Kattsafe Height access and fall protection

INSTALLATION MANUAL

RUNG LADDERS

Kattsafe rung ladders provide safe and easy access to elevated areas such as roof tops, ceiling spaces and maintenance platforms.

Product brochure
Rung ladders

Installation manual
Rung ladders

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

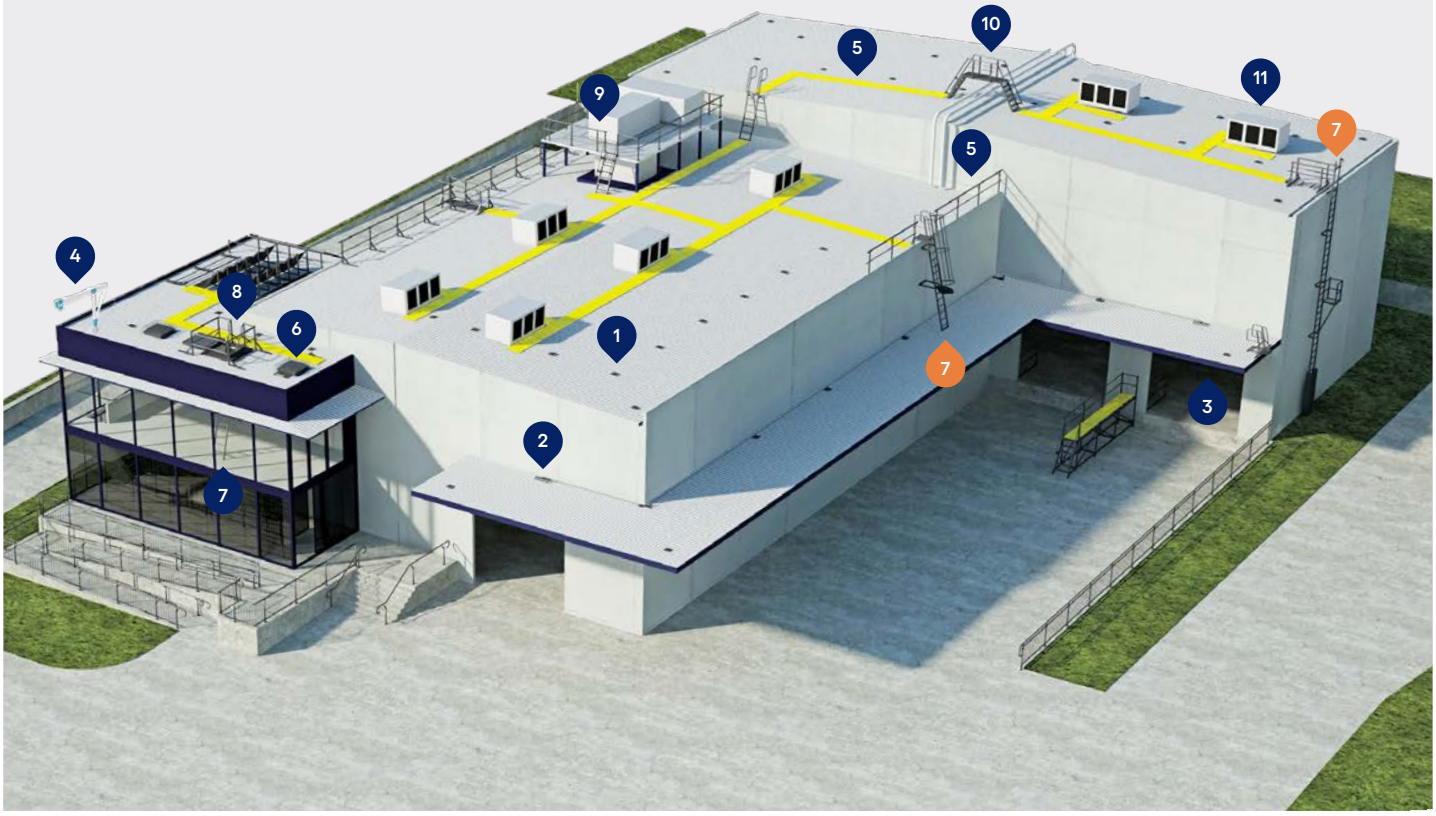
Commercial building height access and fall protection requirements

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



RUNG LADDERS

Rung ladders are a light weight high strength access solution designed to be customised on site to suit project specific requirements.

Front and rear t-slot attachment on stile

Reducing cage and bracket interference providing unlimited adjustability.

Adjustable height egress platform

For simple leveling and top rung compliance.

T-bolt

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

Modular cage

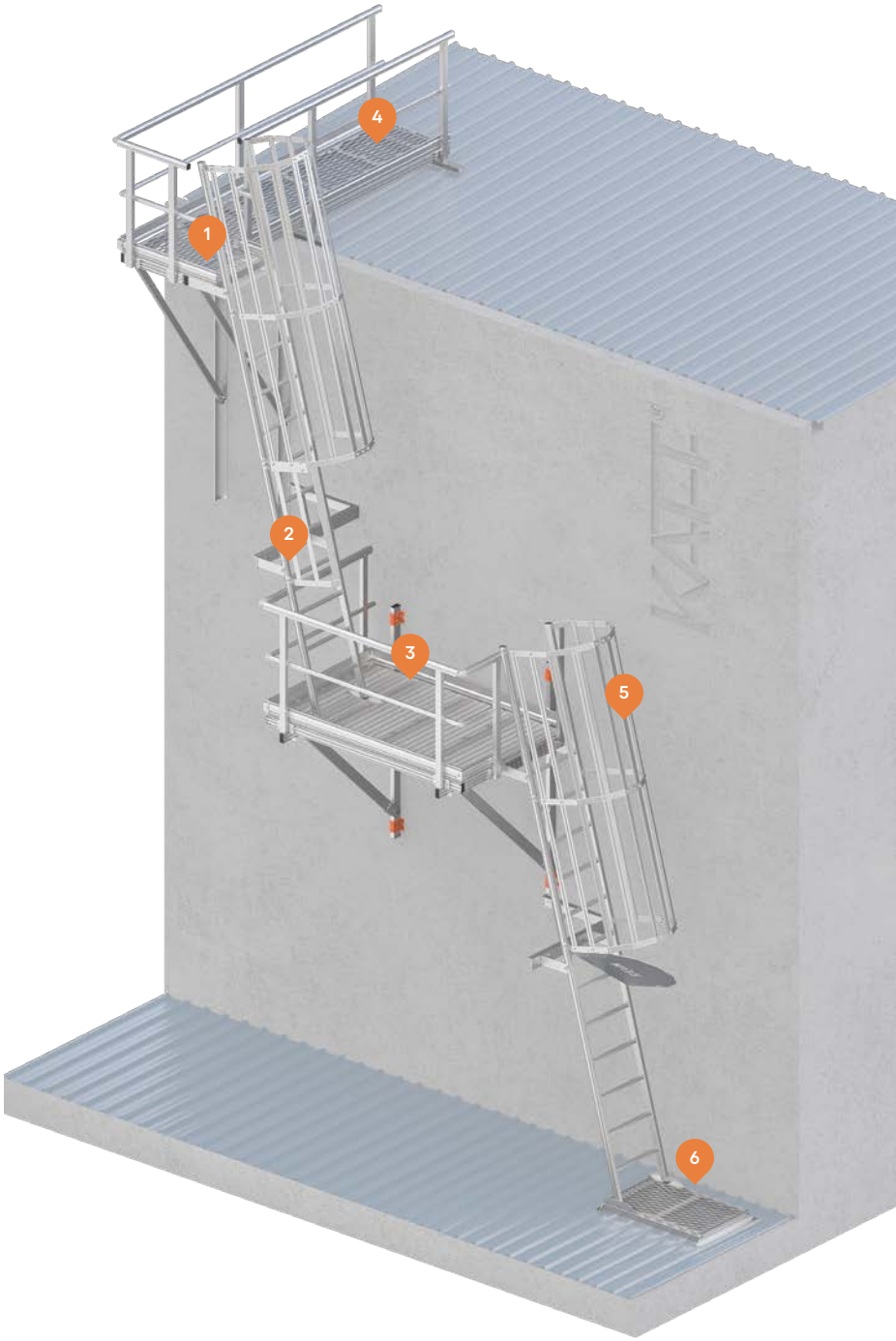
Adjustable cage length with T-bolt attachment to ladder.

Modular landing

Supplied with AS1657 compliant mini mesh with ability to mount to concrete or metal cladding.

Ladder support landing

Prefabricated unit for simple installation.



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER CONFIGURATIONS

Mini angled rung ladder

Suitable for access between varying roof levels up to 3.5m

Angled caged rung ladder

Primary access to ceilings and main roof areas up to 6.0m, and access between varying roof levels above 3.5m

Vertical caged rung ladder

Primary access to ceilings and main roof areas up to 6.0m, without the need for a fall arrest system.

Vertical fall arrest rung ladder

Primary access to roofs and elevated locations up to 6.0m. A vertical ladder requires a ladder fall arrest system for operator safety.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RUNG LADDER COMPONENTS

RL405 Standard ladder head

RL406 Vertical line ladder head

RL410 Ladder body

RL411 Ladder body

RL415A Angled grabrail set - 75°

RL415V Vertical grabrail set - 90°

RL421.400 Gusseted fixing bracket

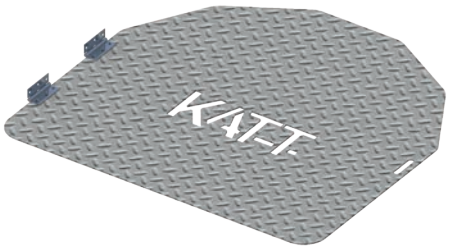
RL421.280 Standard fixing bracket

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RL421S.280 Suspended fixing bracket

RL424 Modular cage ladder

RL425 Ladder cage gate



RL426 Lockable ladder access door

RL429M Midway landing platform

RL432A.2400 Adjustable ladder head access kit - 2.4m

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

TOOLS AND EQUIPMENT

Cordless drill

Spirit level

5/16 nut setter

Drop saw

Pitch meter

Marking pen

Tape measure

13 & 18mm socket and wrench

Impact wrench

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

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 systems who hold a current Kattsafe approved installer certificate.
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 access and fall protection 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 suitability of connection to structure.
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 OH&S documentation, including a Job Safety Analysis and Work Method Statement and obtain consent from responsible person in workplace prior to commencement of work.
7. Installers must be authorised and accredited by Kattsafe and possess valid industry licenses, be appropriately trained, and comply with all relevant OH&S legislation prior to installation of this product.
8. Do not modify or remove any element of the support structure without prior authorisation by a qualified engineer.
9. Decorative coatings and coverings must be removed to ensure correct evaluation of structure prior to attachment of system
10. Any re-routing of electrical and/or other services must be carried out by qualified or authorised personnel.
11. Appropriate temporary access and safety equipment must be used during installation, such as platform ladders or scaffolding and fall protection anchorage points.
12. In case of emergency access and fall protection 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 system 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. (See operation manual.)

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.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

SYSTEM LIMITATIONS

Must be read prior to installation

1. Minimum structural requirements for attachment of rung ladders:
   - Steel purlin 100 x 1.5mm base metal thickness
   - Timber batten 70 x 35 F7 structural grade
   - Composite panel 75mm attached using through bolt system
2. Rung ladders are for single person use only rated to 150kg.
3. The preferred angle of rung ladders is 75°. Ladders positioned at 90° are permissible provided suitable fall protection is provided.
4. An enclosed cage is the preferred method of fall protection for rung ladders above 3500mm.
5. Rung ladders cannot be submerged in saline or any acidic liquids.
6. Rung ladder landings must be provided at the base and top of ladders if entry and exit surface is uneven or not level.
7. This system, under normal use and environment, has a minimum life expectancy of up to 10 years. A competent person's assessment and certification to confirm suitability for an additional 5 years use is recommended. This will depend on location, usage and scheduled maintenance as per manufacturer and legislative requirements.
8. Do not tamper with or make alterations to system components without manufacturer's consent.
9. This system is not to be used for tethering or lifting machinery or equipment.
10. The safety system must be recertified by a competent height safety inspector as recommended:
    - Non corrosive/mild environment – 12 monthly
    - Corrosive/harsh environment – 6 monthly (more frequent inspection may be required).
11. Any aluminium components fastened to dissimilar metals, should be separated with EPDM foam or tape.
12. Any aluminium in corrosive environments or in submerged situations (water/soil) must have appropriate corrosion protection provided - Eg special coatings or anodising must be applied - Refer to Kattsafe Technical Team.
13. There is no restriction on the maximum height of the rung ladder system.
14. It is important that the maximum vertical distance between landing platforms does not exceed 6.0m.
15. When ladders are mounted externally, it is important to ensure the required wind loadings are taken into account.
16. Rung ladder support fixing brackets must be spaced at no greater than 3.0m on a vertical or angled ladder.
17. Any distance greater than 3.0m between brackets, the rung ladder RL413 stile strengthener must be used.
18. Any structure supporting a rung ladder must be able to support 200kg per fixing bracket.
19. A vertical ladder with fall arrest device requires a stronger base support than a caged ladder system with no fall arrest.
20. A vertical fall arrest ladder system requires a base support to handle a 12kN dynamic load.
21. A caged ladder system with no fall arrest requires a base support to handle 400kg / 3.0m of ladder (includes weight of ladder).
22. The RL413 stile strengthener must be installed where the ladder fixing bracket spacing exceeds 3.0m (measured vertically).
23. Rung ladders can be used in suspended applications using the RL421S suspension bracket.
24. A suspended ladder is not suitable to be used with a fall arrest device unless specifically designed and fabricated to do so. Connection to the support structure is of critical importance due to increased load on structure.
25. The ladder cage base height must be positioned between 2.0m - 2.2m measured vertically from where the cage attaches to the ladder.

Kattsafe recommends that persons using fall arrest systems 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 height safety inspector.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

AUSTRALIAN STANDARDS SUMMARY

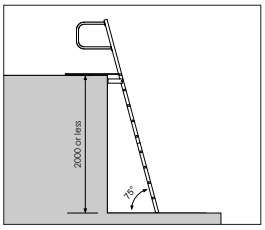


Figure 1

Rung type ladder 70° - 90°

Preferred angle - 75°

Application suitable for heights 2.0m or less.

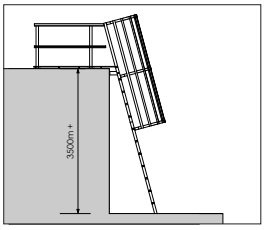


Figure 2

For ladders over 3.5m, fall protection is recommended. Angled ladders - cage protection is preferred. 2.0m lead-on kit required if over 2.0m in height.

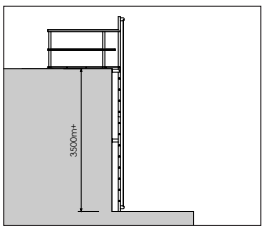


Figure 3

For ladders over 3.5m, fall protection is required. Vertical ladders, harness based fall arrest system is preferred. Note: This system must only be used if angled ladder system is not practicable. User competency training is required.

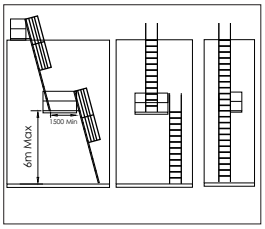


Figure 4

For ladders over 6m, a change in direction platform is required. Vertical ladders, a rest platform is required at max 6m intervals.

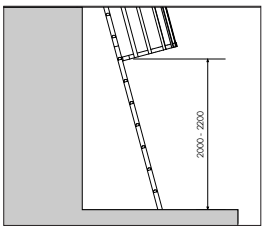


Figure 5

Ladder cage must be 2000-2200mm from base of ladder.

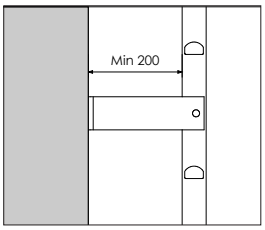


Figure 6

Minimum 200mm clearance required from back of rung to wall.

