

MODULAR ACCESS SYSTEMS

MODULAR

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Engineered, no weld, modular access systems, designed for easy customisation and on-site assembly. With re-usable components, Alta Safety modular access systems save design costs and reduces delivery lead times.

SYSTEM OVERVIEW

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



MODULAR ACCESS SYSTEMS



1

Construction

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



2

Adjustable components

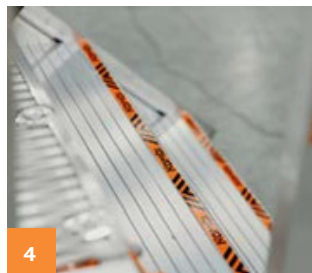
Allows components to be installed with basic tools and can be adjusted to suit on-site requirements.



3

T-bolt

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



4

Load rating

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



5

Preassembled

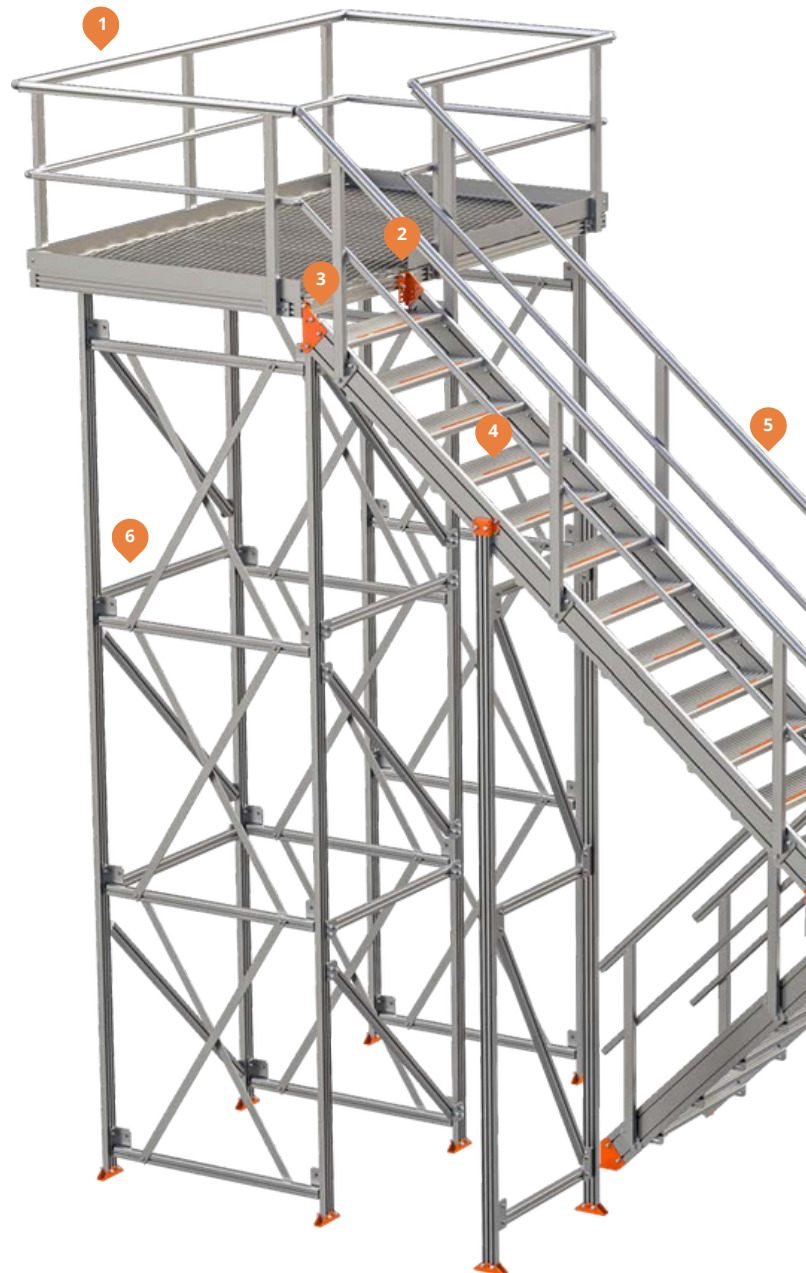
Supplied on-site as a flat-packed unit ensuring fast install times with less handling required than typical steel systems.



