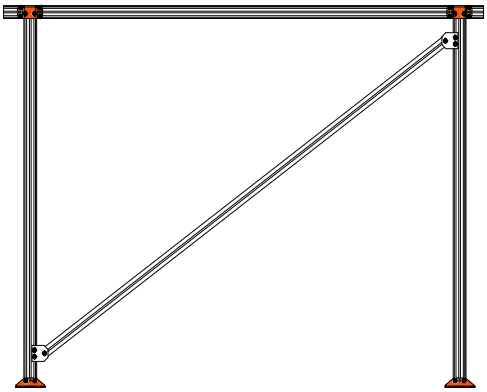
Nominal width	Post support bracing (mm) - to support 2.5kPa (AS/NZS 1657)
600 series platform	6000.600
900 series platform	5500
1200 series platform	5100

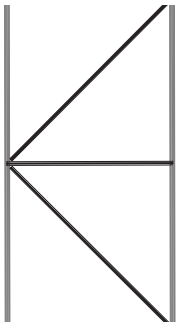
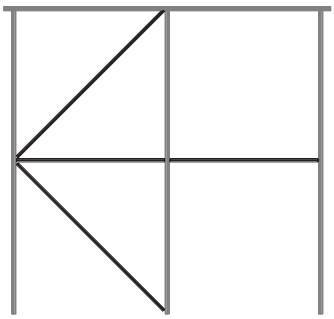
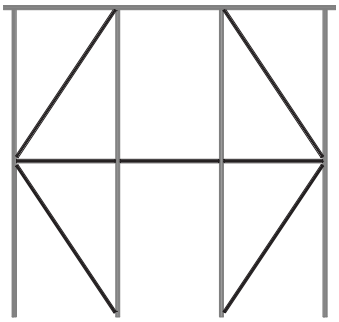
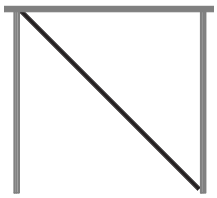
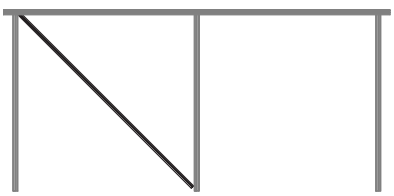
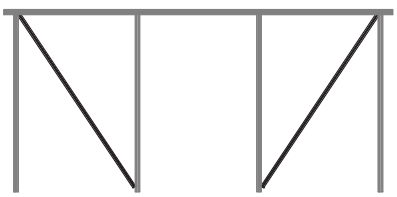
Deflection is limited to L/100

LATERAL BRACING LAYOUT

Lateral brace installation

- Kattsafe platform design allows for free-standing platforms of up to 6000mm.
- Platforms above 3000mm require a horizontal brace midspan of the post in all bays.
- For long platforms exceeding triple span, up to 30m, lateral bracing is required in the first and last bay only.
- For long platforms from 30 - 50m, lateral bracing is required in the first centre and the last bay only.

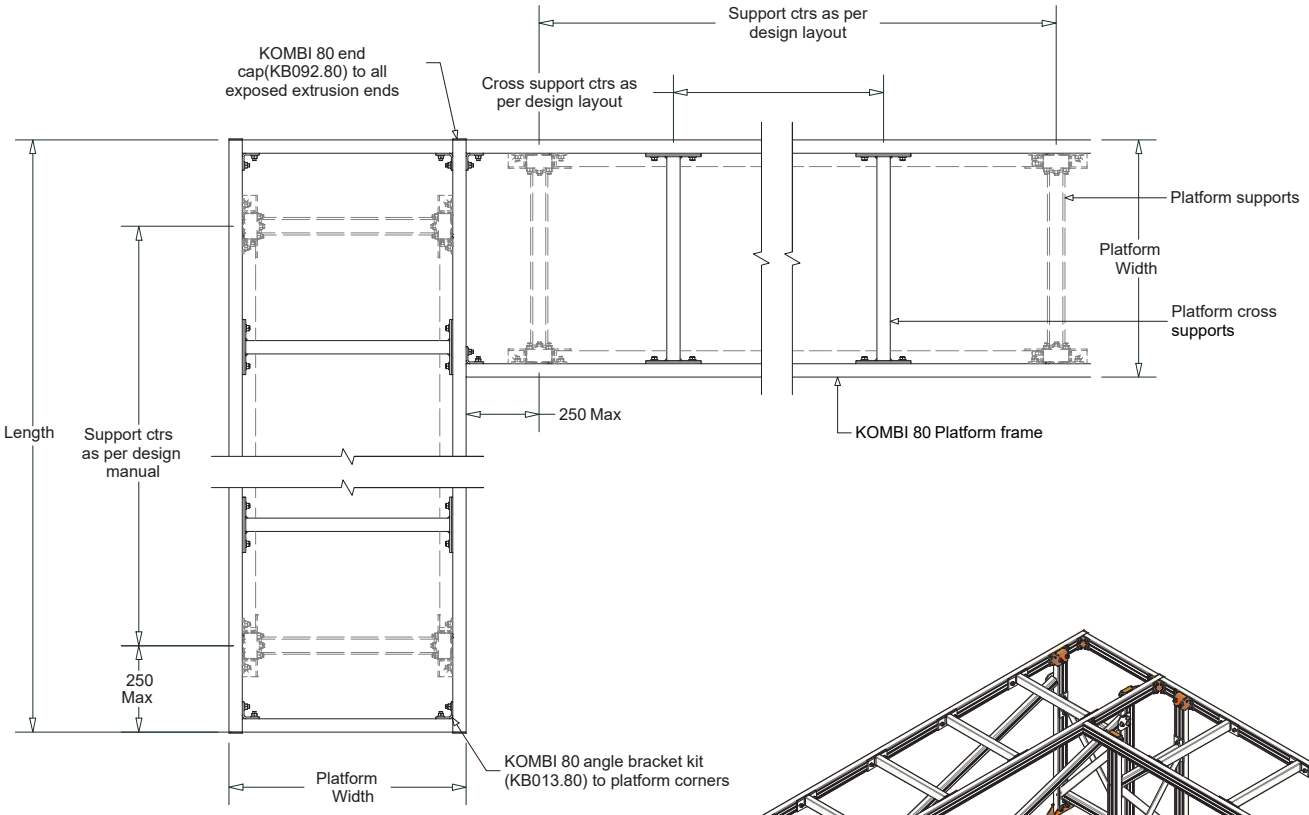


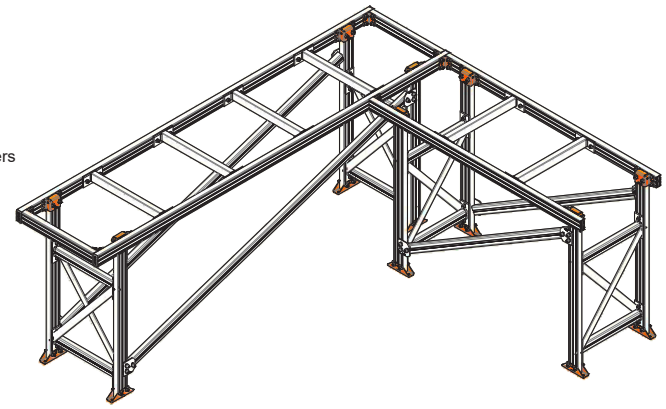
Platform height (mm)	Single span	Double span	Triple span or more
3000 - 6000			
1000 - 3000			
0 - 1000	 No bracing required	 No bracing required	 No bracing required