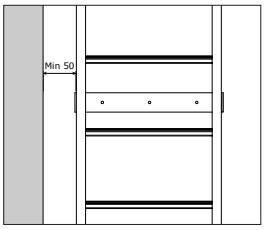


Figure 7

There shall be a minimum of 50mm hand clearance on the sides of the ladder except at the points where the brackets are attached to the ladder.

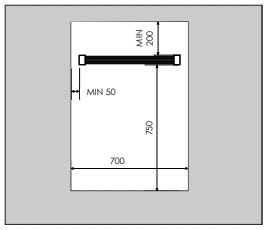


Figure 8

There must be a minimum of 200mm clearance behind the ladder (except for top rung). There must be 750mm clearance in front of the ladder and 700mm minimum width clearance.

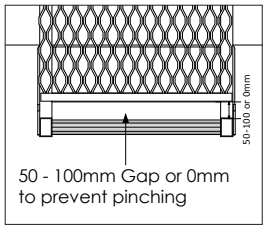


Figure 9

When walkway or landing is installed, there shall be a 50 - 100mm gap or no gap.

(Diagram shows no gap)

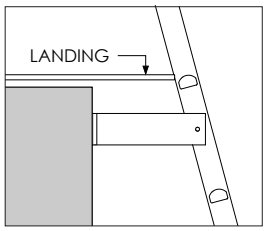


Figure 10

Top of rung must be level with landing (for any ladder).

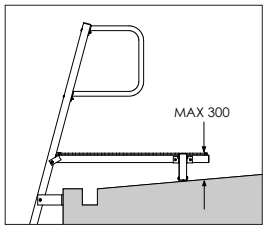


Figure 11

Difference in height no more than 300mm (single step) or 450mm with an additional intermediate step.

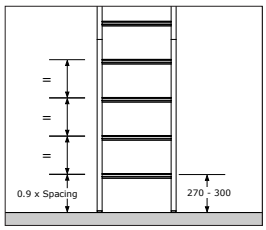


Figure 12

All rung spacing to be equal. Distance from base landing to 1st rung can be 270 - 300mm.

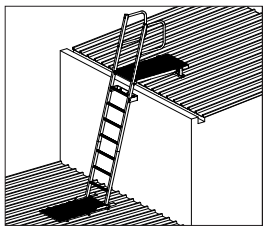


Figure 13

Top and lower landings required if roof pitch is not level or is an uneven surface.

- Top landing requires levelling after 3° in both directions.
- Lower landing requires levelling after 7° across slope but 3° inline.

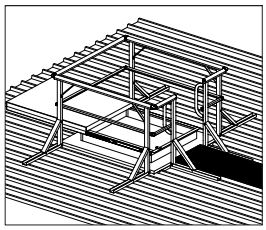


Figure 14

Guardrail protection is required on at least 3 sides of a roof access hatch.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

SYSTEM ASSEMBLY

1. Ladder head access kit secured to ladder head using the t-bolt system. Platform is adjustable to align with top rung.
2. Modular cage cut to length to suit ladder and secured to stiles using the t-bolt fastener.
3. Lockable cage gate attaches via hinges to ladder.
4. Ladder bodies assembled using splice join system.
5. Ladder bodies cut to suit ladder height. Connected to base support platform using the t-bolt fastener.
6. Ladder secured to structure using fixing bracket with the T-bolt fastener.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

FIXING BRACKET ASSEMBLY

The fixing bracket is designed to provide a secure attachment for the fixed ladder system. Fixing brackets must be spaced at 3000mm maximum between consecutive brackets. There are a range of different brackets depending on the ladder configuration and installation requirements.

Technical details

1. Fixing bracket loading – 200kg per bracket at 3.0m max. (excluding suspended ladders)
2. Suspended ladder brackets (RL421S.280) – 400kg per bracket at 2.8m max.
3. Suspended ladder brackets for vertical ladder with fall arrest system – min 4 brackets or 2.4m max spacing

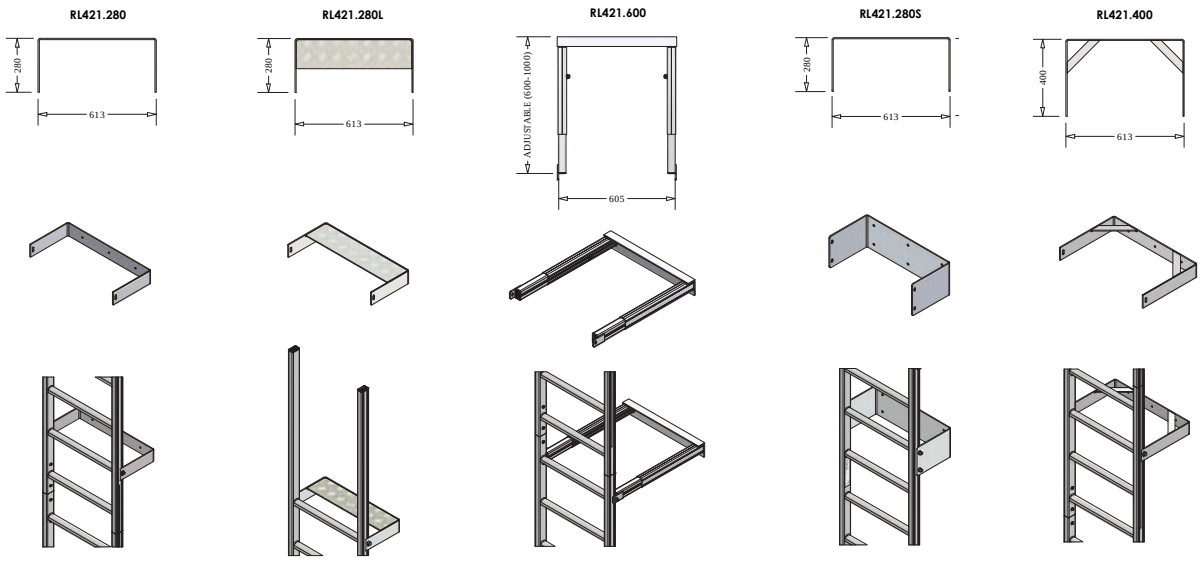
Structure type	Fastener type
Metal purlin min 1.5mm BMT	– Qty 2 x M10 Stainless steel bolt set – Qty 2 x M8 Toggle bolts – Qty 3 x 14G Tek screw (purlin 1.0mm min BMT)
Concrete panel 25mPa min	– Qty 2 x 12mm x 100 tru bolt – Qty 2 x 10mm x 100 screw bolt
Brick/block work	Qty 2 x 10mm screw bolt anchors. (Must be confirmed by Engineer. Some applications may require chemical type fixing, especially if used for suspended or fall arrest ladders)

View install animation

Notes

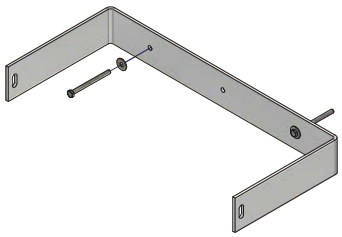
1. Maximum fixing bracket spacing must not exceed 3000mm suitable for both caged and fall arrest system ladders.
2. Where bracket spacing is required to be greater than 3000mm, the RL413 ladder stile strengthening kit is required.
3. Brackets attached to brick or blockwork must be certified for reaction load suitability by structural engineer.
4. Suspended caged ladders require a minimum of 2 x RL421 fixing brackets per 6.0m ladder. A suspended ladder with fall arrest system requires a minimum 4 x RL421 fixing brackets per 6.0m ladder or 2.4m spacing max.

Ladder fixing bracket details



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

280mm fixing bracket installation



RL421 - LADDER FIXING DETAILS

FIX BRACKET TO SUPPORT STRUCTURE
WITH FIXINGS SPECIFIED BELOW

RL421.280 - STANDARD FIXING BRACKET

LINE UP THE SLOT WITH THE FIRST CHANNEL OF THE LADDER AND THEN USE KB005 T-BOLT TO SECURE INTO LADDER.
NOTE: EDGE OF BRACKET SHOULD BE IN THE MIDDLE BETWEEN BOTH CHANNELS

FIXING REQUIREMENTS

Steel Purlin
- Qty 2 x M10 S/S Bolts OR
- Qty 2 x M8 Toggle Bolts OR
- Qty 3 x 14G Tek Screws (1.9mm min purlin thickness)

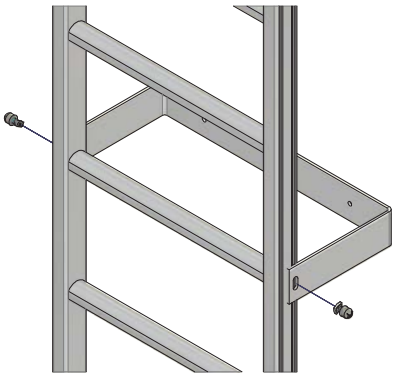
Steel Structure
- As above

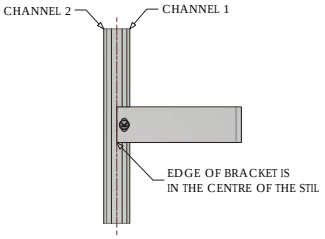
Concrete (Min 25MPa)
- Qty 2 x 10mm x 100 Tru-bolt OR
- Qty 2 x 8mm x 100 Screw Bolt

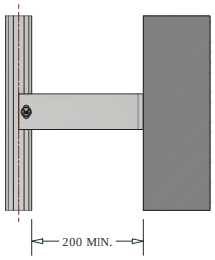
Brick (Must be structurally sound)
- Qty 2 x 10 x 100 Screw Bolt *

Composite Panel
- Qty 2 x 10mm Through Bolt with Spreader Plate on rear OR
- Qty 2 x M8 Toggle Bolts
- (Also seek advice from panel manufacturer)

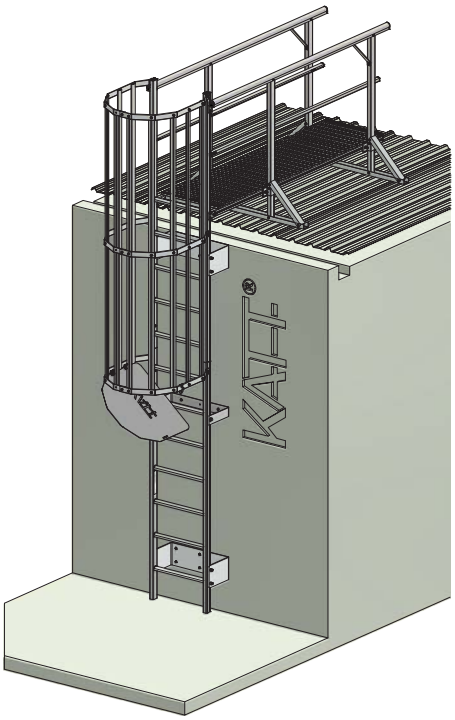
*Must be confirmed by Engineer. Some applications may require chemical type fixing, especially if used for suspended or fall arrest ladders.

