

INDUSTRIAL MODULAR ACCESS STAIR TOWER

PS300



The industrial modular access system provides the ultimate safety and efficiency for roof access on commercial and industrial buildings.



Product brochure

Industrial modular access stair tower

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

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INDUSTRIAL MODULAR ACCESS STAIR TOWER

A completely modular, lightweight stair access system, reducing structural load requirements and lead times with a safer, easier installation.



High-strength construction

Manufactured with structural grade aluminium components and stainless steel profiled brackets for a high-strength system.



Adjustable components

Components can be adjusted using the t-bolt connection system to suit specific site requirements.



T-bolt

M10 T-bolt fastener providing rapid installation to minimise any drilling required of all brackets and supports.



NCC handrail for public use

Unique handrail system designed to suit NCC stair requirements with a modular zero drill, rapid install system.



Fully compliant

Manufactured and designed in compliance with NCC and AS1657:2018 standards, for frequent maintenance and public use.



Self supportable

Additional bracing and spreader trusses allow the system to be free standing up to 8.0m (conditions apply.)



Bracing excluded for visual clarity

The industrial modular access stair tower is a proprietary designed roof access system that is fully versatile to suit a wide range of building types, with rapid design and installation times providing significant cost saving and long term durability advantages.

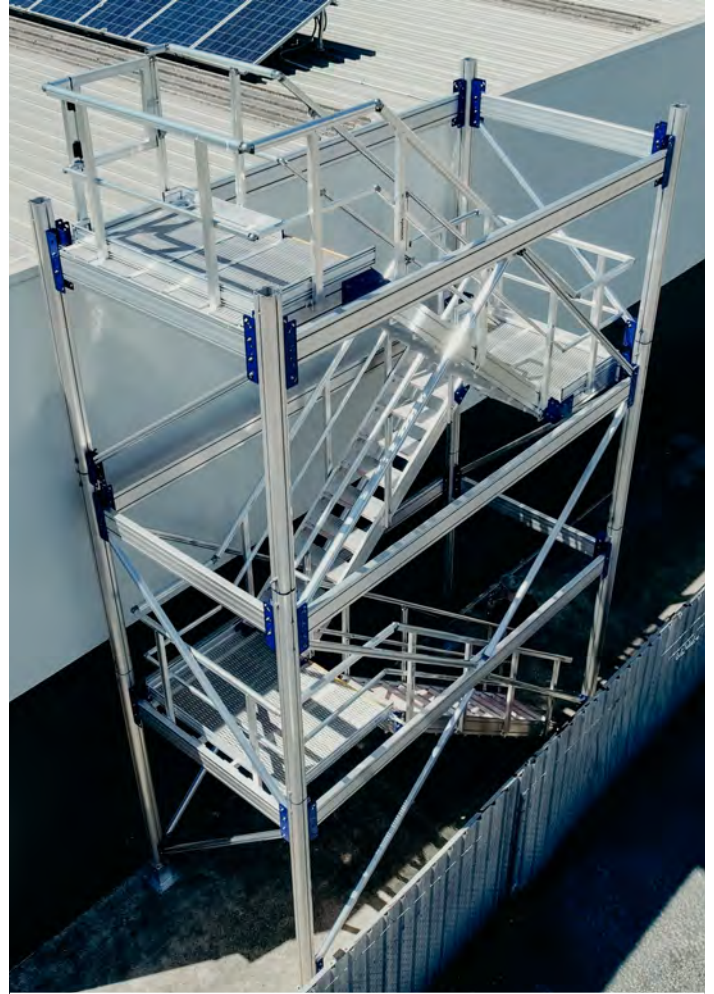
The industrial access stair tower provides safe access ideally suited to commercial and industrial structures where safe and efficient access to roofs and mezzanines for maintenance is required.

Manufactured to both NCC (handrails) and Australian Standard 1657:2018, industrial access stair towers have a unique precision and profiled stair tread and handrail design which ensures a high level of safety and confidence for maintenance personnel.