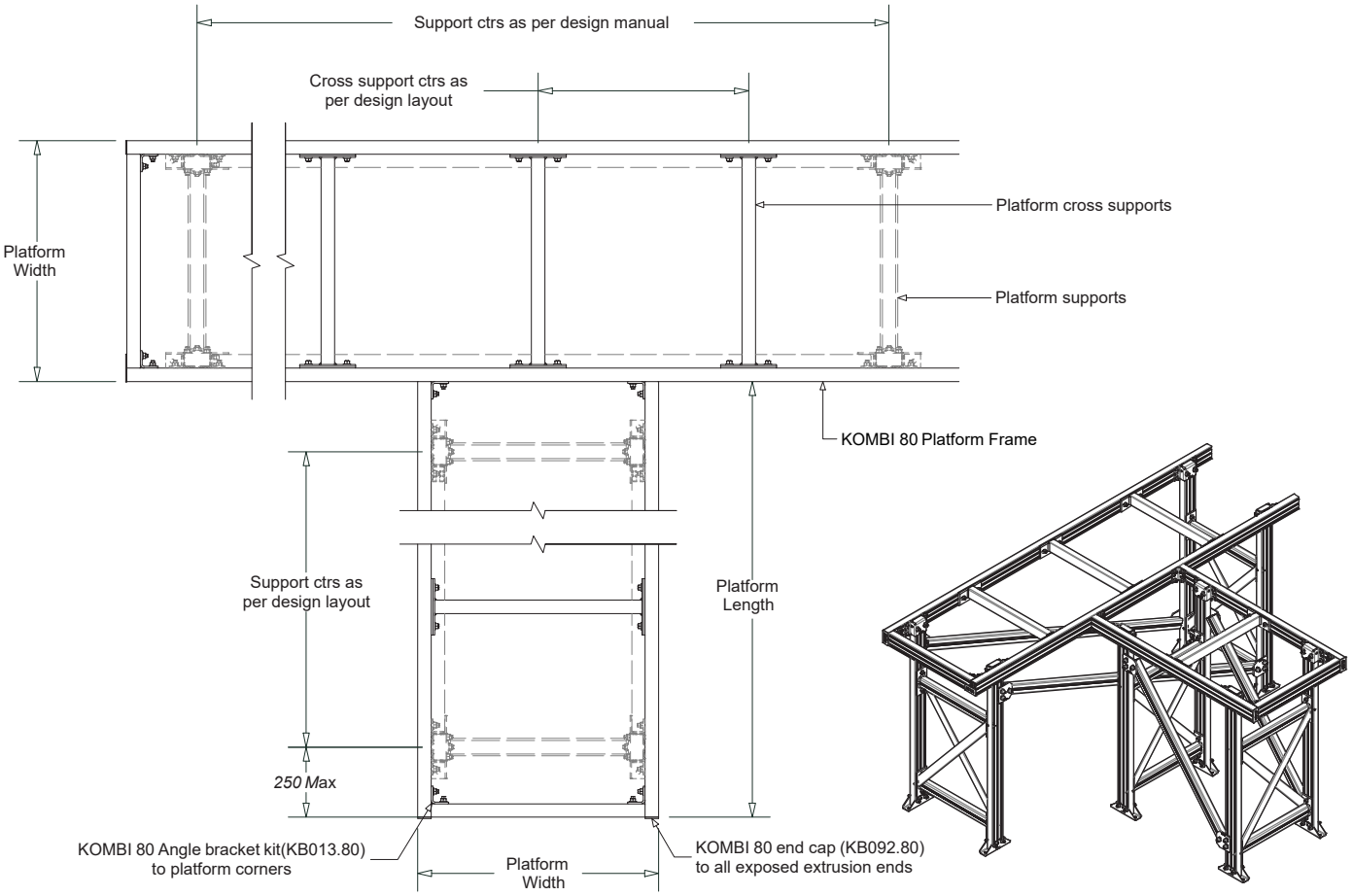
PLATFORM SET OUT CONFIGURATIONS

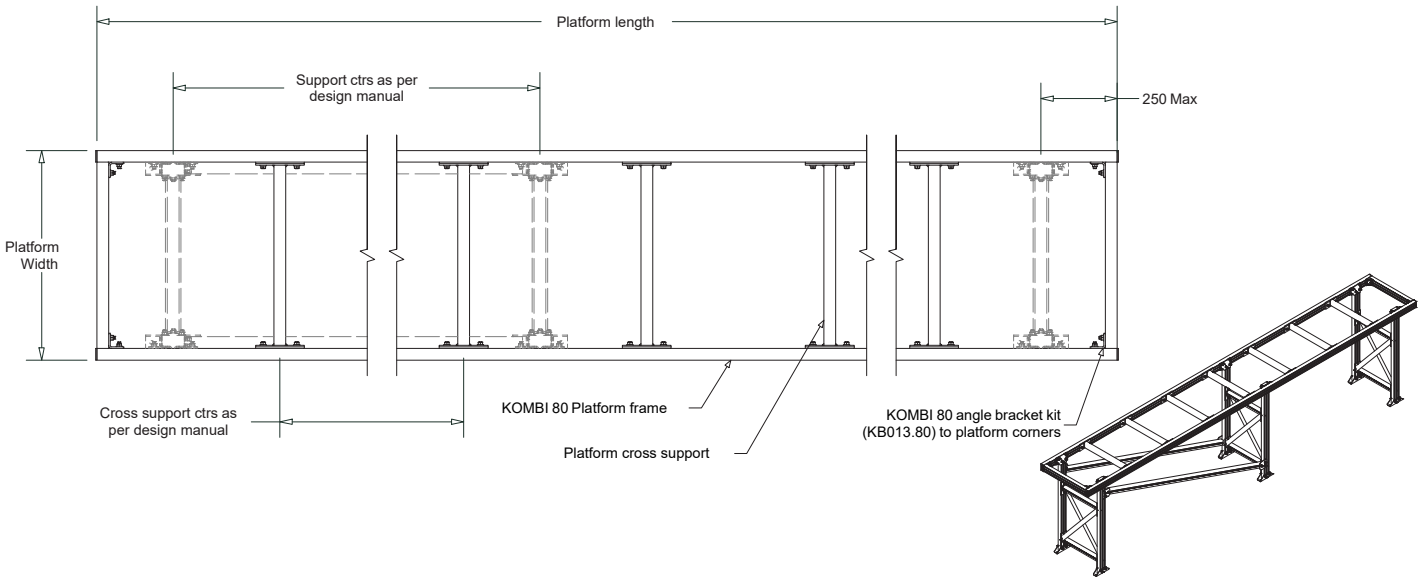
Platform set out guidelines

- Platform cross supports positioned at 600mm centres.
- Post supports positioned as close to end of platform as possible, (250mm max from outside edge of platform to centre of post)