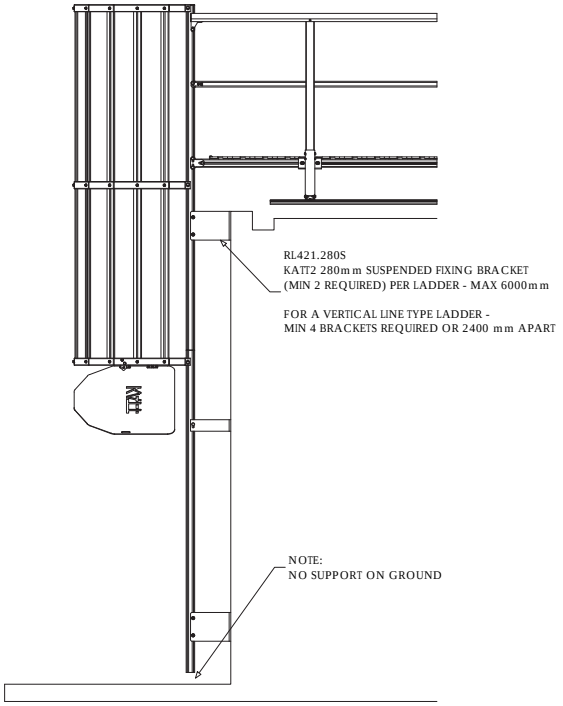






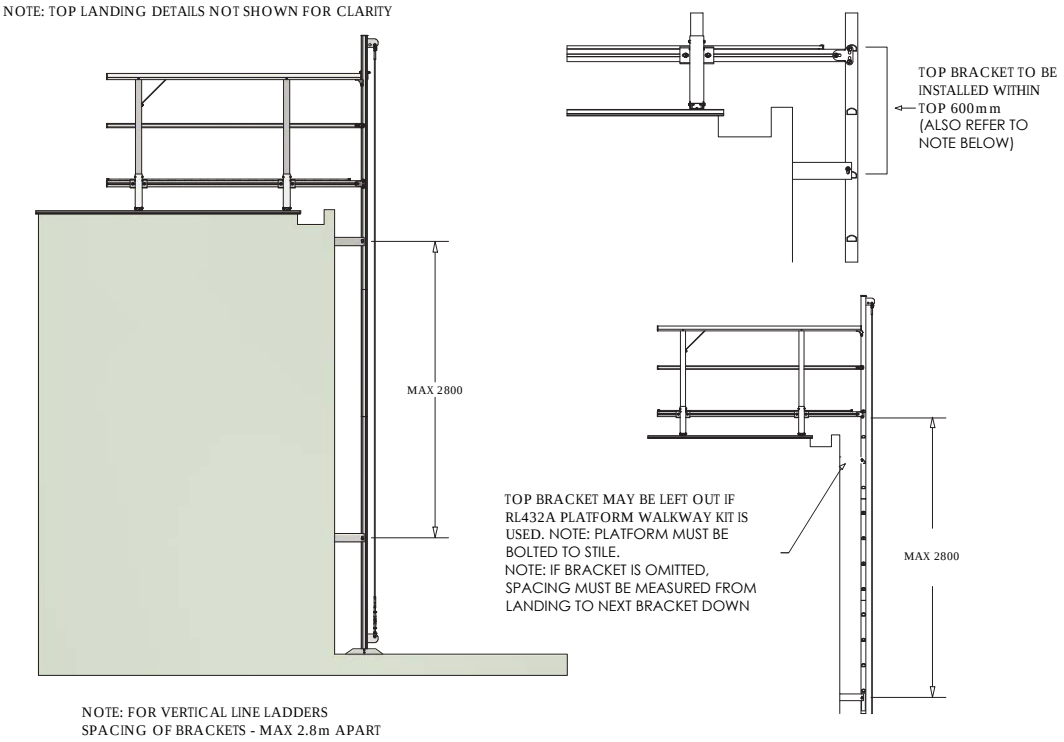
Suspended ladder details



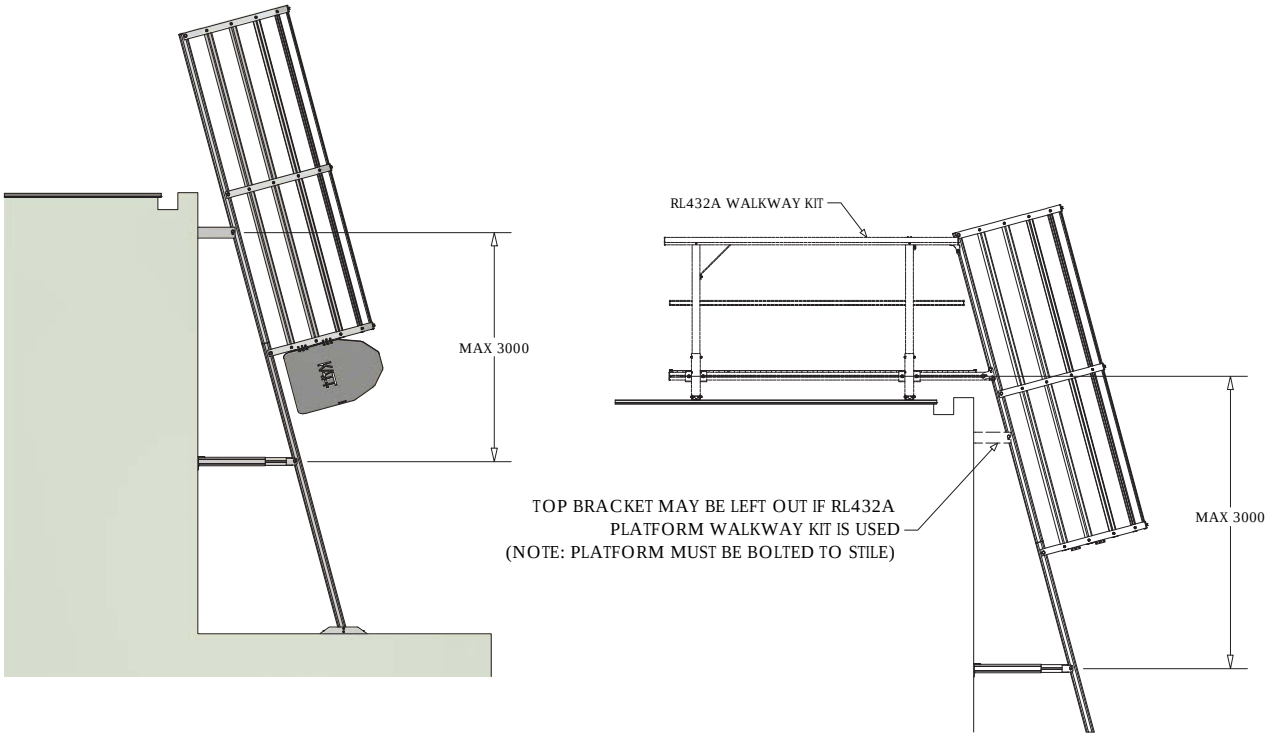


Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Fixing bracket positioning



Fixing bracket spacing



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

STILE STRENGTHENER ASSEMBLY

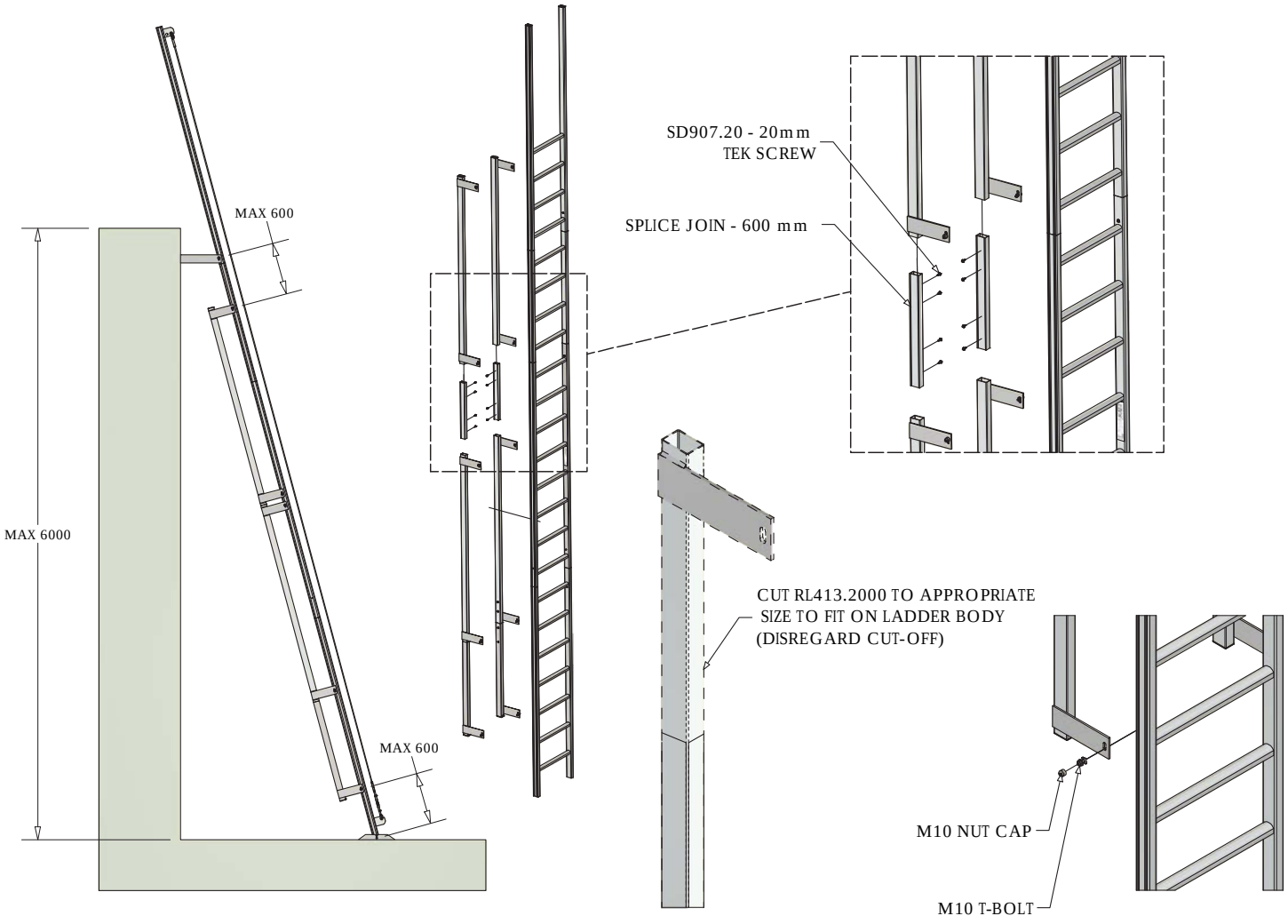
The ladder stile strengthening kit is designed for ladders that are not able to achieve a maximum of 3000mm spacing between fixing brackets such as glass façades or other non-load bearing surfaces. The stile strengthening kit can be joined together where required for higher ladders up to 6.0m.

Technical details

1. Maximum length of stile strengthener - 6.0m (3 x 2.0m sections joined using splice system with 4 x Tek Screws per join).

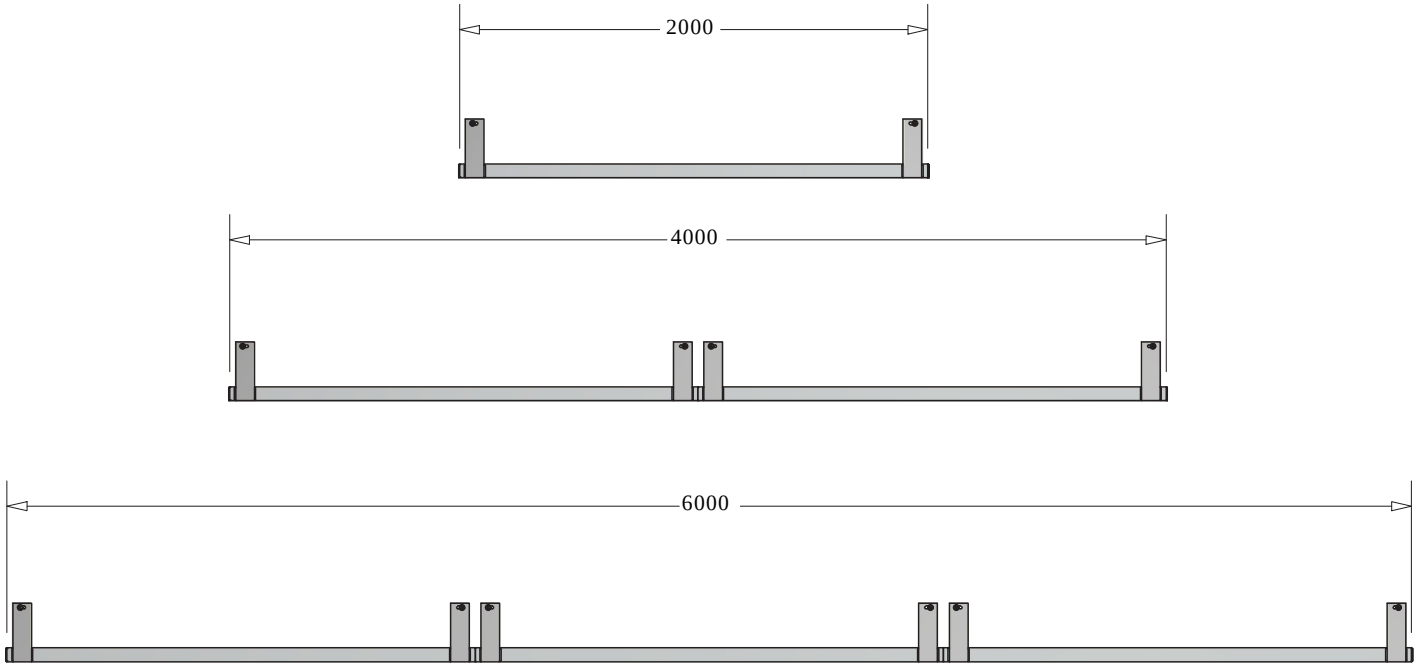
Installation procedure

View install animation



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Stile strengthener fixing details



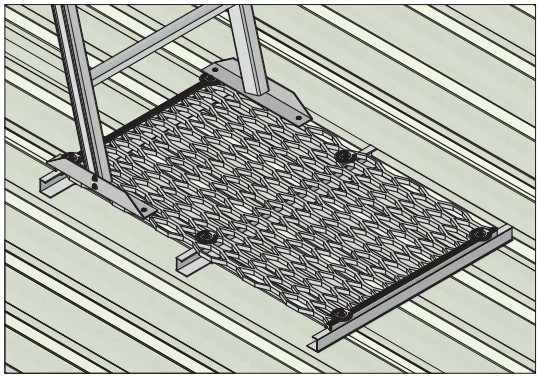
RL413.4000 (2000mm, 4000mm AND 6000mm STILE STRENGTHENERS WHICH CAN BE CUT TO SIZE TO SUIT APPLICATION)

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

BASE SUPPORT CONFIGURATIONS

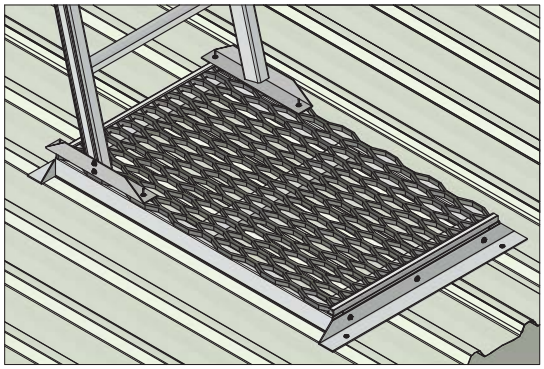
RL431W.1000 1m walkway landing kit

- This is a simple walkway landing kit which enables the ladder to rest on the walkway and remove the point load on the roof deck.
- Used for ladders less than 3.5m in height.
- The base of any ladder must have a landing min 900mm from the front of the ladder.



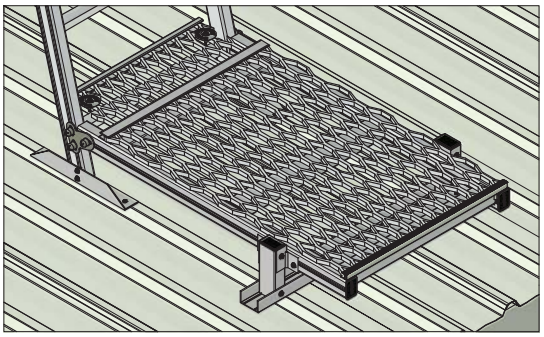
RL431S.1000 1m support landing kit

- This support landing kit is used for ladder over 3.5m in height.
- These ladders will be heavy and require additional support when on a roof deck



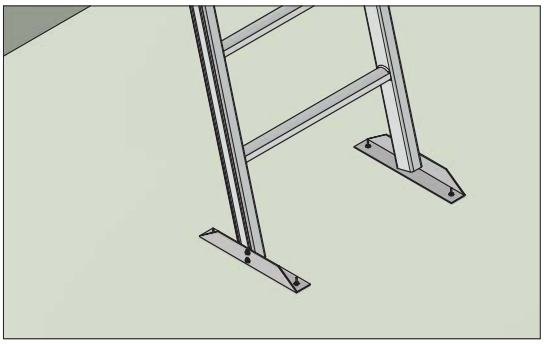
RL431A.1000 Adjustable landing kit

- This landing kit is required if lower surface is not level (greater than 7°) and can also be use to even up the rung spacing.



RL419S ladder base support angle set

- For concrete mount, fix the angles into the concrete. The fixings can be 6mm or 8mm wedge anchors or similar (do not use Nylon 'knock-in' fixings). The base angles must not impede the foot area of the ladder.



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

BASE SUPPORT ASSEMBLY

The ladder base support assemblies are designed to support the ladder system by spreading the load over a greater area when attaching to a roof deck or providing a suitable attachment to concrete. They also assist in ensuring equal rung spacing when using the adjustable platform at the base of the ladder.

Technical details

1. Caged ladder point load on landing: 400kg/3.0m of ladder length (includes weight of ladder)
2. Fall arrest ladder: Base support structure to support 12kN dynamic load (Includes weight of ladder)

Structure type	Fastener type
Metal roof deck min. 0.42mm BMT	– Qty 4 - 6 x 6mm Bulb type rivets with EPDM seal between batten and roof
Concrete panel 25mPa min	– Qty 4 x 8mm Wedge type anchors (2 per stile)
Structural steel	– Qty 4 x M10 stainless steel bolt set (2 per stile)