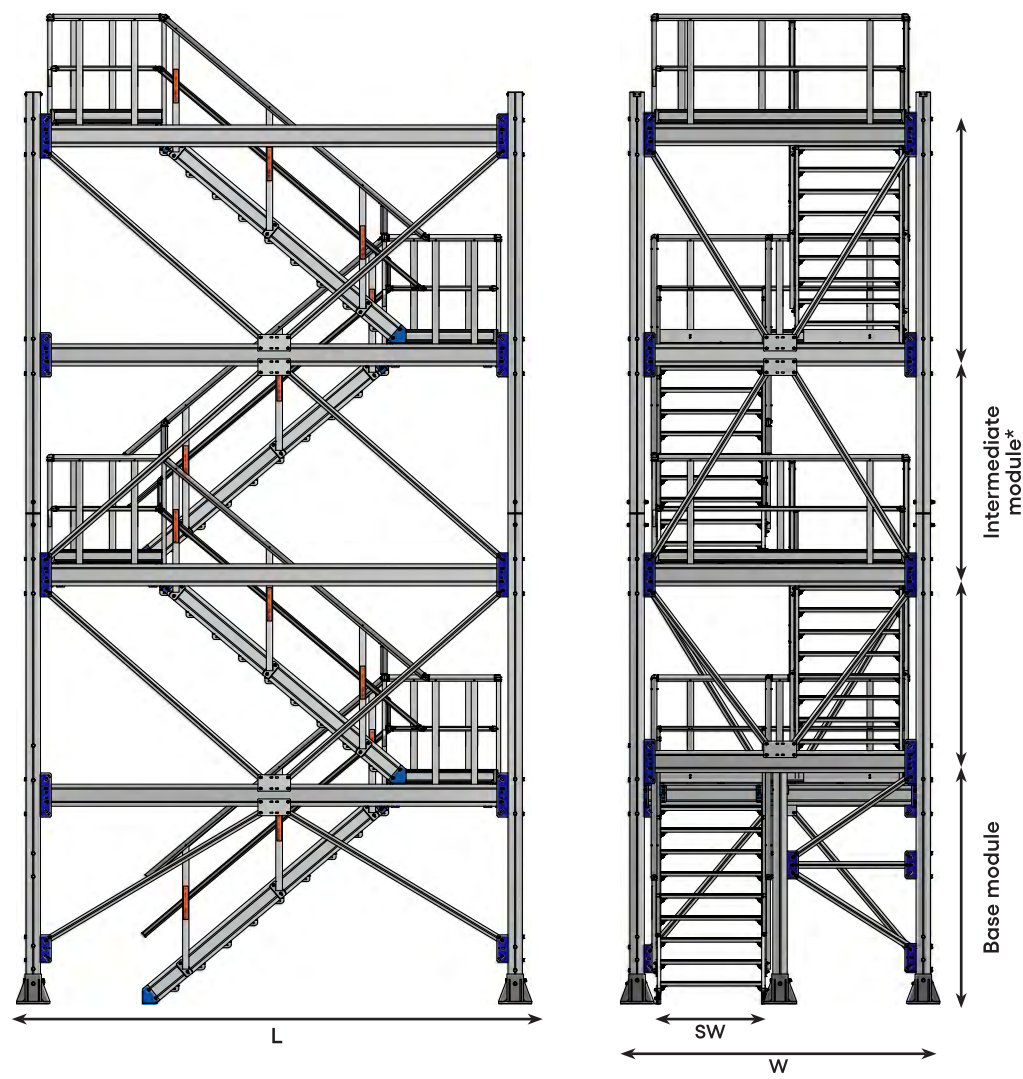
The access system has multiple configurations which can incorporate different sizes and levels depending on the structure height and application.

Features and benefits of the system:

- Light weight, reduced loads on base and support structure.
- Rapid installation and minimised installation safety risk with a completely modular construction.
- Proprietary system with engineered, off the shelf components allows rapid turn around times.
- Pre-assembled for flatpack delivery or fully assembled modules for timely installations.
- Rapid design and costing using the Kattsafe Builda™
- Aluminium construction, non-corrosive high-strength structural grade components.



SYSTEM DIMENSIONS



	PS300.600	PS300.1000	PS300.1200
Load rating (kPA)	2.5	2.5	2.5
SW: Stair width (mm)	600	1000	1200
W: Structure width (mm)	2100	2900	3200
L: Structure length (mm)	4700	4700	4700
Base module height (mm)	2400	2400	2400
Intermediate module height (mm)	2000 - 2500	2000 - 2500	2000 - 2500
Weight per module (kg)	250	310	370

Note: Dimensions and weights are a guide only and depends on site conditions.