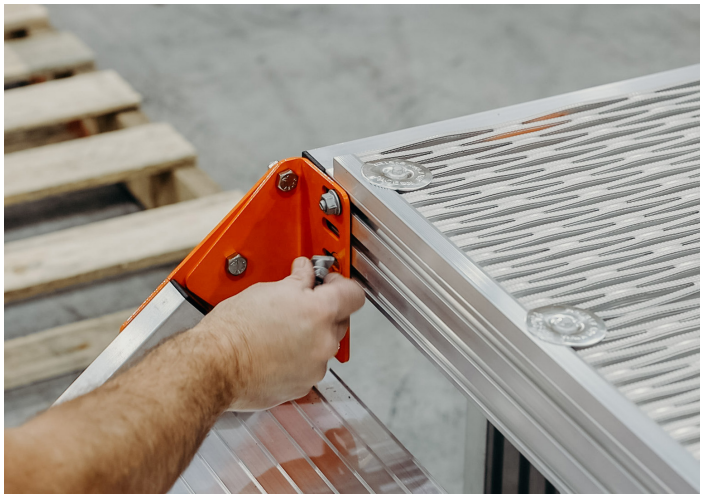




T-BOLT INSTALLATION PROCEDURE

Installation

- Undo the nut to the extent of the bolt.
- Install t-bolt and tighten.
- Ensure correct t-bolt lock position by checking the slot on the end of the bolt is perpendicular to the extrusion slot.



Correct positioning

Slot perpendicular to extrusion slot.

Incorrect positioning

Slot NOT perpendicular to extrusion slot.

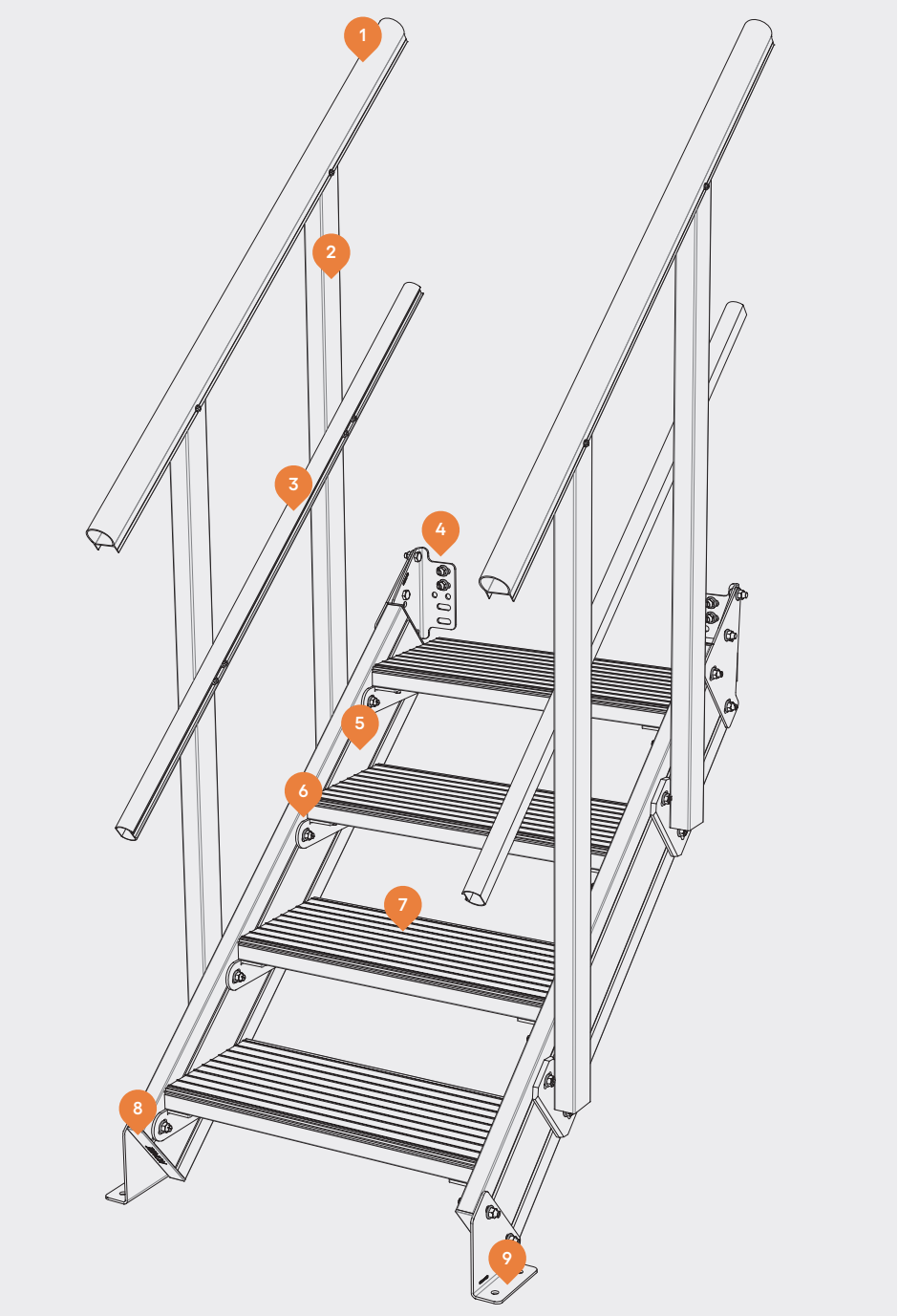
STAIR ASSEMBLY

Primary modules

1. Handrail
2. Handrail post
3. Kneerail
4. Stair mount bracket
5. Stair stringer
6. Tread bracket
7. Stair tread
8. End cap
9. Stair foot

Stair assembly video

Tread calculator



Installation requirements

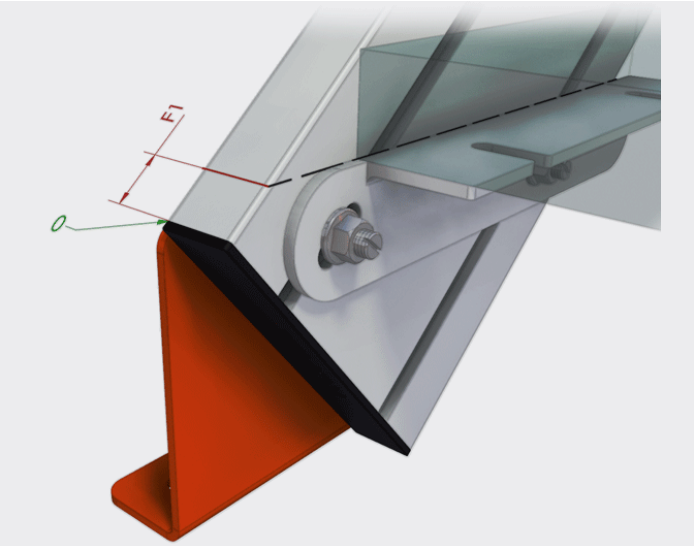
- Minimum inside distance between stair stringers to be not less than 600mm.
- Clear width between handrails to be no less than 550mm.
- The number of treads in a flight must not be less than 2 or greater than 17.
- Treads are allowed a maximum of 5mm variation in spacing as per AS1657: 2018.