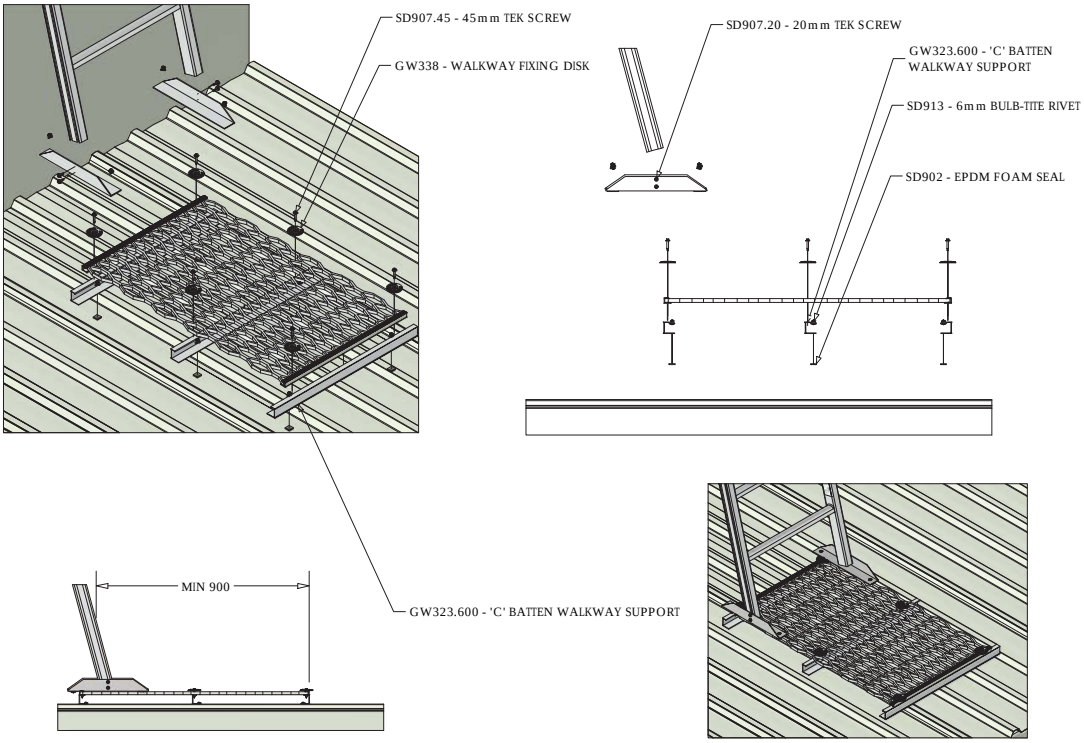
View install animation

Notes

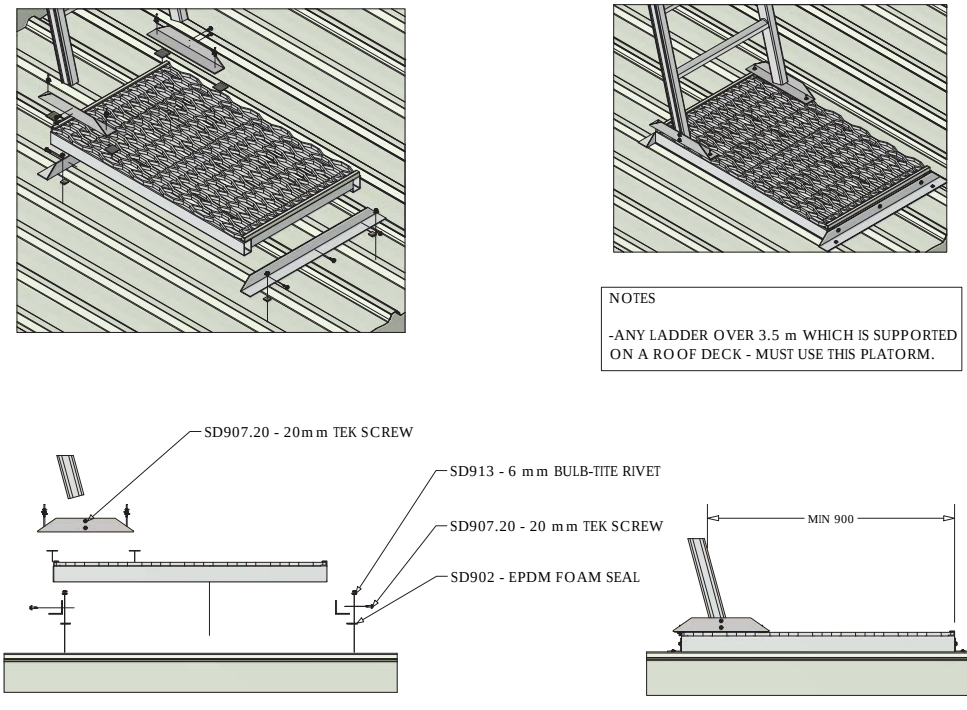
1. As per AS1657: 2018 ladder rung spacing must be equal which may require installation of the RL431A.1000 Adjustable
2. Height landing system positioned at either the base or head of the ladder. This facilitates easy alignment of top rung with exit platform.
3. A ladder positioned on a metal roof deck fitted with fall arrest system must be supported correctly using the RL431 Support
4. Landing kit to spread the loads required. Base structure supporting the ladder must be designed to take 12kN spread over all fixing brackets and base support landing.
5. Any ladder above 3.5m must use the RL431S Support Landing Kit which is designed to spread the load on the roof deck.
6. Caution must be taken when positioning the ladder to ensure there are no surrounding fall hazards such as skylights or nearby roof edges etc.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RL431W.1000 Walkway landing kit installation details

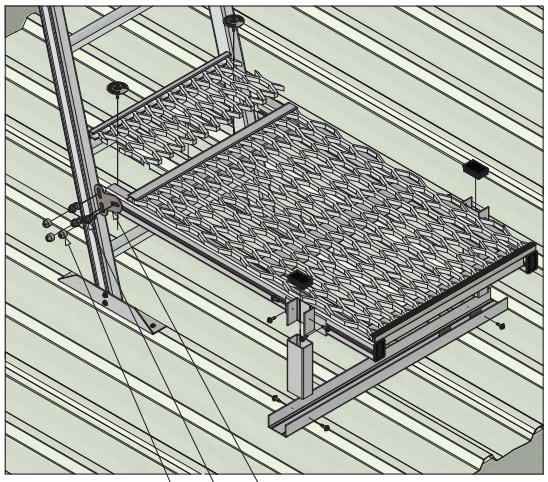


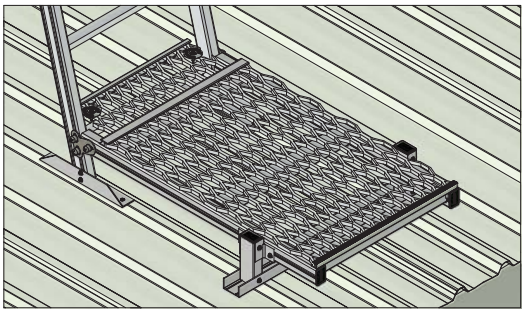
RL431S.1000 1.0m Ladder support landing kit installation details

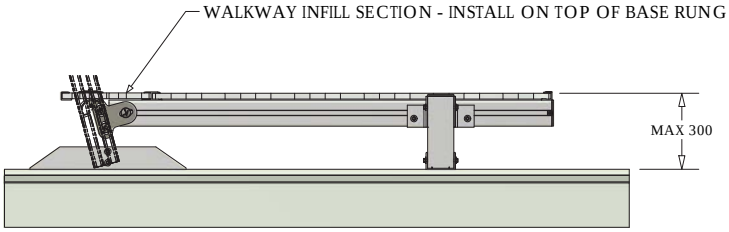


Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RL431A Adjustable landing kit installation details







IMPORTANT (AUSTRALIAN STDS REQUIREMENTS)

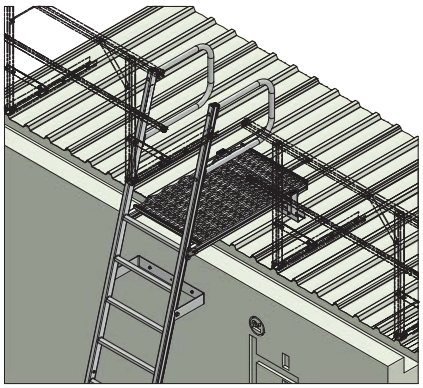
-LOWER LANDING MUST BE POSITIONED ON TOP OF LAST RUNG (DISTANCE TO 1ST RUNG 270-300mm)
-THE MAXIMUM HEIGHT FROM THE END OF LANDING TO ROOF DECK IS 300mm (OR UP TO 450 mm WITH AN INTERMEDIATE STEP)
-PLATFORM MUST BE LEVEL (WITHIN 7 DEG) IN ALL DIRECTIONS

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER HEAD ACCESS KIT RANGE

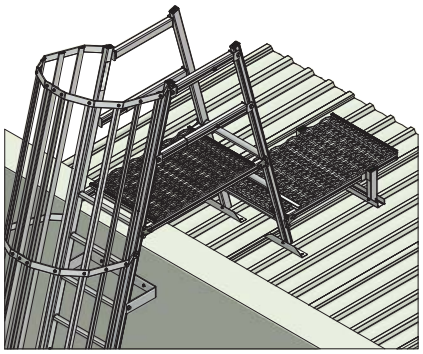
One meter landing with grabrails

- Requires 2m guardrails each side
- RL431A.1000 adjustable landing kit
- RL415A/V grabrail set (angled or vertical)



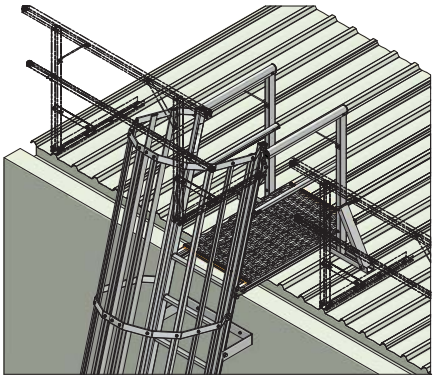
Parapet application

- RL435 parapet platform
- RL414 Adjustable guardrail set
- RL431A.100 adjustable landing to roof



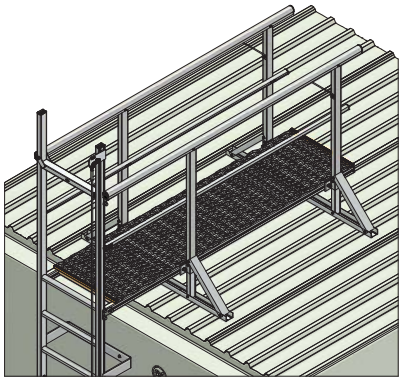
One meter landing with guardrails

- RL432A.1000 1.0m adjustable ladder head access kit
- Connection brackets



2400mm/3000mm landing kit

- RL432A.2400/3000 - 2400/3000mm adjustable ladder head access kit
- Connection brackets



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER HEAD ACCESS KIT ASSEMBLY

The ladder head access kit is designed to provide a safe means of access and egress at the top of the ladder. There are several options of ladder type that can be connected to the ladder head kit including angled or vertical ladders either fitted with cage or fall arrest line system. This landing is adjustable in height to assist with top rung alignment.

Technical details

1. Platform design load: 2.5 kPa.
2. Min. 1 roof batten and post support for 1.0m platform and 2 roof battens and post supports for 2.4m and 3.0m platform.

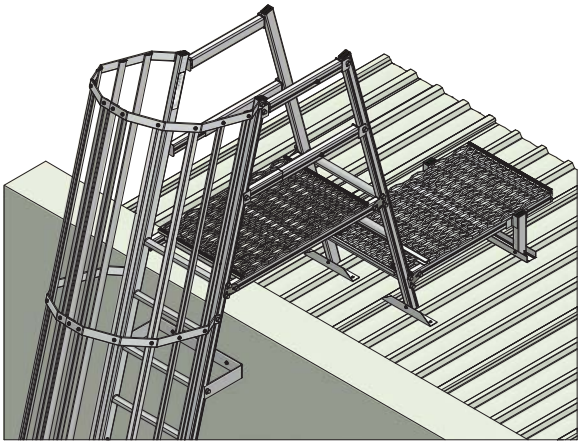
View install animation

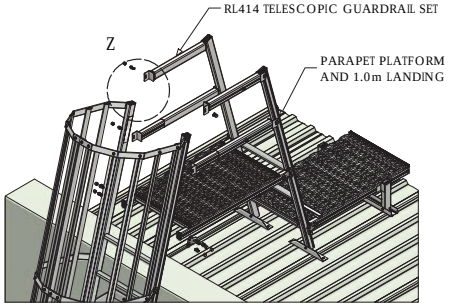
Notes

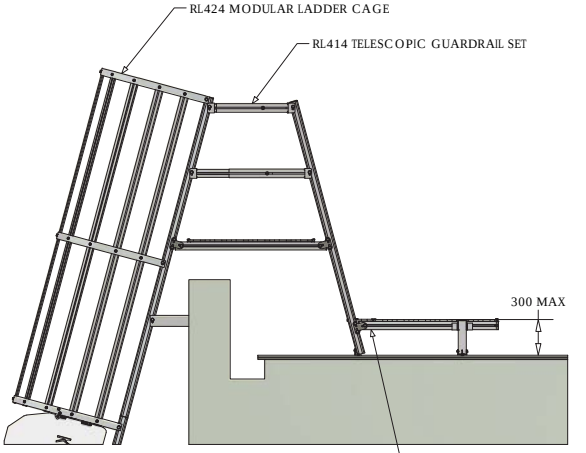
1. Platform must be set level with top rung of ladder.
2. Maximum platform height above roof deck is 300mm or up to 450mm if an intermediate step is provided.
3. Platform must be within 3 degrees off level in all directions.
4. Any penetration through roof deck must be sealed using EPDM provided.

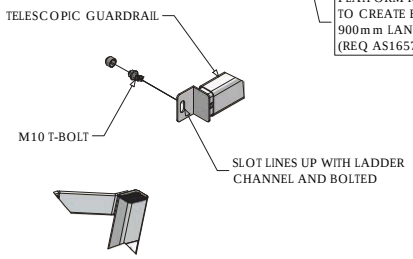
Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RL432A.1000 1.0m adjustable acces kit for parapets



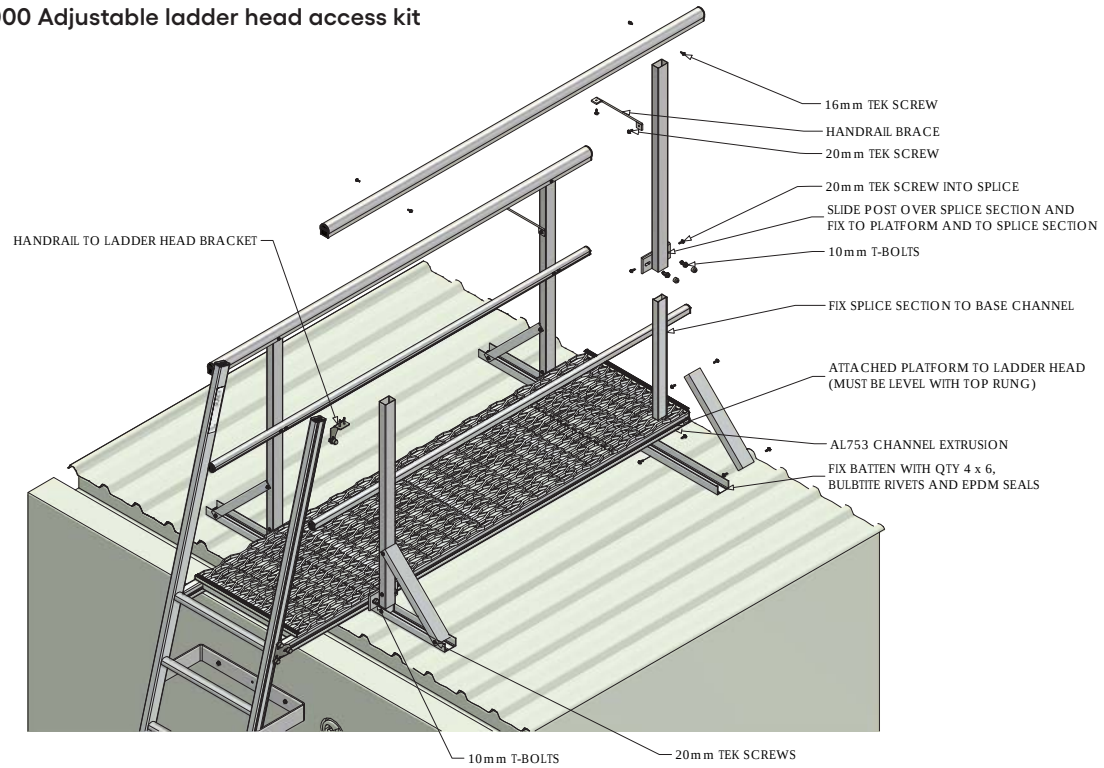






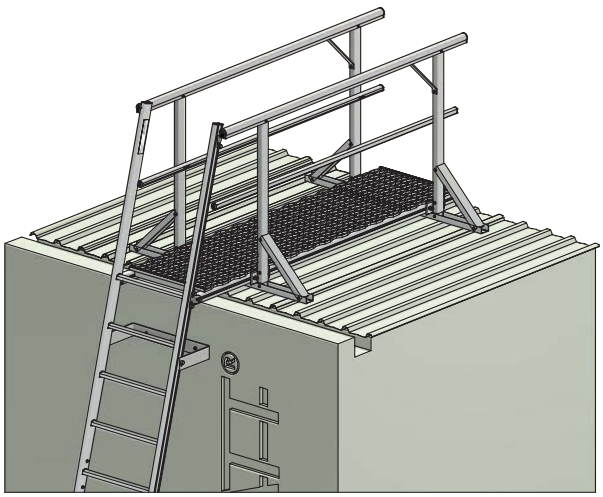
DETAIL Z (1 : 10)