*Can be varied based on required height

STAIR TOWER SYSTEM COMPONENTS

KB801 High span beam

200 x 60mm

Aluminium construction, designed as the primary horizontal structural stair support.



KB804 Primary support column

130 x 130mm

Aluminium construction, designed as the primary vertical structural stair support.



KB806 Bracing extrusion

60 x 60mm

Aluminium construction, designed to provide lateral bracing to stair system.



KB810 Column splice join

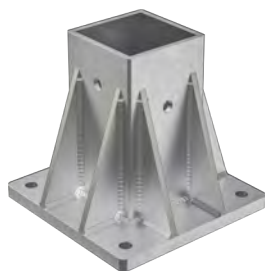
Powder coated steel Duragal with stainless steel flange designed to join vertical support columns.



KB815 Column support foot

Galvanised steel construction. High strength stair column anchor.

Dissimilar metal barrier applied to internal sleeve.



KB820 Primary structure connection bracket

Stainless steel powdercoated profiled construction designed to connect the primary elements of the stair structure together.



Stair module

Structural grade aluminium stair system designed to simple connect to stair landings.

(Maximum 17 treads at 38°)

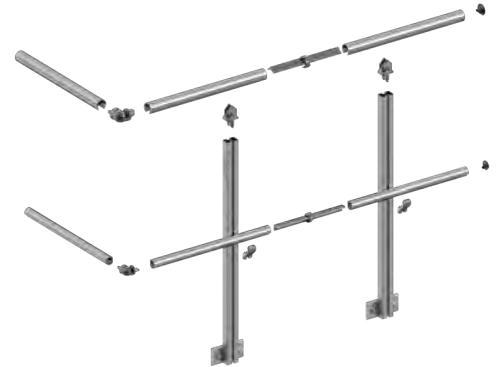


NCC COMPLIANT HANDRAIL COMPONENTS

NCC compliant handrail system

A fully modular and adjustable handrail system to suit NCC handrail compliance requirements where public access is required.

The no-drill system provides rapid installation in complex stair handrail applications, using a high strength friction-fit fastening system.



KB150 Handrail extrusion KB151 Kneerail extrusions

High strength aluminium profile to suit high volume stair use.



KB153 Handrail elbow KB154 Kneerail elbow

Universal elbow allowing any angle or transition required with fully adjustable components.

Aluminium high-pressure die cast construction.



KB160 Handrail splice connection KB161 Kneerail splice connection

Provides a high-strength support system for the handrail joins, suitable for public use.



KB165 Handrail post connection KB166 Kneerail post connection

Allows handrail and kneerail posts to be adjusted to any angle to suit stair requirements.

Aluminium high-pressure die cast construction.



KB156 Handrail endcap KB 157 Kneerail endcap

Unique high-strength endcaps with simple friction fit installation.



Handrail post

High strength aluminium profile to suit high volume stair use, with a unique t-slot design for ease of installation.

Either side mount or top mount design can be used.



TECHNICAL STATEMENT

Material

Criteria	Data	Notes
Primary structure and stair system	6005A – T5 Structural Aluminium	
Attachment support brackets	304 profiled stainless steel powder coated	
Base column support foot	Mild steel, galvanised	Dissimilar metal barrier coating applied to internal sleeve.
Stair handrail	6005A – T5 Structural Aluminium Knuckles and joiners: Pressure die cast aluminium	

Weight

Criteria	Data	Notes
KB804 Primary support column	36kg/4.0m	6005A – T5 Structural Aluminium
KB801 High span beam	45kg/6.0m	6005A – T5 Structural Aluminium
KB806 Brace extrusion	9kg/4.0m	6005A – T5 Structural Aluminium
KB815 Column support foot	10.0kg	Galvanised steel construction with dissimilar metal barrier applied to internal sleeve.
KB150 Handrail extrusion	8kg/6.0m	6005A – T5 Structural Aluminium
KB151 Kneerail extrusion	6kg/6.0m	6005A – T5 Structural Aluminium