STAIR INSTALLATION PROCEDURE

Step 1: Attach stair tread bracket

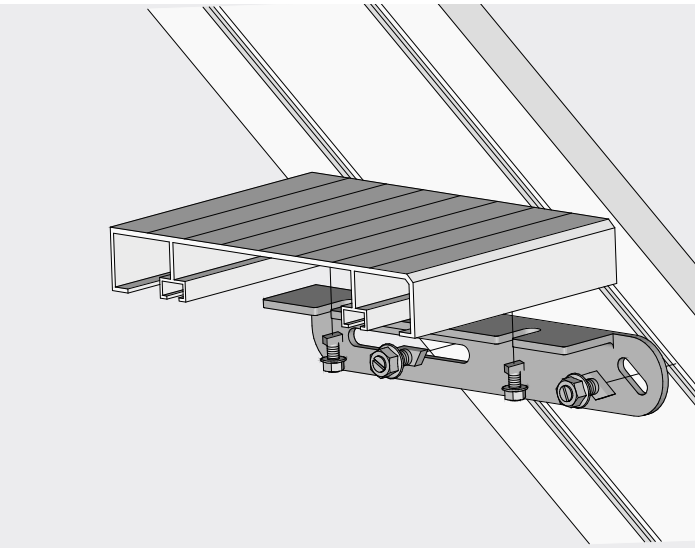
Align top of stair tread bracket with front and rear tread set out measurements.

⚠ A maximum of 18 risers per stair is allowed after which a change in direction or landing platform is required.



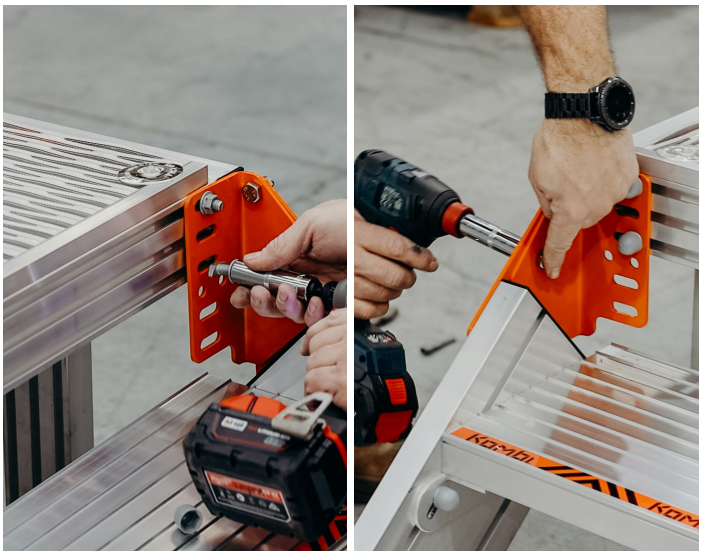
Step 2: Attach stair tread to stringer

- Align the stair tread to the top of the angle.
- Inset a t-bolt into the slot on the stair tread and through the stringer brackets.
- Ensure the stair tread is firmly against the stair stringer.



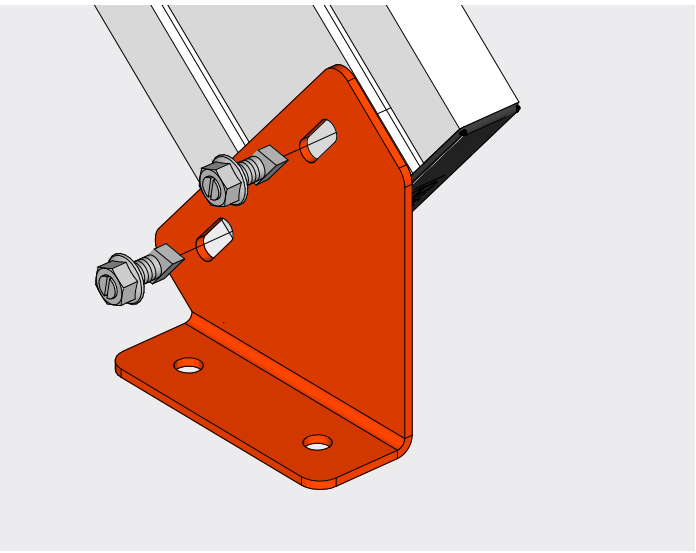
Step 3: Attach stair to platform

- Align the 'v' groove with the end of the stair stringer extrusion, making the bottom edge of the bracket is to align flush with the end of the stringer extrusion.
- Secure using two t-bolts in the slots in each bracket.



Step 4: Attach stair foot

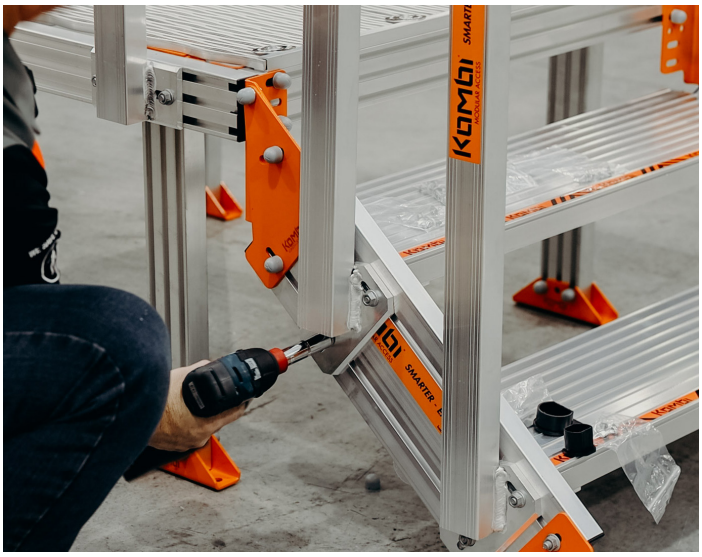
- Adjust the stair foot to suit the ground angle
- Secure using two t-bolts into the stringer



HANDRAIL INSTALLATION PROCEDURE

Step 1: Attach handrail post

- Each stair requires a left and right hand post.
- Posts to be positioned at a maximum of 2000mm centres.
- Post to be set vertical for any stair angle.
- Secure using two t-bolts into the stair stringer.



Step 2: Attach handrail to handrail post

- Secure handrail to post using 2 x 16mm tek screws.
- Insert handrail end caps and secure using 2 x 16mm tek screws.