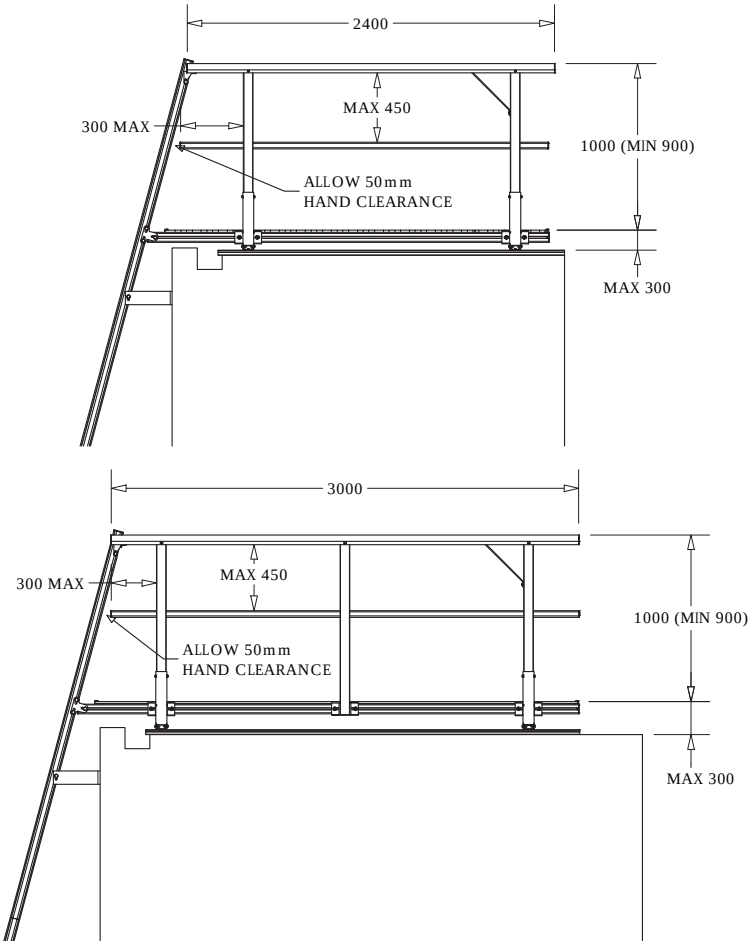
RL432A.2400/3000 Adjustable ladder head access kit



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RL432A.2400/3000 Adjustable ladder head access kit





Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER SPLICE ASSEMBLY

The splice join is the primary connection system between consecutive ladder bodies. It is placed at an equal distance into both adjoining sections and then fixed using Tek Screws

Technical details

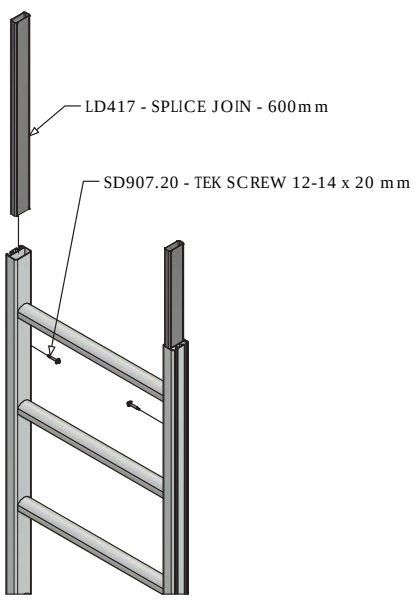
1. 600mm long aluminium splice with min 300 lap on each side of stiles.
2. QTY 4 x 20mm screws required for securing each stile splice in ladder.

View install animation

Notes

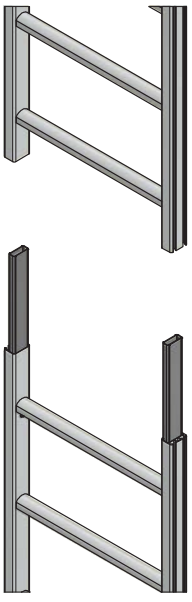
1. Important splice join has a minimum insert length into the adjoining section of no less than 250mm.
2. To assist alignment of splice join, it's important to fix off with 1 x Tek Screw only until the secondary ladder section has been connected. The remaining screws can then be inserted.

Splice joining details



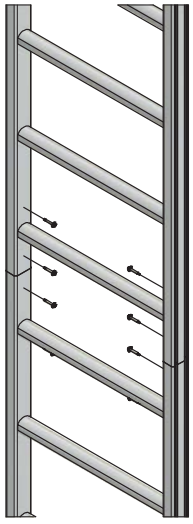
STEP 1:

INSERT SPLICE 300 mm INTO STILES OF LADDER. FIX WITH 1-TEK SCREW.



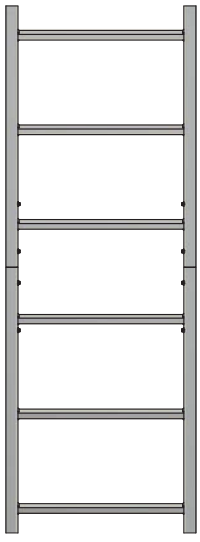
STEP 2:

SLIDE LADDER BODY ONTO SPLICE JOINTS.



STEP 3:

FIX REMAINING TEK SCREWS INTO LADDER BODY SECTIONS AS SHOWN.



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER CAGE ASSEMBLY

The ladder cage is designed to provide a fall protection system for angled or vertical ladders. The modular design allows on site build to suite exact ladder requirements. The cage is assembled using a cup bolt with T-slot for easy assembly

Technical details

1. RL424.1000 Cage weight 1000mm – 11 kg
2. RL424.2000 Cage weight 2000mm – 20 kg
3. RL424.3000 Cage weight 3000mm – 27 kg
4. RL424.4000 Cage weight 4000mm – 36 kg
5. RL424.5000 Cage weight 4000mm – 43 kg

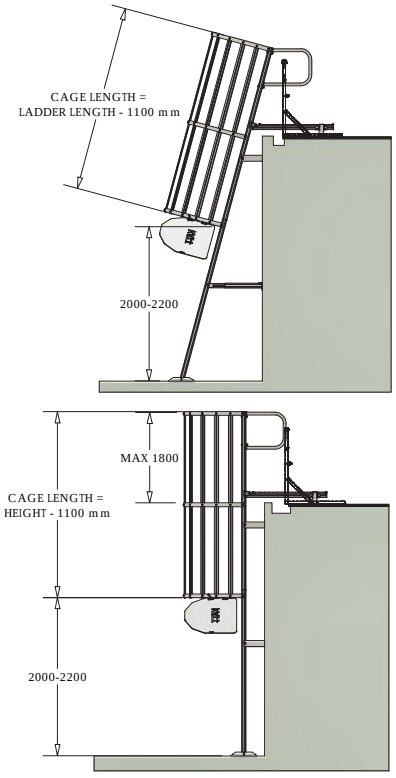
View install animation

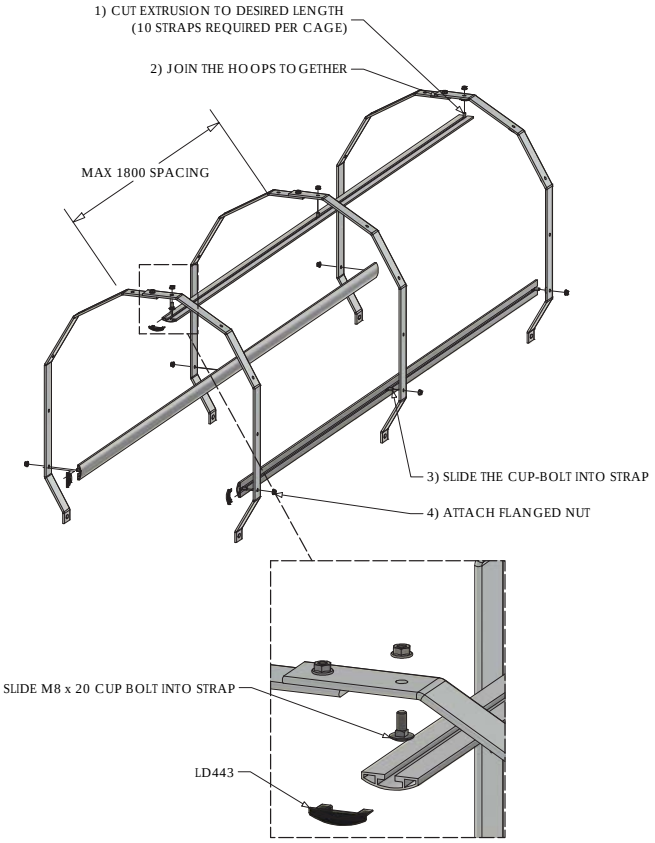
Notes

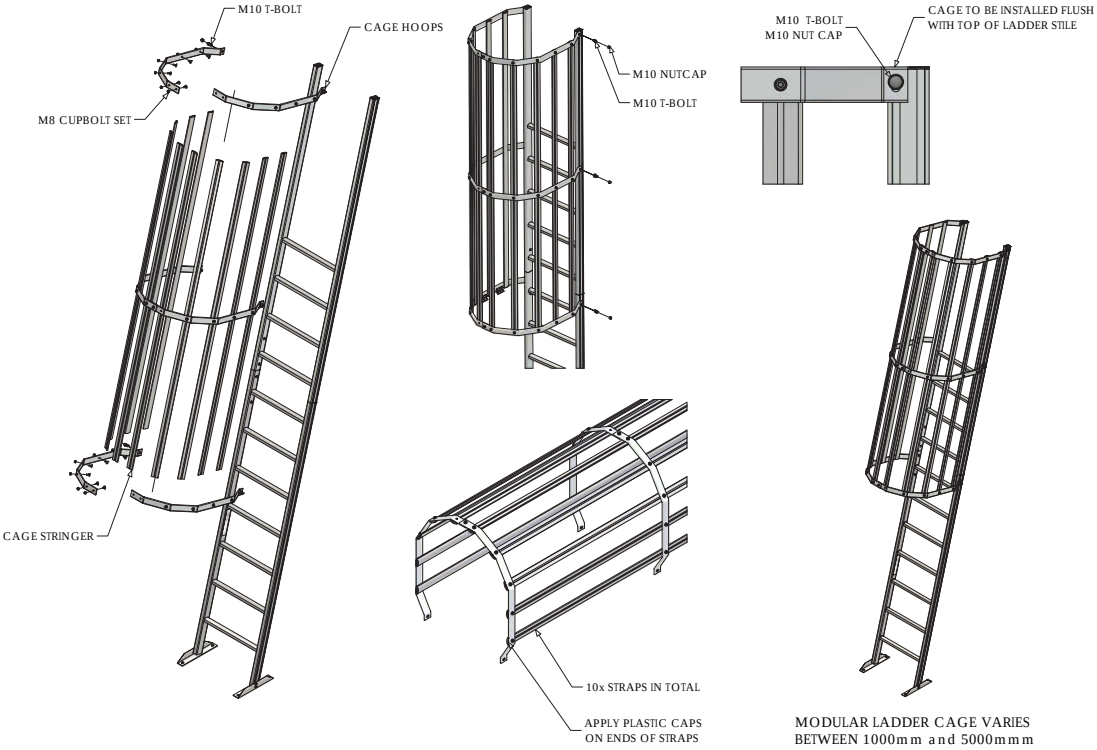
1. For cages above 3.0m in length, use a combination of 2 cages to achieve required length as this is easier to install.
2. Vertical caged ladders are only to be considered if an angled ladder is not practicable.
3. The clearance height under cage must be in between 2.0m – 2.2m.
4. In some instances, an additional side extension protection cage may be required if there is possibility of the user being exposed to an extended fall. See RL434E ladder cage side extension kit.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Cage assembly

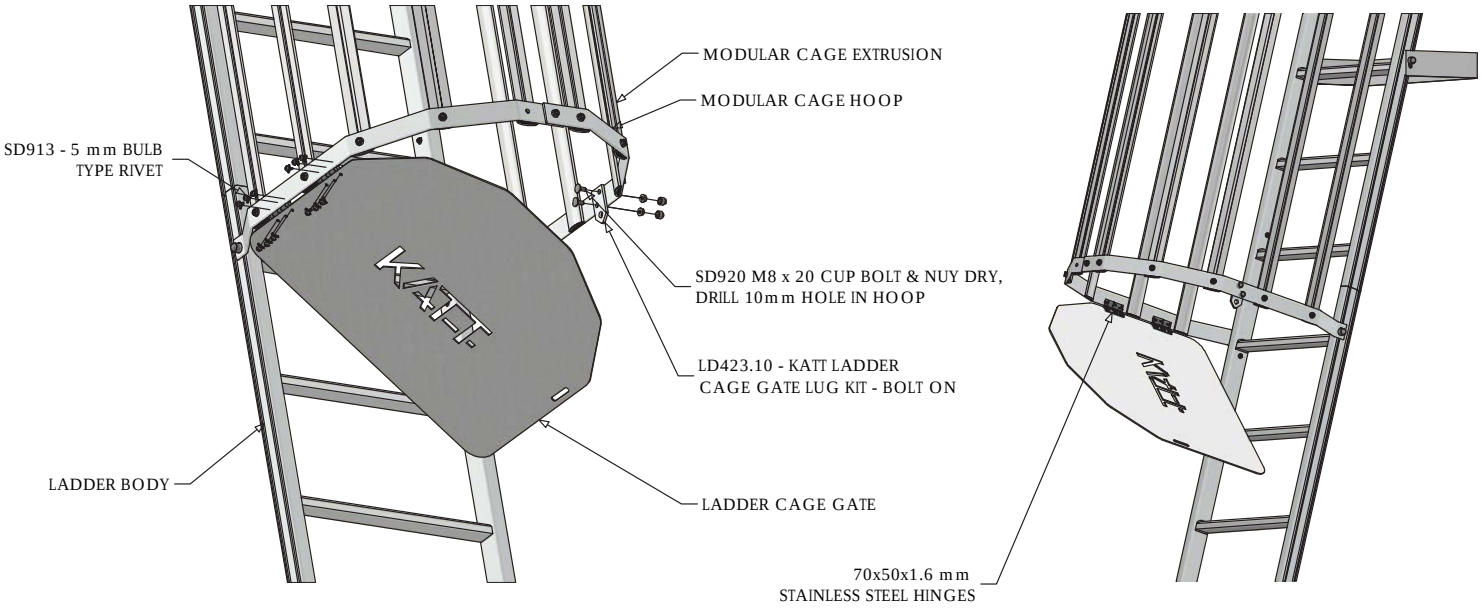






Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Lockable cage gate assembly



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

INTERMEDIATE LANDING PLATFORM ASSEMBLY

The Intermediate Landing Platform is designed to provide an intermediate landing platform for multistage ladder systems. The system is designed and built modular for easier and safer installation on site. The platform can be attached to concrete, steel cladding with purlins or any other structural support system capable of supporting the required loads.

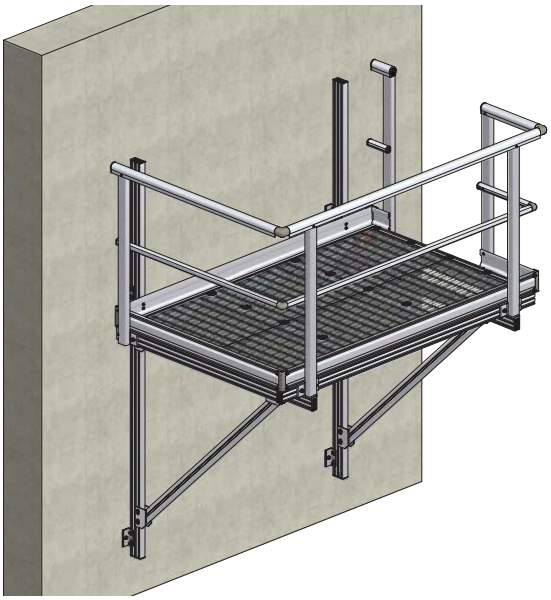
Technical details

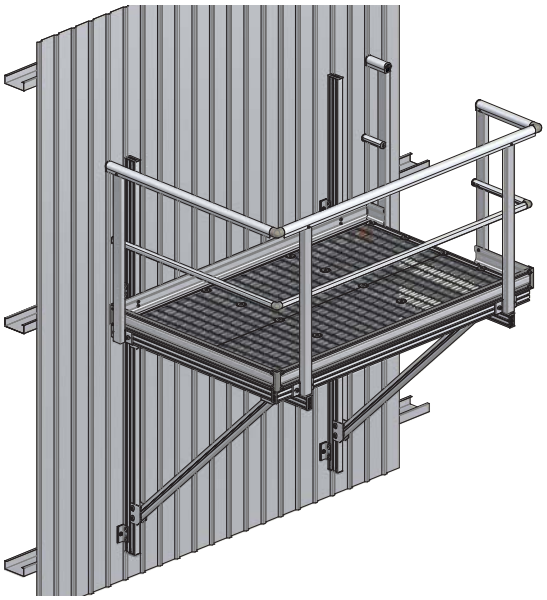
1. Platform design load: 2.5 kPa.
2. Min 200mm edge distance required for concrete fixing.
3. Platform should not exceed 300mm from the nearest point of wall fixing.