6

Self-supportable

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



An engineered, fully modular access system that is flexible, versatile and easy to install, the ideal solution for access.

Manufactured from lightweight aluminium modular components and designed for a live load capacity of 2.5kPa, the aluminium system is manufactured to create a easy and quick installation for users.

Features and benefits of the system:

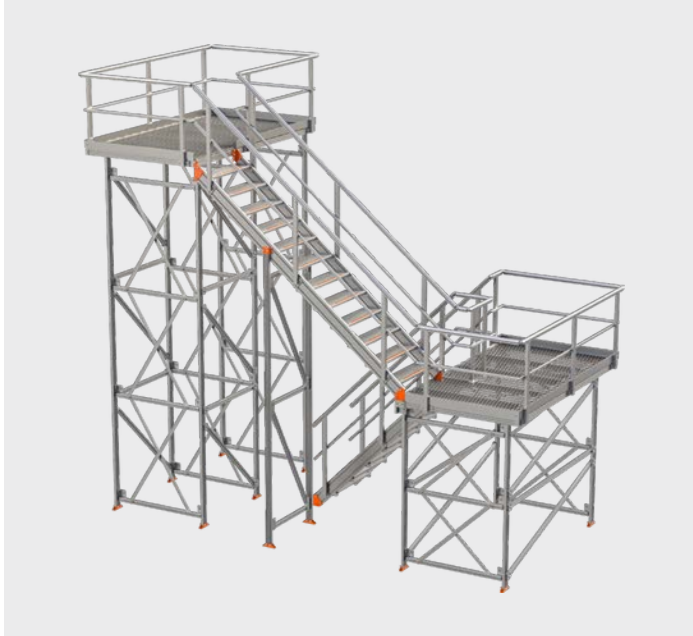
- Lightweight, less load on structures.
- Fit into tight or congested spaces.
- Modular design, with fully adjustable and replaceable components.
- No welding or hot works permits required.
- Cost effective compared to steel.
- Various flooring materials available.
- Various configurations to conform to site situations.



SYSTEM CONFIGURATIONS

Stairs

Used for access up to 6.0m in height with change in direction platforms. The adjustable stair treads allows flexibility of platform height to suit supporting structure.



Platforms

Used to provide access to machinery and elevated equipment for inspection and maintenance. The size and height is adjustable to suit specific site requirements.



Crossovers

Used for access over ducts, conveyors and machinery. Stair heights are adjustable to suit specific bridge height, with bridge lengths in modules from 1.0m to 6.0m



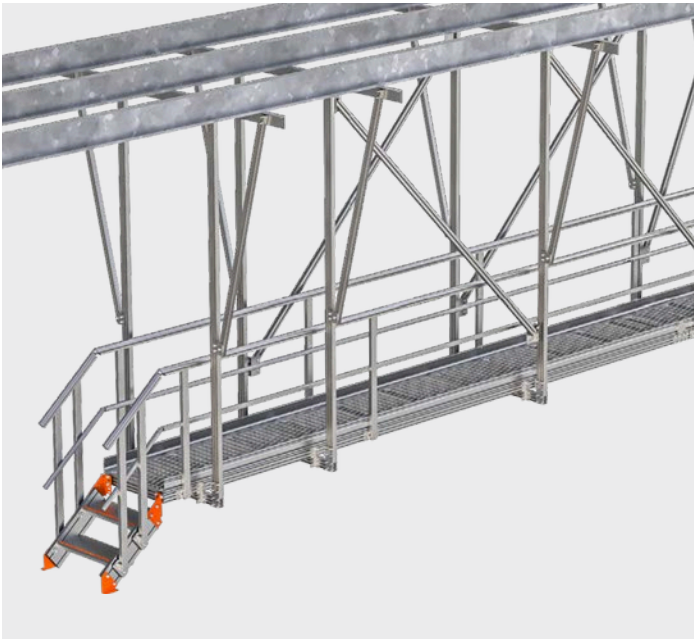
Elevated walkway

To provide access to cooling towers, water tanks and machinery where the platform is required to be custom built, and can be free standing up to 6.0m with bracing.