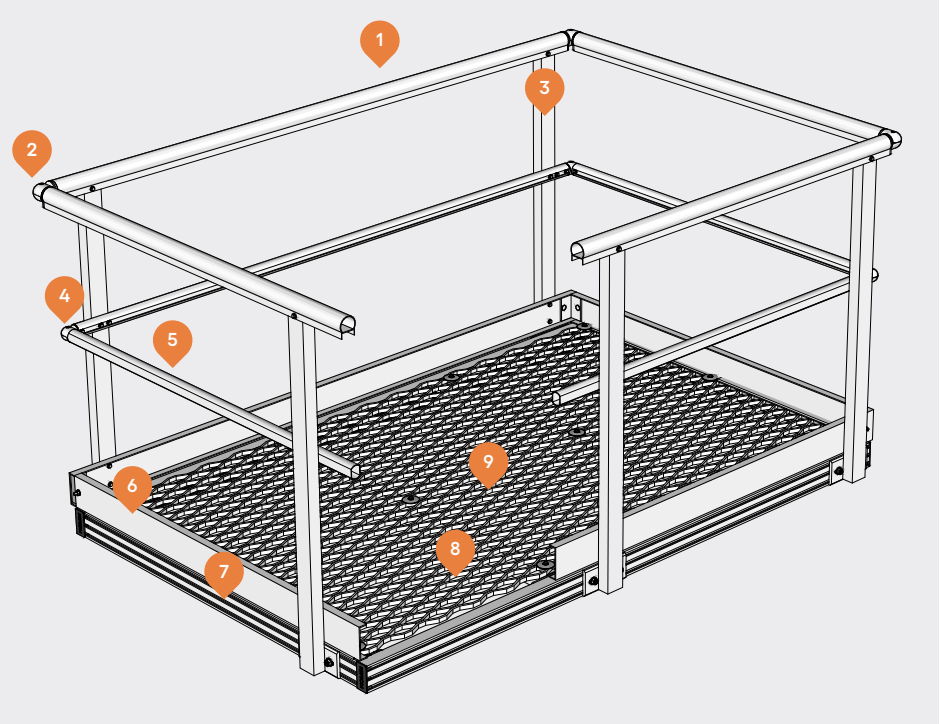
Step 3: Attach kneerail

- Secure kneerail to post using 2 x 48mm tek screws.
- Insert kneerail end caps and secure using 2 x 16mm tek screws.

PLATFORM ASSEMBLY

Primary modules

1. Guardrail
2. Corner
3. Guardrail post
4. Kneerail corner
5. Kneerail
6. Toe board
7. Platform beam
8. Cross supports
9. Open mesh aluminium deck



Platform assembly video

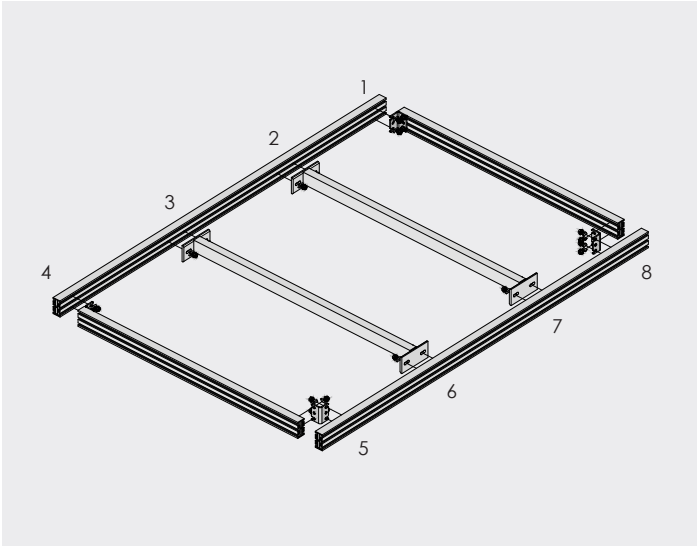
Installation requirements

- Platform mesh aperture to be a maximum of 15mm where persons have access to or work beneath the platform. The GW334 narrow width deck must be used in this application.
- Guardrail posts must be spaced at a maximum of 2000mm centres.
- Maximum height between underside of handrail to top of kneerail is 450mm.
- A platform toe board is required where an object could fall from the platform onto an area that can be accessed by persons. The maximum gap between a toe board and the deck is 10mm.
- Minimum opening between rails (measured between kneerails) is 550mm.

PLATFORM INSTALLATION PROCEDURE

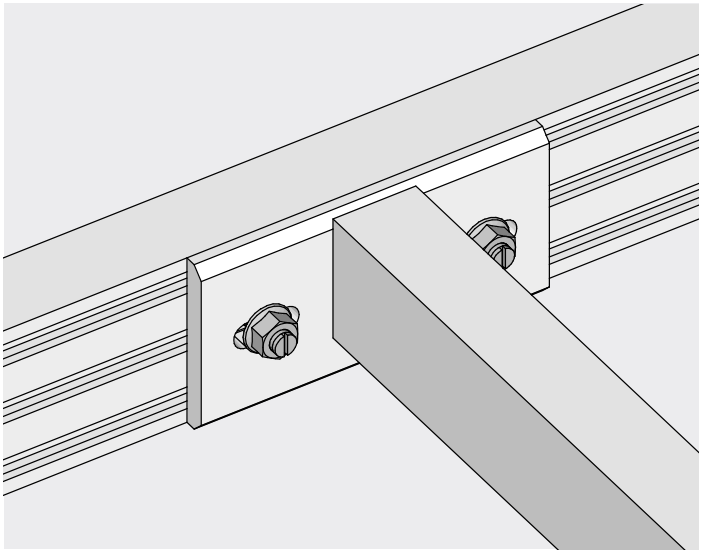
Step 1: Assemble platform

Assemble the corner brackets, platform cross supports and platform beams together in order of numbers shown in the diagram below.



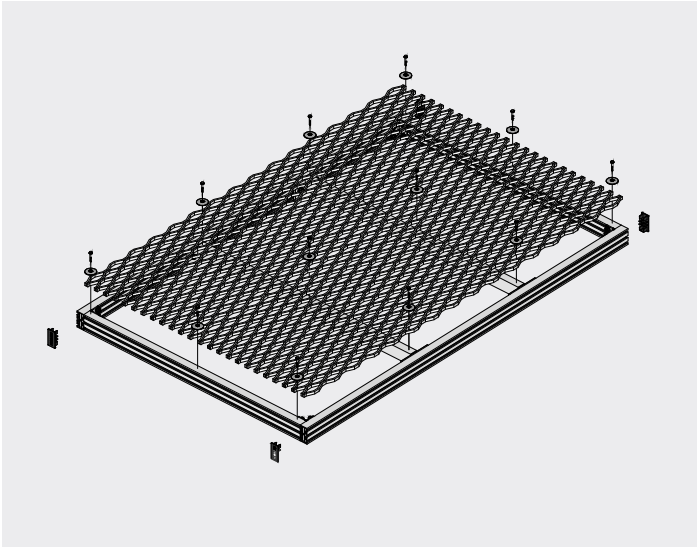
Step 2: Assemble platform cross support

- Secure cross support to platform structure using two t-bolts.
- The top of the cross support must be level with the platform beam.
- Space cross supports at a maximum of 600mm centres.



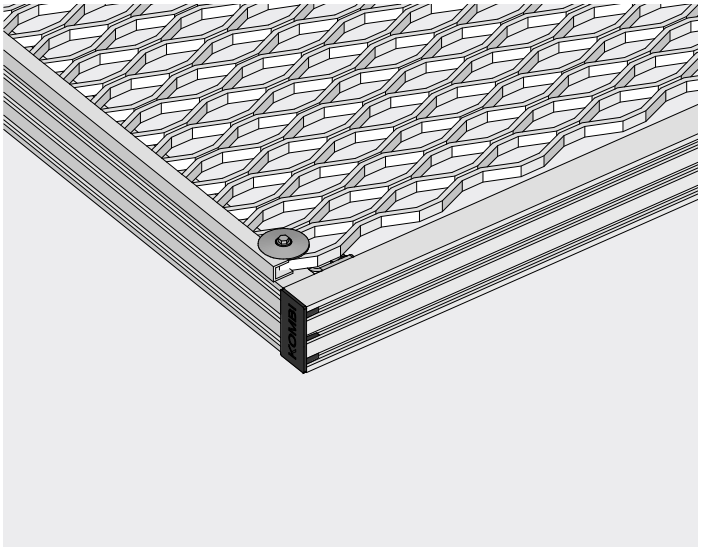
Step 3: Assemble aluminium deck

- Fix aluminium mesh deck to cross supports using 12 - 14 x 35mm tek screws with fixing discs.
- Three fixings are required for each cross support. Use the centre fixing to secure both panels.
- Aluminium mesh may need to be trimmed to fit.