Structure type	Fastener type
Metal cladding with steel purlins min 150 x 1.5mm	– 8 x M8 concealed mount purlin fixing into purlin
Concrete slab min 25mPa	– Qty 4 per bracket – 8mm x 75 screwbolt – 10mm x 75 Trubolt – M10 stud chemical fixed (100mm embedment)
Structural steel	– Qty 4 per bracket x M10 stainless steel bolt set

Notes

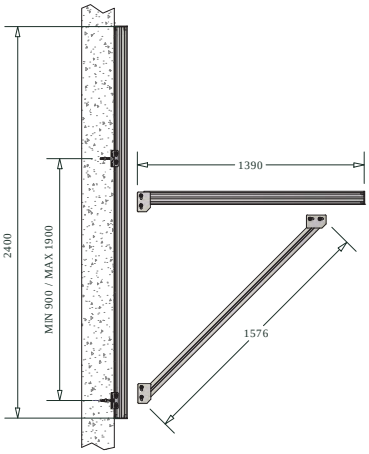
1. If attaching platform to concrete panels, ensure minimum of 200mm edge distance to fixing allowed.
2. When attaching to metal clad / purlin wall structure, always position as close to main structural portal frame as possible for additional rigidity.
3. Maximum height between landings is 6000mm.
4. If secondary ladder is positioned closer than 500mm to the platform edge, a side mount cage extension RL434E is required for additional user safety

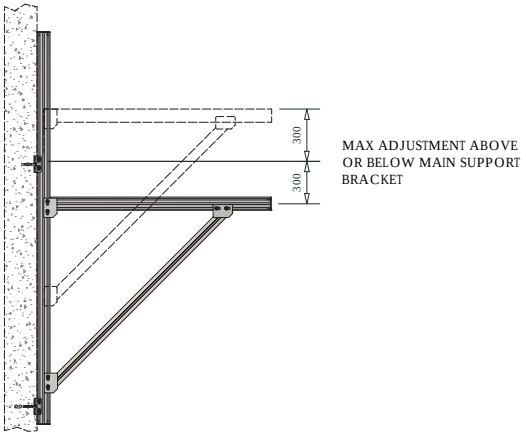




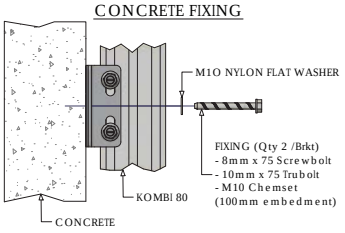
Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

RL429M Intermediate landing platform assembly

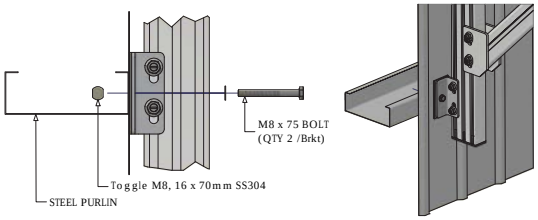


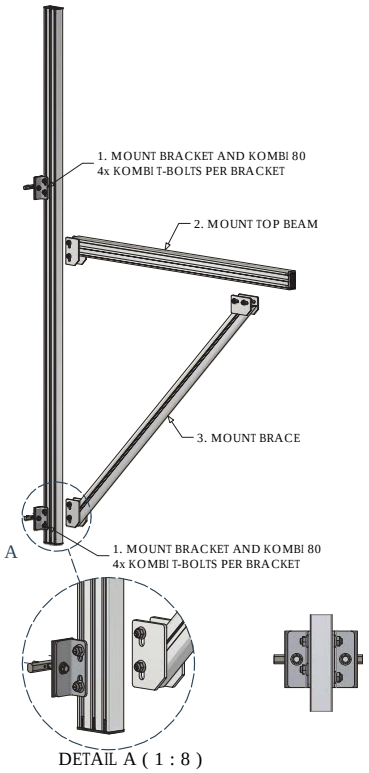


CONCRETE FIXING



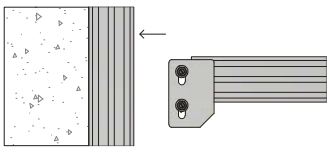
PURLIN FIXING





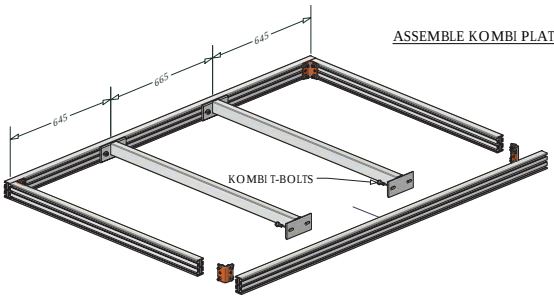
DETAIL A (1 : 8)

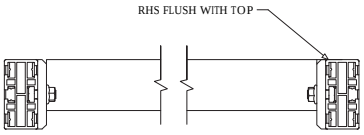
MOUNT WALL CANTILEVER BRACKETS



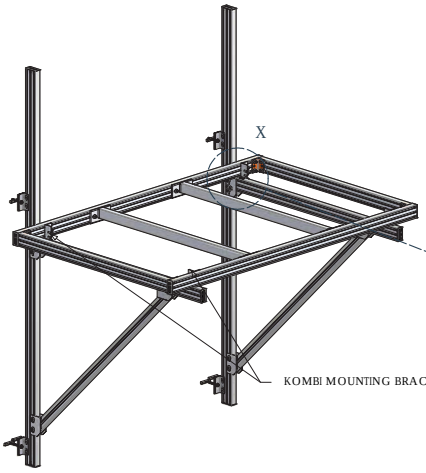
Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

ASSEMBLE KOMBI PLATFORM FRAME

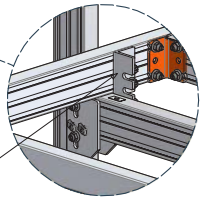




ATTACH FRAME TO CANTILEVER BRACKETS

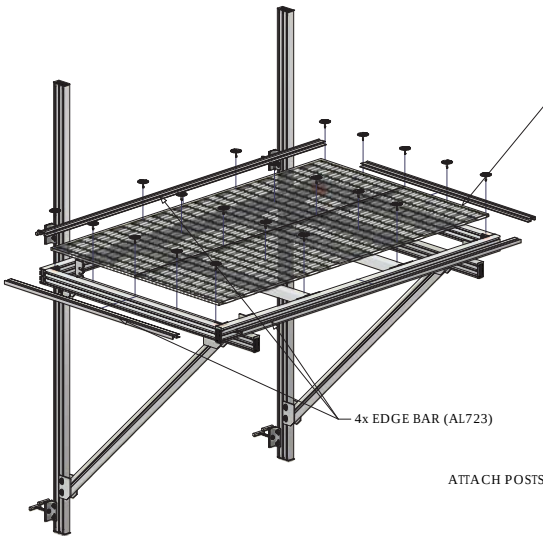


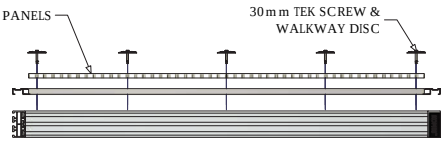
MOUNT PLATFORM TO TOP
OF CANTILEVER BRACKETS.

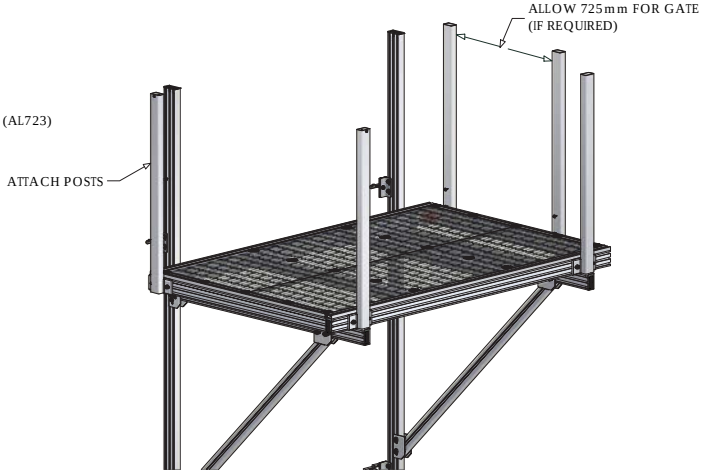


DETAIL X (1:8)

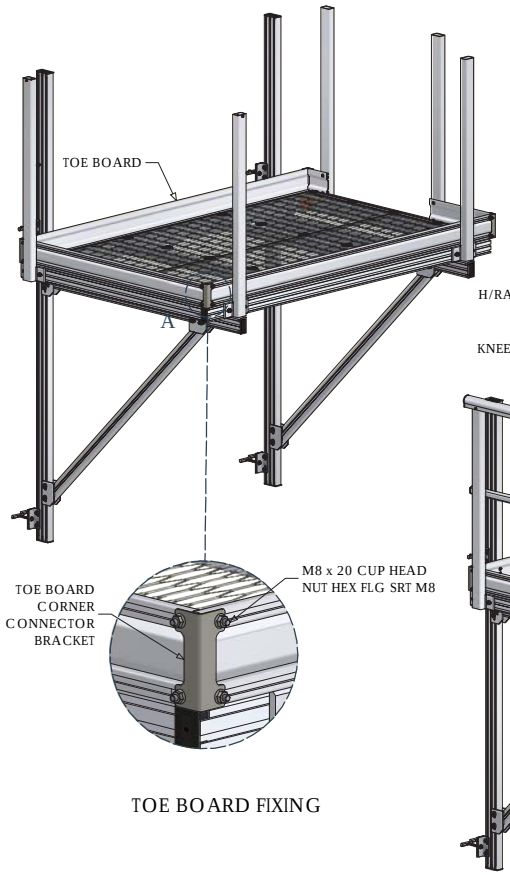
ATTACH WALKWAY AND POSTS







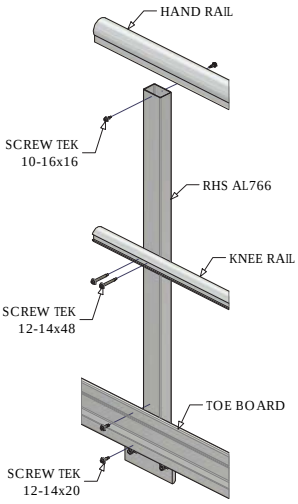
Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.



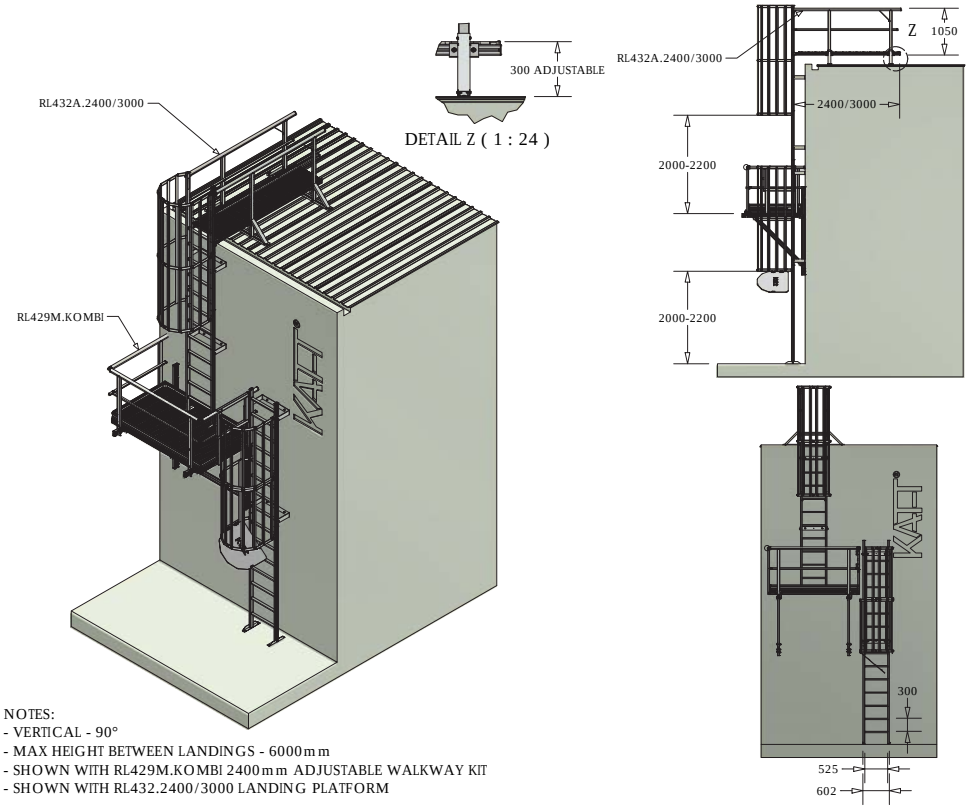
TOE BOARD FIXING

ATTACH GUARD RAILS

HAND RAIL & KNEE RAIL
FIXING DETAIL



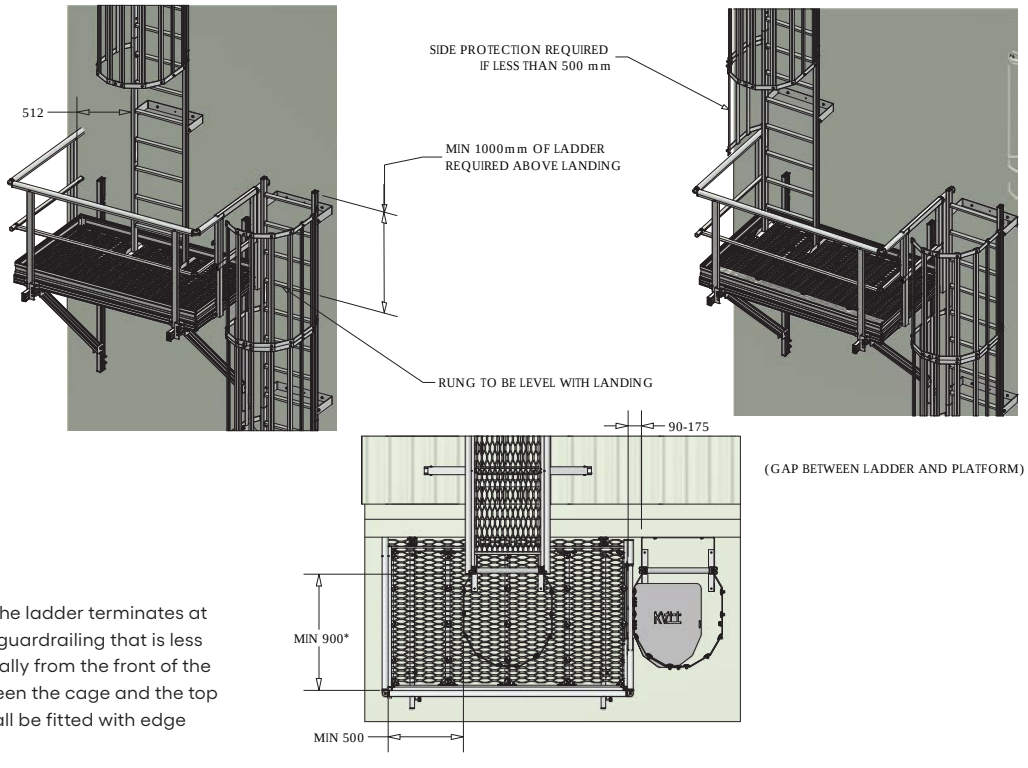
Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.