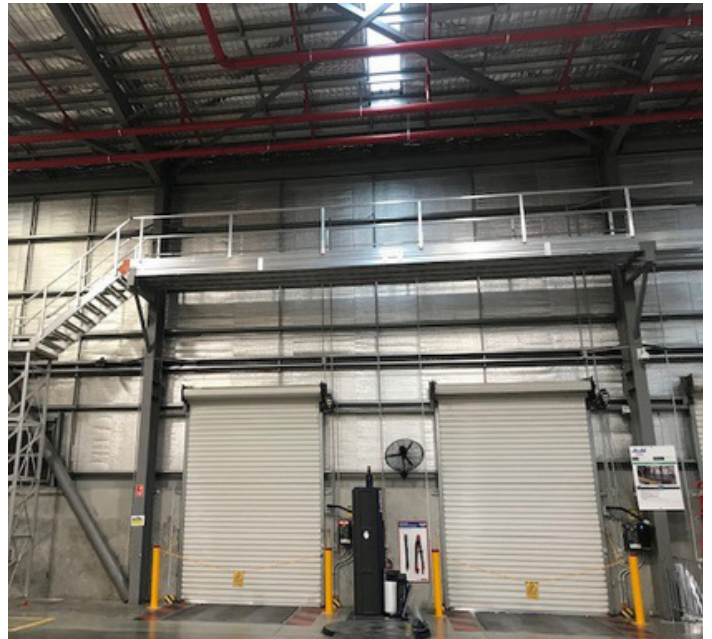
Suspended walkway

Providing access above plant equipment and personnel or into internal ceiling spaces. It can be mounted to roof purlins or concrete and is suitable for drop heights of up to 6000mm.



Cantilevered walkway

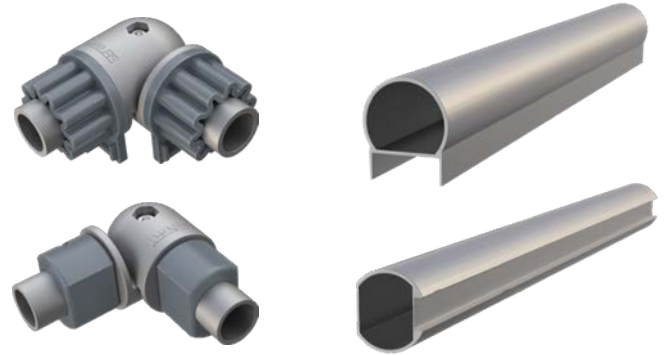
Designed to create access to elevated areas where support from the floor or ceiling cannot be provided. The system is mounted onto the wall using cantilevered brackets.



MODULAR ACCESS SYSTEMS COMPONENTS

Handrail and kneerail

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



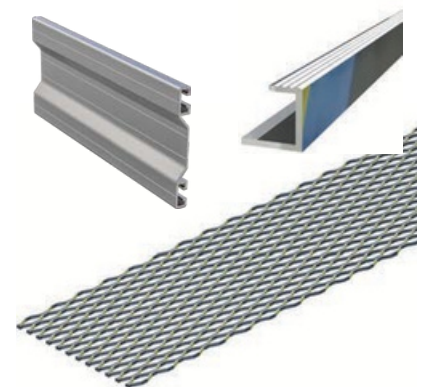
Stairs

- KBo10 Stair tread
- KBo31 Stair mount bracket
- KBo34 Stair adjustable foot



Platforms

- KBo60 Platform cross support
- GW320 Toe board
- GW329 Platform mesh edge bar
- GW335 Platform mesh



KBo05 T-bolt



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

TECHNICAL STATEMENT

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 Alta Safety 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	$V_{100} = 41\text{m/s}$
Terrain Category	2
Topographical Multiplier	$MT = 1.0$
Terrain/Height Multiplier	$M_{zcat} = 0.96$
Shielding Factor	$MS = 1.0$

Fasteners

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 / m ²	
80 Extrusion	Approx 2.8kg / m	
180 Extrusion	Approx 4.2kg / m	
Platform including walkway mesh	Approx 18kg / m ² (Excluding handrails)	This is an approximate weight only. Depending on different combinations this can vary.

TECHNICAL SPECIFICATION

Modular access systems

A proprietary modular access 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, powder coated.
- 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

- Modular access systems are designed to AS1657-2018
- Working load limit 2.5kPa

Compliance

Modular access systems 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@Alta Safety.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 Alta Safety 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.

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TECHNICAL DRAWINGS KEY



Rate to
15kN



Person
Capacity



Abseil



Fall Arrest



Restraint
Technique