Step 4: Assembly deck edge bar

- The mesh edge bar is secured by ensuring the fixing disc captures the edge bar when tight.
- Secure the edge bar with three fixings discs



GUARDRAIL INSTALLATION PROCEDURE

Step 1: Attach guardrail post to platform

Secure the guardrail post to the platform using two t-bolts.

⚠ Two bolts must be used in the centre slot of the 80 beam for maximum stability.

Step 2: Attach guardrail

Attach guardrail to the post using two 16mm tek screws.

Step 3: Attach kneerail

Attach kneerail to the post using two 16mm tek screws.

Step 4: Attach kneerail and guardrail elbows

Insert the elbows into extrusions and secure using a 16mm tek screw each side.

⚠ Ensure the hinge screw in the elbow is tightened to provide rigidity.

Step 5: Attach end caps

Insert end caps to extrusions and secure using a 16mm tek screw.

Step 6: Attach toe board to guardrail

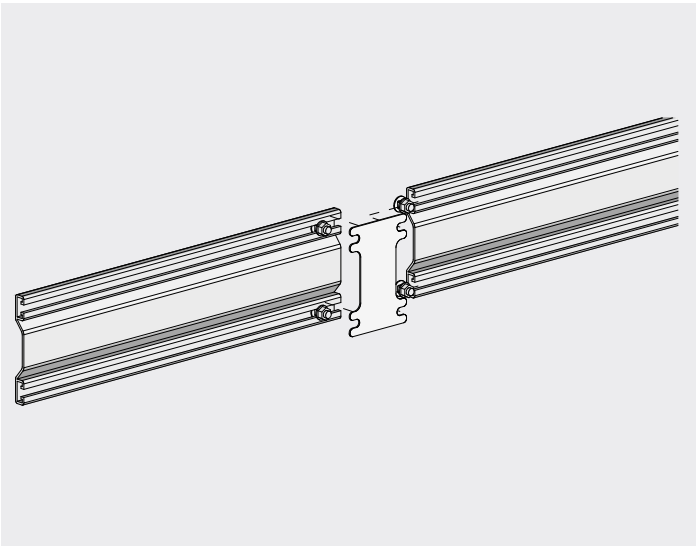
Attach toe board to guardrail using two 20mm tek screws.

Step 7: Attach toe board corner

Connect the toe board corners to the toe board using two M8 35mm cup head bolts.

Step 8: Attach toe board mid span

Connect the toe board mid span to the toe board using four M8 35mm cup head bolts.

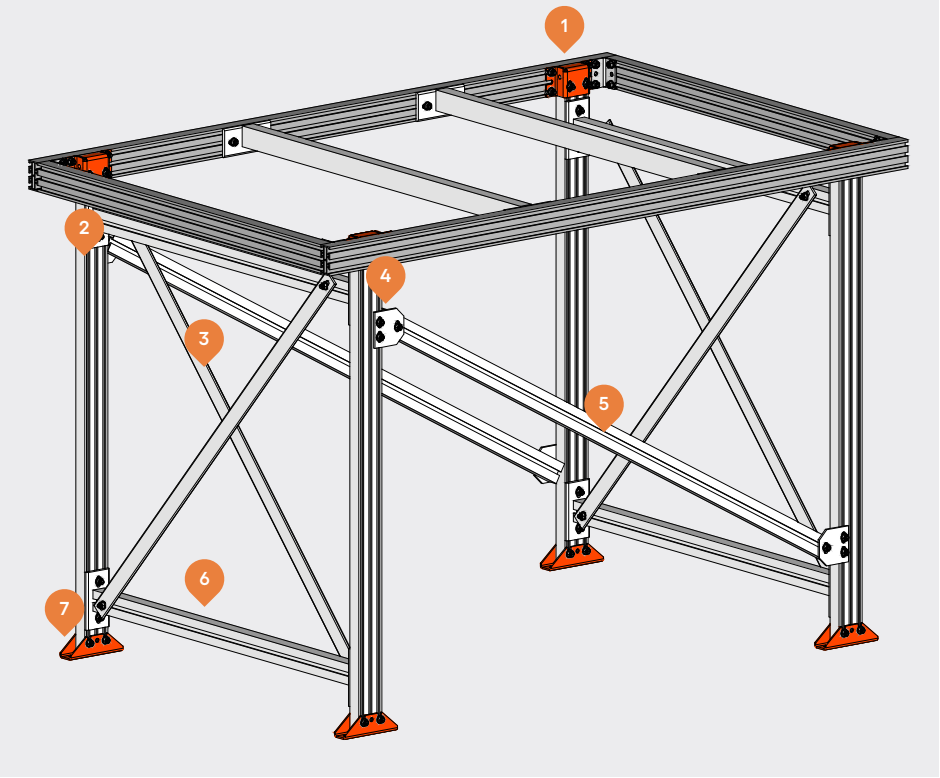


POST SUPPORT ASSEMBLY

Primary modules

1. Top support bracket
2. 80 Post
3. Brace strap
4. Lateral brace attachment
5. Lateral brace
6. Horizontal bracing strut
7. Post support foot

Platform assembly video



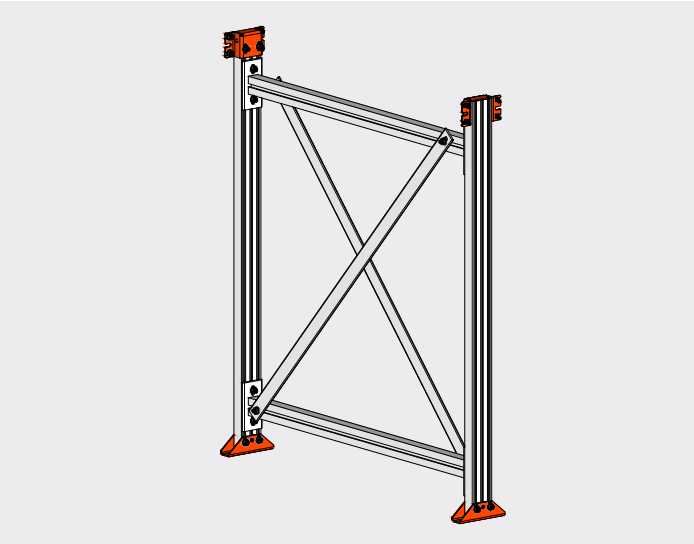
Installation requirements

- See bracing configuration tables for set out of horizontal braces, bracing straps and lateral braces.
- Lower horizontal brace strut is set at 150mm above the bottom of the post.