NOTES:
- VERTICAL - 90°
- MAX HEIGHT BETWEEN LANDINGS - 6000mm
- SHOWN WITH RL429M.KOMBI 2400mm ADJUSTABLE WALKWAY KIT
- SHOWN WITH RL432.2400/3000 LANDING PLATFORM

CENTERED ON PLATFORM - NO INFILL MESH REQUIRED

TOO CLOSE TO EDGE - INFILL MESH IS REQUIRED



***Note**

Where the bottom of the ladder terminates at a platform fitted with guardrailing that is less than 900 mm horizontally from the front of the ladder, the area between the cage and the top of the guardrailing shall be fitted with edge protection.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER HEAD LANDING PLATFORM ASSEMBLY

The RL429T ladder head landing platform is designed for use with an angled cage ladder attached parrallel to the wall structure to minimise footrprint below the ladder. The platform provides a safe egress system onto the roof when exiting the ladder. It designed to be adjustable in height to assist in alignment with the top rung.

Technical details

1. Platform design load: 2.5 kPa.
2. Min 200mm edge distance required for concrete fixings.

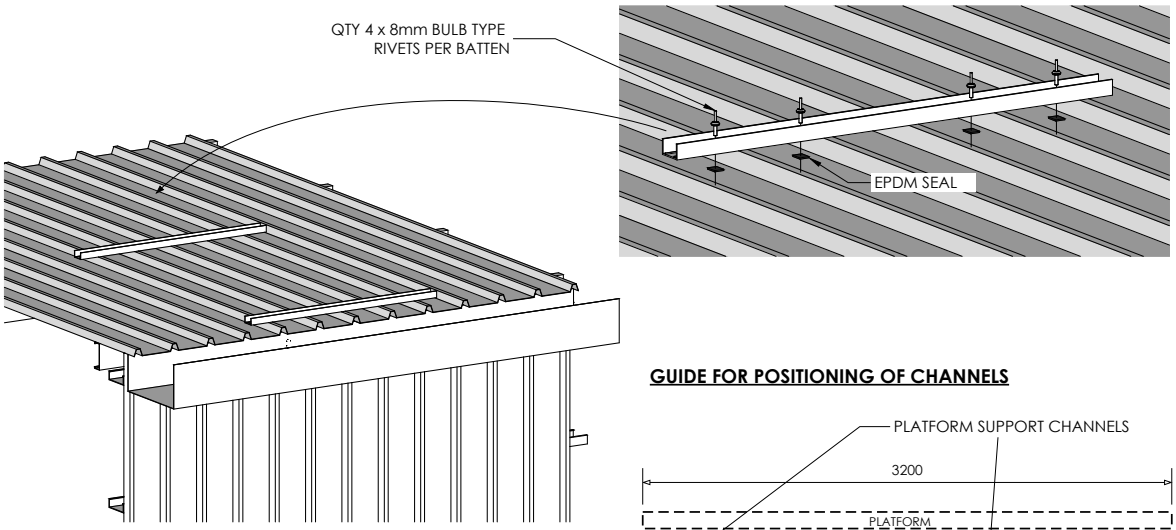
Structure type	Fastener type
Metal cladding with steel purlins min 150 x 1.5mm	– Qty 4 per bracket: 14G x 50mm tek screw
Concrete slab min 25mPa	– Qty 2 per bracket – 8mm x 75 screwbolt – 10mm x 75 Trubolt – M10 stud chemical fixed (100mm embedment)
Structural steel	– Qty 2 per bracket x M10 stainless steel bolt set

Notes

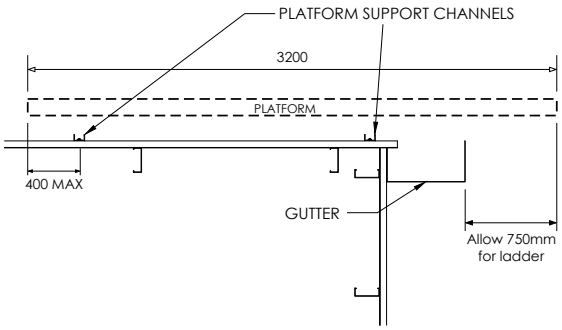
1. If attaching platform to concrete panels, ensure minimum of 200mm edge distance to fixing allowed
2. When attaching to metal clad / purlin wall structure, always position as close to main structural portal frame as possible for additional rigidity

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

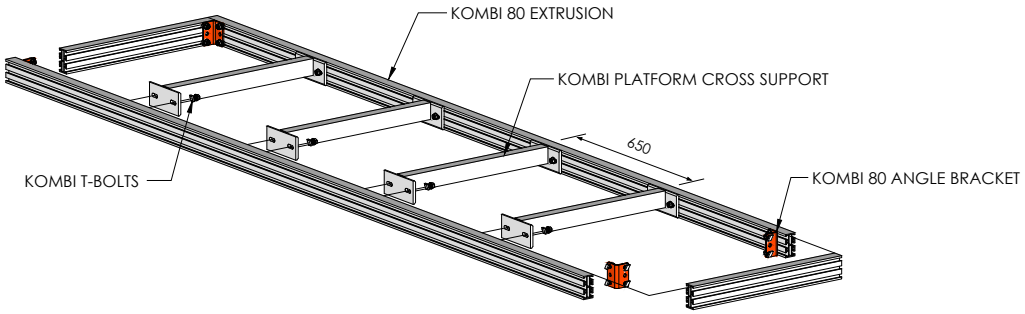
Step one - position and fix platform support channels to roof deck



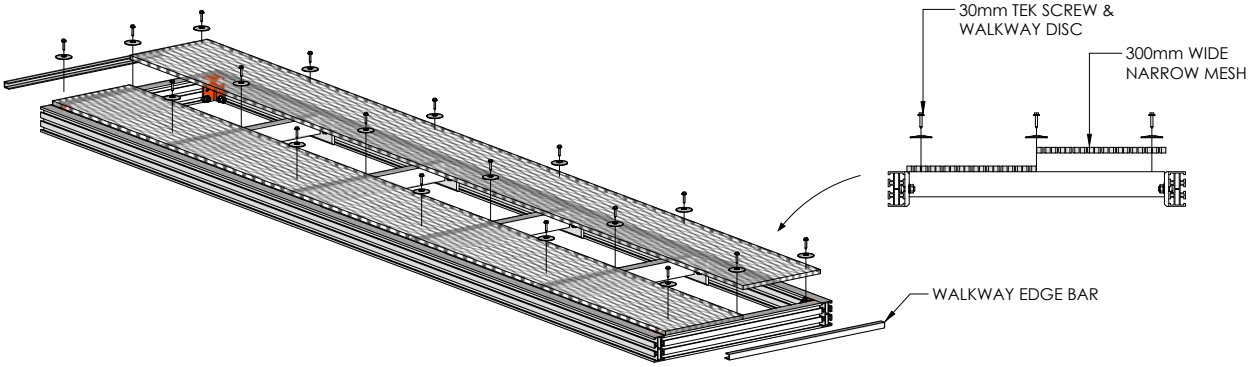
GUIDE FOR POSITIONING OF CHANNELS



Step two - assemble platform frame

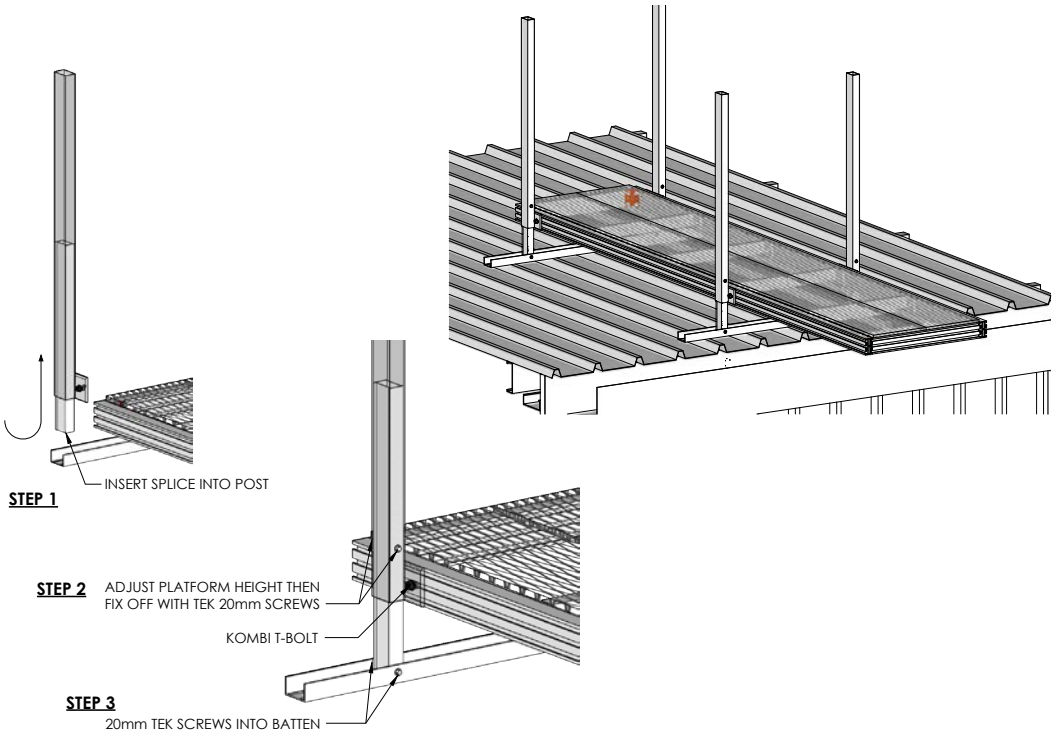


VIEW PLATFORM ASSEMBLY VIDEO

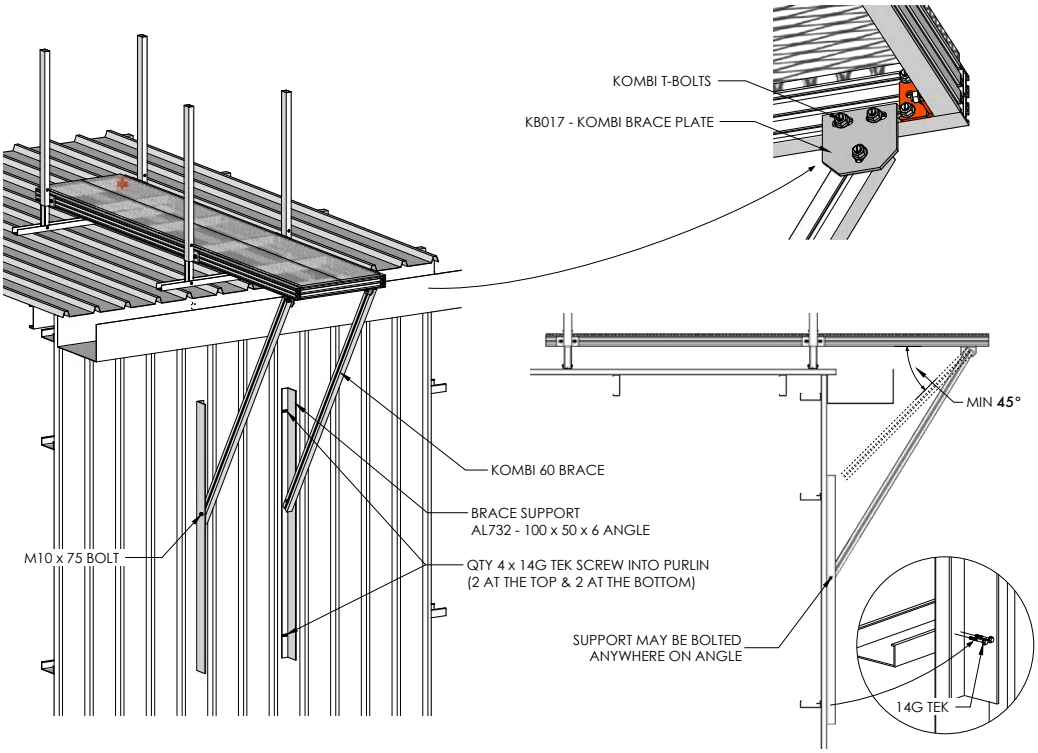


Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Step three - position and fix platform

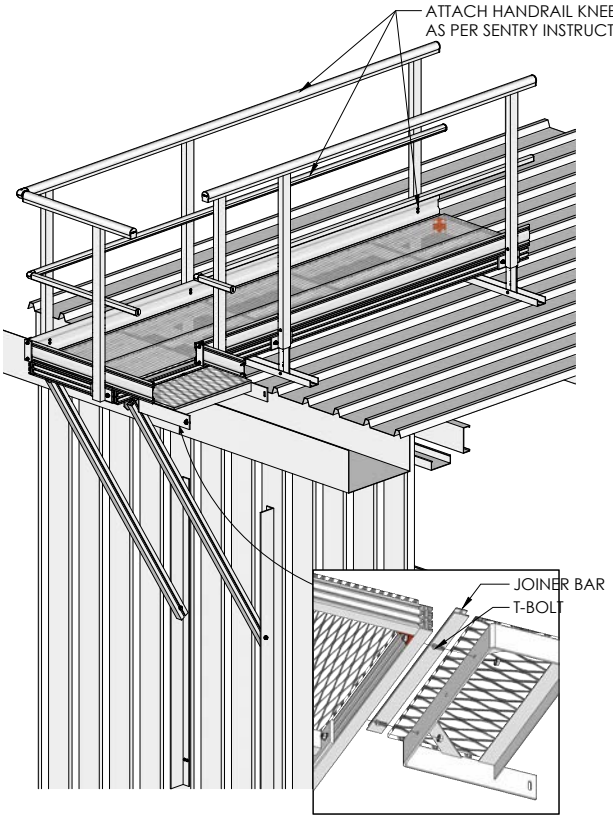


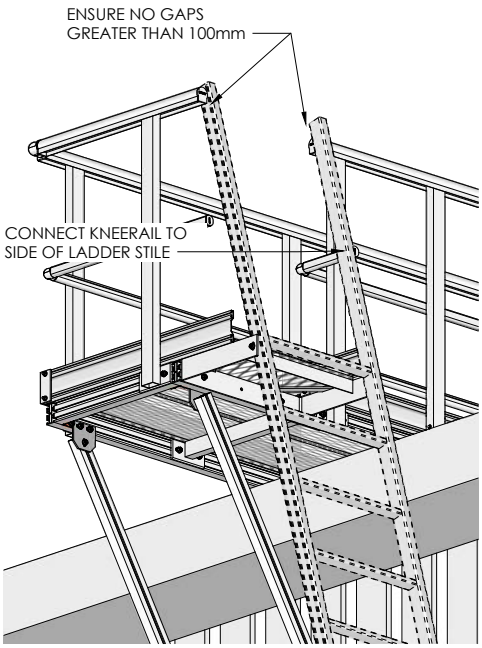
Step four- attach angle supports and brackets



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Step five - attach handrail, kneerail, toeboard and ladder bracket





Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

INTERMEDIATE REST PLATFORM ASSEMBLY

The RL430 fixed intermediate rest platform is designed to allow the operator to exit the ladder onto the platform whilst still connected to the ladder fall arrest system. The platform simply connects to the side of the ladder using the T-bolt fastener. The intermediate rest platform is required at 6.0m intervals or less based on the overall height of the ladder.