Design parameters

Criteria	Data	Notes
Load rating on stairs and platform	2.5kPa (AS1657)	
Design life	50 years	
Terrain category	TC 3 - Terrain with numerous, closely-spaced obstructions	If other, please contact engineering@kattsafe.com.au with specific requirements.
Importance level	Level 1 - Low degree of hazard to human life and other property such as maintenance access.	
Average recurrence interval (ARI)	100 years	
Environmental classification	C3 - Moderate atmospheric corrosivity	

Dimensions

Criteria	Data	Notes
Maximum free standing height	8.0m	Higher wind regions will require intermediate supports at this height
Stair angle	35° - 45° (38° default)	Custom angles can be designed where required but will change footprint and structural performance.
Stair widths available	600mm 1000mm 1200mm	Custom widths can be manufactured to suite specific applications but will change footprint and structural performance.
Maximum slope stair tower can be attached to	5 degrees	Shim packers will need to be added inside base plate to ensure stair structure is 100% level

Fixings

Criteria	Data	Notes
KB815 Column support foot connection into concrete	4 fasteners per base plate: – M16 SS Thread and chemical epoxy	Dependent on site conditions, this may change. Concrete to be minimum 200mm thick at 32mPa.
Connection to KB816 column support foot	QTY 2 M12 x 180 SS	
KB810 Column splice join	QTY 2 M12 x 160 SS	
KB801 Beam connection to KB820 support bracket	– QTY 10 x T-bolts – QTY 2 M12 x 160 SS – QTY 4 M0 x 90 SS	

Testing and lifespan

Criteria	Data	Notes
Inspection and maintenance	Inspection of the system is recommended every 3 years by a competent person	
Compliance suitability	AS 1657:2018 AS/NZS 1170: 0,1 & 2 AS1428 (Handrail)	AS/NZS 1170.4 Seismic design is not included unless specifically requested.

NCC Handrail requirements

Criteria	Data
Height above stair nosings	Minimum 865mm
Height above landings/balconies	Minimum 1000mm
Continuity	Must be continuous along the full flight or ramp along one side.
Clearances from adjacent surfaces	Minimum 50mm from walls or obstructions.
Locations	Required on at least one side of stairways; both sides for wider stairs and high-use applications.
Strength and durability	Loads as per AS/NZS 1170 and AS 1657 standards.

DESIGN SPECIFICATION

Kattsafe PS300 Industrial modular access stair tower

The industrial stair tower is a proprietary designed roof access structure that is fully versatile to suit a wide range of building designs with rapid design and installation for areas requiring unrestricted safe maintenance and personnel access. System design, supply installation and certification must be completed by Kattsafe approved installers as per manufacturer's instructions and relevant Australian codes and standards.

Application

Used for general access to elevated areas for maintenance and personnel where higher frequency of access is required and transportation of maintenance equipment and parts is necessary. The system is suited to multi users at any one time.

Design requirements

The Kattsafe stair tower is a proprietary designed system and is designed using the Kattsafe Builda configurator using a series of predetermined loads, spans and deflections.

All final designs must be signed off by a structural engineer competent in the use of structural grade aluminium based on the location, elevation and connection details to the main building structure.

The stair tower system must only use components designed and approved by Kattsafe to ensure structural conformance. This structure has a design life of 50 years under normal usage conditions.

Soil design and footings are not part of our design.

Installation requirements

The Kattsafe stair tower must be installed by a Kattsafe approved installer and must comply with all requirements as set out in the design and installation manual for the system.

The install company to provide a minimum warranty of the system and installation of 10 years.

User requirements

The Kattsafe stair tower does not require the use of fall protection harness gear making the system a simple, safe and efficient access solution.

Any personnel accessing roofs or other elevated areas must obtain the required permissions from the site coordinator prior to working at heights.

Maintenance requirements

Inspection of the system is recommended every 3 years by a competent person in accordance with manufacturers specifications and the required codes and Australian Standards.

Where the system has been installed in corrosive or constant maximum load applications, inspections should be conducted more regularly as determined suitable.

Maintenance must be carried out by a competent technician and documented in a location that is accessible by the site coordinator.

Compliance

The Kattsafe stair tower has been designed in accordance with AS1657:2018, AS/NZS 1170, AS1428 and National Code Compliance (handrails).

AS/NZS 1140.4 Seismic design is not included unless specifically requested.

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).

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
Modular access systems



QMS Certification
Kattsafe Australia

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

Kattsafe®

Height access
and fall protection

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