POST SUPPORT INSTALLATION PROCEDURE

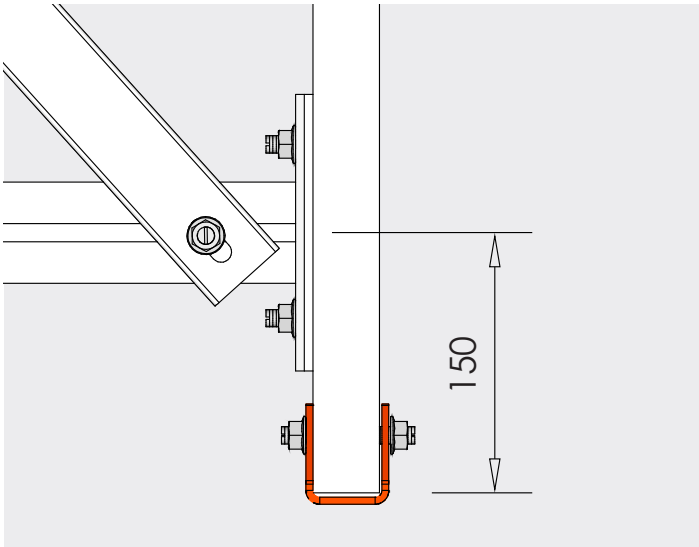
Step 1: Assemble

Assemble all posts and horizontal bracing struts using t-bolts



Step 2: Install horizontal brace strut

- Secure to post using two t-bolts.
- Position lower horizontal brace 150mm above bottom of post.
- Secure the brace strap using a t-bolt



Step 3: Install support foot

Secure foot to post using four t-bolts, two either side of the foot.

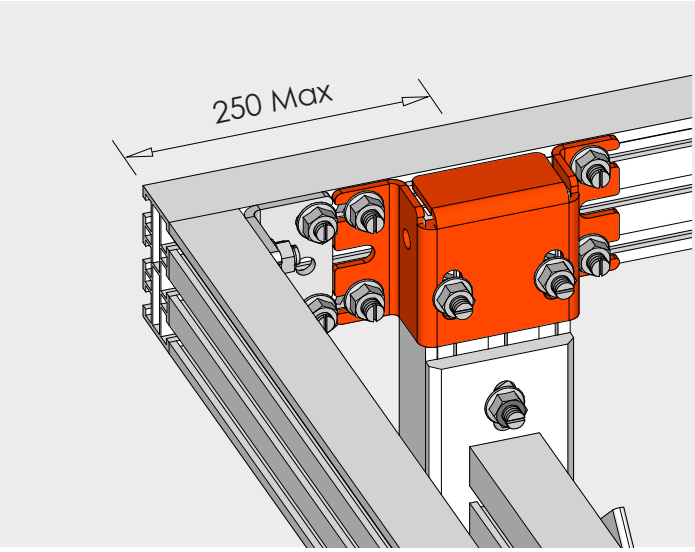
Step 4: Attach post top support bracket to post

Secure the bracket to the posts using two t-bolts.

⚠ Should this bracket be required to support a suspended platform, a clearance hole must be drilled through the post extrusion using the bracket suspension hole with a M10 bolt.

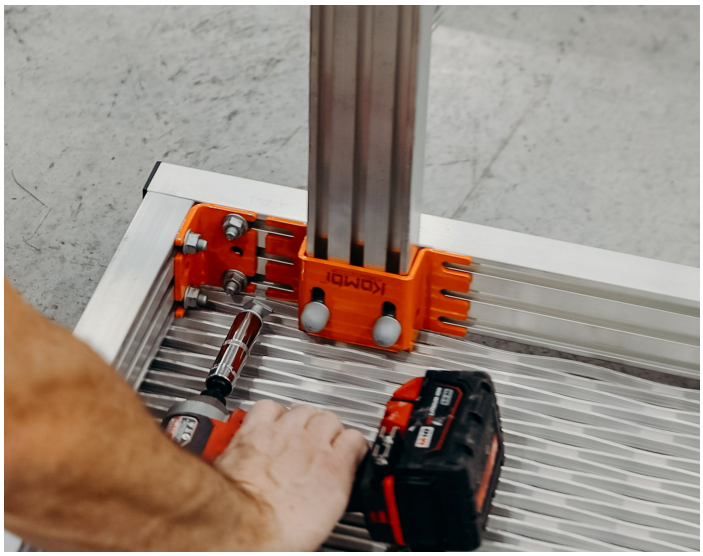
Step 5: Postion post support on platform

Position the post support module as cloa as possible to the corner bracket, but no more then 250mm from the centre of the post to the outside edge of the platform.



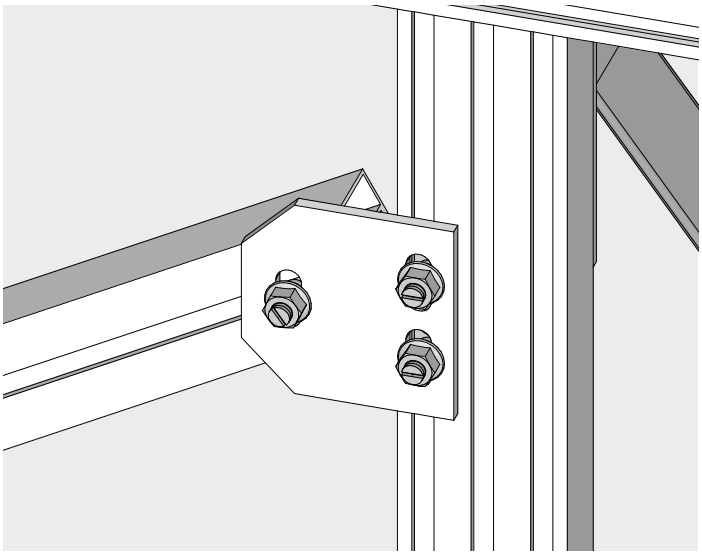
Step 6: Attach post support to platform

- Attach the assembled post support module to the platform.
- For smaller platforms, invert the platform and drop the support module into the platform.
- Secure the post support bracket to the platform using four t-bolts.



Step 7: Install lateral bracing

- Attach lateral brace to the connector plate using a t-bolt.
- Secure the lateral brace to the post using two t-bolts.
- See lateral brace configuration table for brace set outs



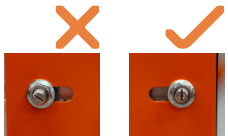
MAINTENANCE CHECKLIST

Kattsafe platforms and stairs require very little maintenance, however installed systems should be inspected at 12 month intervals using the checklist below.

The checklist below outlines key checking criteria required to ensure the safe use of this system. Any item of concern not shown on the checklist must be noted on the maintenance report and brought to the attention of the workplace manager.

Items ticked PASS - YES means they conform with the required checking criteria and are suitable for normal use until the next recertification date. System data plates must be updated showing current check date and next check date.

Item ticked PASS - NO means they do not conform to the required checking criteria. These items must be clearly tagged ‘ Do Not Use’ and the required corrective actions put in place. The maintenance report must clearly document all non-conforming criteria.

Component	Inspection criteria	Pass Y/N	Corrective action	Completion date
Platforms and stairs 	No signs of deformation, deterioration or damage to platform, post support, stair and guardrail modules.			
	All system connections in place and secure.			
System use	System is being used for its intended purpose and is not supporting a load above design capabilities.			
Fixings 	All bolts are in place and secure. Ensure that slots on all bolts are perpendicular to the extrusion slot and tightened to 60 Nm.			
Clean up	There is no build up of soil or contaminants at the base of the system or any part of it in water.			
	Walkway surface and steps clear of all debris or build up of any dirt or grime.			
Data label 	System data label attached and clearly visible. All data filled out including last and next inspection date.			