Technical details

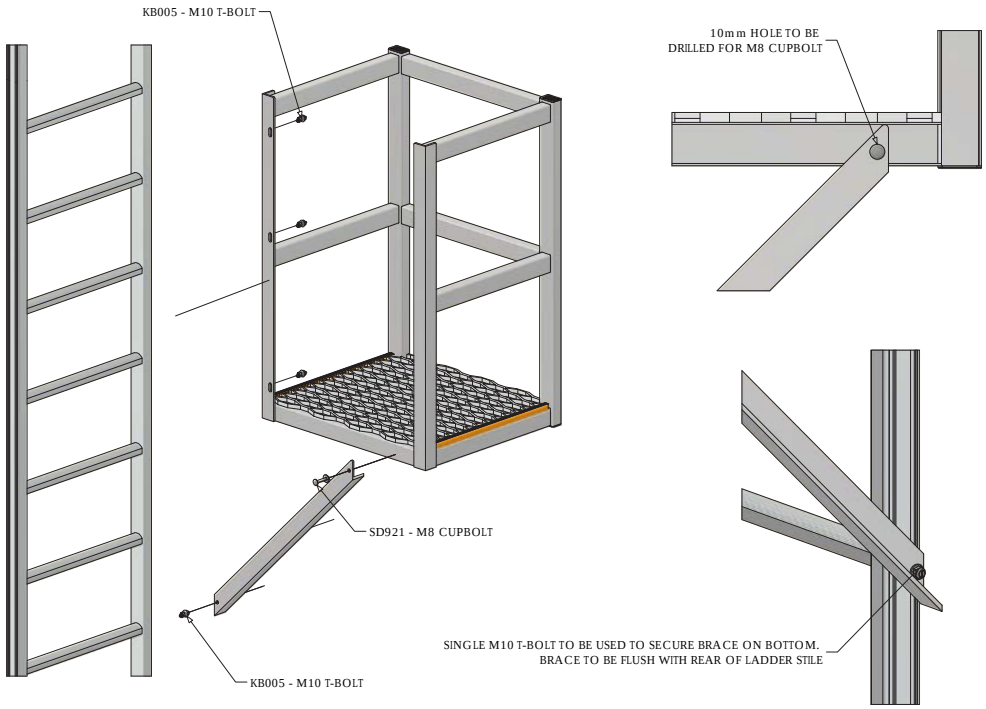
1. Platform rated to 150 kg.
2. Operator must remain attached to fall arrest system when using rest platform.

Structure type	Fastener type
Metal cladding with steel purlins min 0.42 BMT	– Qty 2 per bracket: M8 purlin mount structural fixing
Concrete slab min 25mPa	– Qty 2 per bracket – 8mm x 75 screwbolt – 10mm x 75 Trubolt – M10 stud chemical fixed (100mm embedment)
Structural steel	– Qty 2 per bracket x M10 stainless steel bolt set

Notes

1. If attaching platform to concrete panels, ensure minimum of 200mm edge distance to fixing allowed.
2. When attaching to metal clad / purlin wall structure, always position as close to main structural portal frame as possible for additional rigidity.

Intermediate rest platform installation details



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

VERTICAL LINE LADDER HEAD ASSEMBLY

The vertical line ladder head is designed to be used on vertical ladders and is a more effective fall protection system when compared with a ladder cage in a vertical situation. The static line connects at the ladder head and then secured near the base to hold the line steady in a fall arrest situation.

Technical details

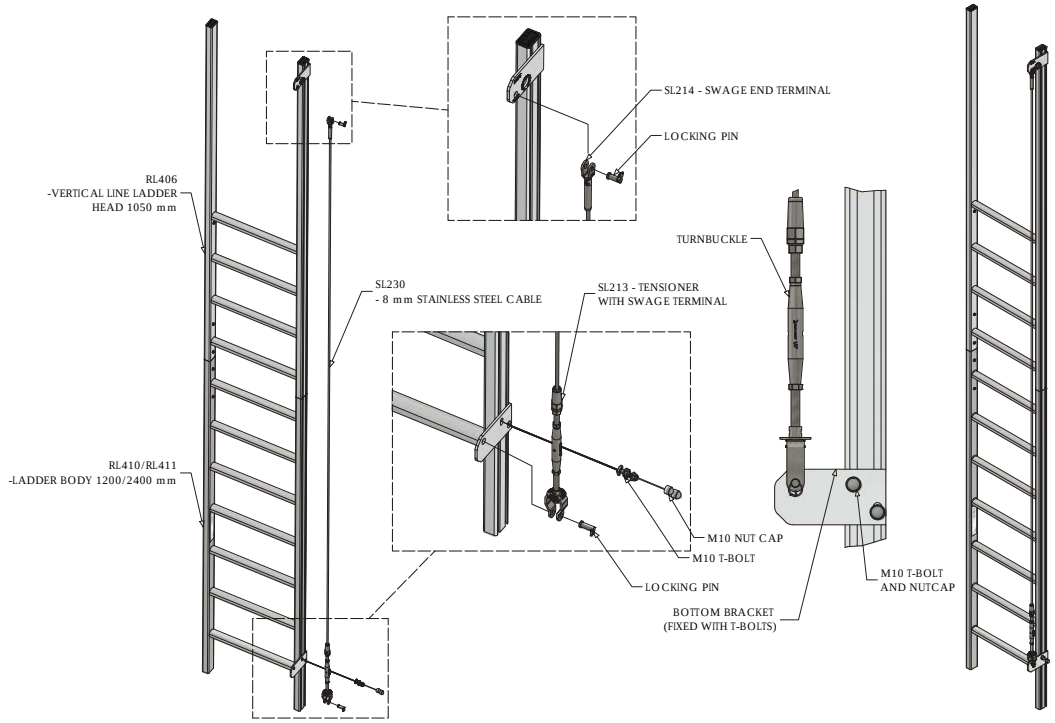
1. 1m, 2.4m and 3m platform must be fixed to ladder (RL432A range).
2. Handrail must be fixed to ladder stiles.
3. Cable tension to be 30 kg to 80 kg.

View install animation

Notes

1. Vertical ladders fitted with fall arrest systems require a base support capable of withstanding a 12kN dynamic load.
2. Spacing between fixing brackets must not exceed 2.8m.
3. A suspended ladder with a fall arrest system requires a minimum 4 x RL421.2805 fixing brackets per 6.0m ladder or 2.4m spacing max.
4. The base static line bracket should be positioned low enough to ensure easy mount and dismount of vertical line fall arrestor.

Vertical line ladder head installation details



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

TELESCOPIC GUARDRAIL SET ASSEMBLY

The RL414 telescopic guardrail set along with the RL435 parapet platform provides safe and effective access over parapets and allows simple adjustment of rails to cater for varying distances in parapet widths. The platform and rails are secured using the T-bolt fastener

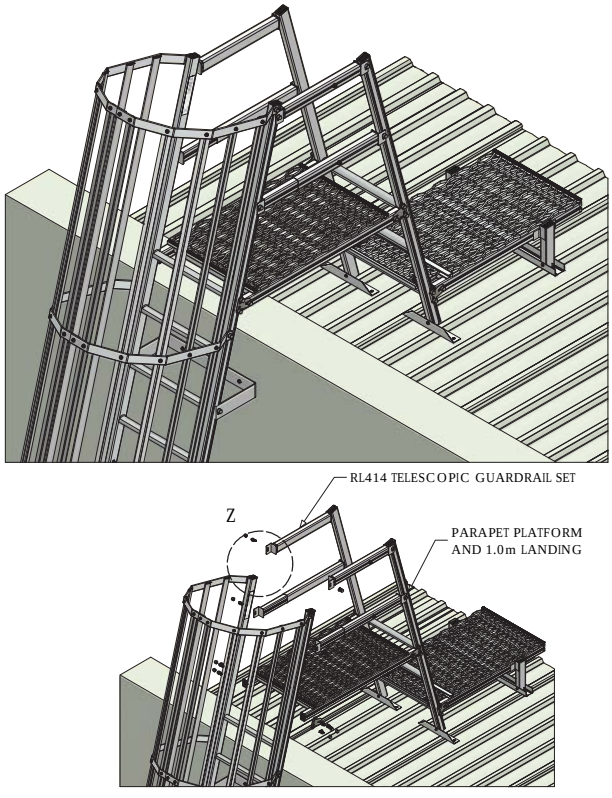
Technical details

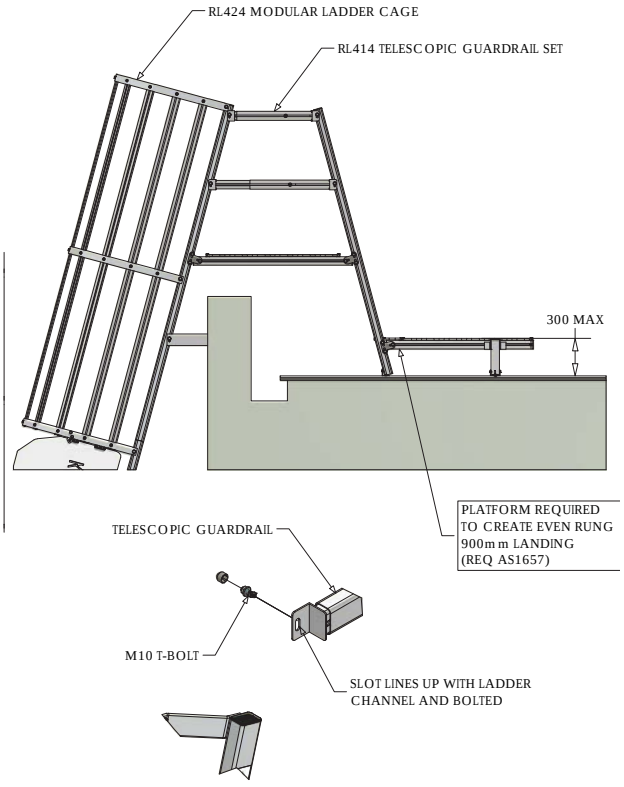
1. Platform load capacity : 2.5 kPa.

Notes

1. Parapet platform must be positioned level with top rung of both ladder up and down parapet.
2. An RL431A Adjustable Landing Kit will likely be required on the roof to ensure equal rung spacing on the ladder from the platform to the roof deck.
3. Handrail must be installed between 900mm and 1100mm above parapet platform.

Vertical line ladder head installation details





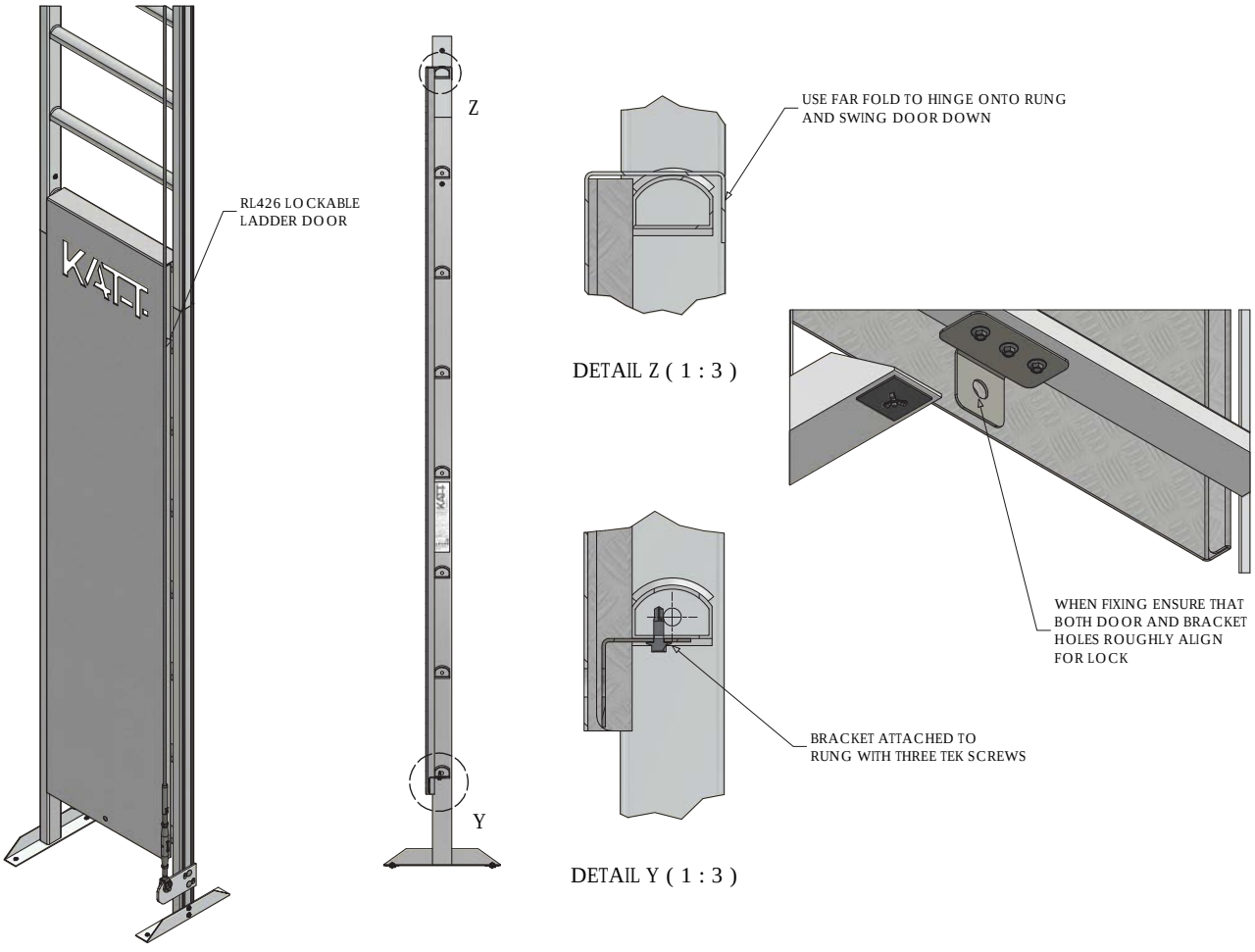
DETAIL Z (1 : 10)

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

LADDER DOOR ASSEMBLY

The RL426 ladder door is designed to provide controlled access to ladders that can be accessed by non authorised users. The ladder simply hooks over a rung and then gets locked off at the base using a lock provided by the building manager. The door is simply lifted free of the ladder when being used.

Ladder door installation details



Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

TECHNICAL SPECIFICATION

Rung ladders

Kattsafe rung ladders for safe access to rooftops, ceiling spaces and elevated areas for maintenance. System design, supply, layout, installation and certification by a Kattsafe approved installer, as per the manufacturer's installation instructions and current standards.

Materials

All components and accessories manufactured from high grade structural aluminium with options for powder coating.

Dimensions

- Overall ladder width: 605mm
- Distance between stiles: 525mm
- Rung diameter: 45 x 32mm (profiled)
- Rung spacing: 300mm
- Stile extension above landing surface: 900mm to 1100mm
- Minimum clearance behind ladder: 200mm (vertical position)
- Maximum distance between rest platforms: 6.0m

Weight

- Ladder body sections: 2.9kg/m (excludes fixing brackets and fixings)
- Cage sections: 8.3kg/m

Fixings (refer to installation manual)

- Structural steel fixing: M10 Bolt set
- Concrete fixing: M10 Mechanical concrete anchor
- Metal purlin fixing: 14G Tek screw

Rating

- Recommended for single person use - 150kg rated.
- Industrial rated, suited to high frequency usage.
- Ladder rung grip profile rated to R10.
- Support structure integrity, suitability and fixing method to be assessed and determined by a engineer unless it is clear to a competent person prior to installation.
- Vertical line fall arrester must be only used with the fall arrest device and harness system incorporation front chest attachment and energy absorber as per AS/NZS1891.1:2009 (part 4).

Compliance

Kattsafe rung ladders are designed to conform with requirements of the Australian & New Zealand Standards AS 1657:2018, AS/NZS 5532:2013 AS/NZS/ISO22846, AS/NZS1891 and relevant codes of practices and guidelines.

Testing

Testing and performance based on requirements of Australian Standard AS1657:2018.

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 to 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.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

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.

Copyright, trademarks and product codes are property of Kattsafe.
Patents and design registrations may apply to these products.

Product brochure
Rung ladders

Installation manual
Rung ladders

QMS Certification
ISO 9001:2015

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

Kattsafe

Height access
and fall protection

1029 Mountain Highway
Boronia Victoria 3155
Australia

1300 301 755
sales@kattsafe.com.au
kattsafe.com.au

18.10.2024