TECHNICAL STATEMENT

Aluminium extrusion

Criteria	Data
180 Extrusion	Aluminium grade 6005A-T5
80 Extrusion	Aluminium grade 6005A-T5
60 Extrusion	Aluminium grade 6106-T6
Bracing straps	Aluminium grade 6106-T6
Walkway mesh	Aluminium grade 6106-T6
Handrail	Aluminium grade 6106-T6
Kneerail	Aluminium grade 6106-T6
Toe board	Aluminium grade 6106-T6
Stainless steel brackets	Stainless steel grade 316
Aluminium brackets	Aluminium grade 5083-T5

Platform loads

Criteria	Data	Notes
Live load	2.5kPa	In accordance with AS1657:2018.
Concentrated loading	1.1kN	Applied through 100 x 100 pad at any point.
Mesh slip rating	R11	
Max free standing height	6000mm	Subject to Kattsafe technical advice.
Platform support spans	80 Series 600 Series (W) Platform - 3300mm max spacing 900 Series (W) Platform - 2700mm max spacing 1200 Series (W) Platform - 2500mm max spacing 180 Series 600 Series (W) Platform - 6000mm max spacing 900 Series (W) Platform - 5500mm max spacing 1200 Series (W) Platform - 5100mm max spacing	Deflection limited to the span length divided by 100.
Platform mesh openings	Personnel access under platform.	Where personnel is required to access underneath platform narrow mesh (GW334) must be used.

Stair loads

Criteria	Data	Notes
Live load	2.5kPa	Applied to tread and landing.
Deflection	L/100 or 40mm	Whichever is the lesser.
Tread loadings	2.2kN per lineal metre or a concentrated loading of 1.5kN.	In accordance with AS1657:2018 Section 7.1.1.
Max stair treads	17 treads, 18 risers	In accordance with AS1657:2018.
Stair widths	Max 1500mm wide	
Stair angles	26 degrees to 44 degrees	Ideal angle is 40 degrees. Angle can be increased to reduce footprint.
Stair risers	Riser : 130 < R < 225 Going : 215 < G < 355 Combination : 540 < (2R + G) < 225	All risers and goings in the same flight of stairs shall be of uniform dimensions within a tolerance of + 5mm.
Limitations of use	Not suitable for BCA / NCC stair design.	

Design wind criteria

Criteria	Data
Region	A1
Regional Gust Wind Speed	V100 = 41m/s
Terrain Category	2
Topographical Multiplier	MT = 1.0
Terrain/Height Multiplier	Mzcat = 0.96
Shielding Factor	MS = 1.0

Fastners

Criteria	Data
Material	Stainless Steel 316
T-bolt	M10 x 25mm, 316 SS
Nut torque	60Nm

Handrail

Criteria	Data	Notes
Platform guardrail post spacing	2000mm max	
Max handrail height	1000mm	Typically 987mm standard from deck to top of handrail
Kneerail height below top rail	450mm from top of kneerail to underside of kneerail.	
Platform toe board	Use GW320 100mm high	Required if an object could fall from a platform or landing onto an area to which access by persons is available.
Limitations of use	Not suitable for BCA / NCC stair design.	

Dissimilar metals

Criteria	Data	Notes
Aluminium to concrete	To be painted with a bitumen paint.	
Aluminium to roof deck	Shall be separated with EPDM tape.	
Aluminium to stainless steel	Brackets to be powder coated or EPDM separated.	This does not apply to fasteners. Ref AS/NZS 1664.1:1997 Section 5.1

Weight

Criteria	Data	Notes
Walkway mesh 13mm x 600mm wide	6.5kg / m2	
80 Extrusion	Approx 2.8kg / m	
180 Extrusion	Approx 4.2kg / m	
Platform including walkway mesh	Approx 18kg / m2 (Excluding handrails)	This is an approximate weight only. Depending on different combinations this can vary.

TECHNICAL SPECIFICATION

Platforms and stairs

PS

A proprietary modular stair and platform system designed to allow on-site assembly and customisation to suit exact site parameters, reducing design and delivery lead times. System design, supply, layout, installation and certification must be conducted as per the manufacturer's installation instructions and current standards.

Materials

- High grade structural aluminium.
- Fixing brackets and joining plates manufactured from profiled stainless steel plate, powdercoated.
- T-bolt manufactured from stainless steel with anti-seize coating.

Dimensions

- 80 extrusion: 80 x 38mm.
- 180 extrusion: 180 x 32mm.
- Platform support extrusion: 58 x 38mm.
- Stair tread: 250 x 40mm.
- Handrail post extrusion: 58 x 38mm.
- Aluminium expanded mesh: 600 x 13mm.

Weight

- 80 extrusion: 2.6kg/m
- 180 extrusion: 4.0kg/m
- Platform deck (aluminium mesh only - 600mm wide): 4.2kg/m2
- Stair tread: 3.9kg/m

Fixings (refer to installation manual)

- T-bolt: M10 x 25
- Tek screw: 12g stainless steel

Rating

- Platforms and stairs are designed to AS1657-2018
- Working load limit 2.5kPa

Compliance

Platforms and stairs are designed to conform with requirements of Australian Standards AS1657:2018 and relevant statutory OHS codes of practice and guidelines.

Testing

Testing and performance based on requirements of Australian Standard AS 1657-2018 and AS/NZS 117 under live load conditions.

Product warranty

10 Years from date of purchase subject to correct installation. Use and maintenance to be in accordance with manufacturer's specifications and recommendations. (This excludes wearing parts).

Inspection and maintenance

Inspection and certification required every 12 months by competent person in accordance with manufacturer's specifications and requirements of Australian Standards AS/NZS 1891 and AS/NZS 5532. (Refer installation manual)

Important note

- Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty
- The roof structure needs to be engineered to support the additional load of a suspended walkway.

WARRANTY INFORMATION

Warranty period on this system:
10 years from date of purchase

Should you have a warranty claim as a result of a defect the following procedure must be followed:

Identify the following information:

- The product/system name and code number.
- The date of purchase/installation.
- Installation company details.
- The installation identification number.
- The name of the company using this system.
- A description of the defect/warranty claim.
- The periodic system maintenance report.

Forward the above information to sales@kattsafe.com.au or contact technical helpline, 1300 301 755.

Terms and conditions

All warranty claims must be made in writing within 14 days of the appearance of the defect.

Incorrect installation or work done by a non accredited Kattsafe system installer will void all warranty rights.

Systems that have been installed using non proprietary equipment will void all warranties.

System roof/cladding and concrete penetration seals are not covered in this warranty.

Systems/components that have not been maintained in accordance with manufacturer's/legislative requirements will void warranty.

Systems used by incompetent persons or use with non compatible accessories ie. harness gear, lanyards, travellers, fall arrestors etc. will void warranty.

Systems/components used for purposes other than their intended use will void warranty.

General wear and tear is expected and will depend on the frequency of use and is not covered by warranty.

Product brochure
Platforms and stairs

Installation manual
Platforms and stairs

QMS Certification
ISO 9001:2015

Find all related products and resources on our website.
kattsafe.com.au

Kattsafe

Height access
and fall protection

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