

KOMBI[®]

MODULAR ACCESS

1300 301 755

KOMBIACCESS.COM

ENGINEERED, NO WELD, MODULAR
STAIR & PLATFORM SYSTEM DESIGNED
FOR EASY CUSTOMISATION AND
ON-SITE ASSEMBLY. WITH RE-USABLE
COMPONENTS, KOMBI SAVES DESIGN
COSTS & REDUCES DELIVERY LEAD TIMES.

PRODUCT
BROCHURE



KOMBI[®] MODULAR ACCESS SYSTEM

OVERVIEW

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

KOMBI is 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 considerably.

KOMBI is the safest solution for access and fall protection whilst accessing and maintaining elevated systems and equipment.

POST BRACKET

Attaches support structure to platform



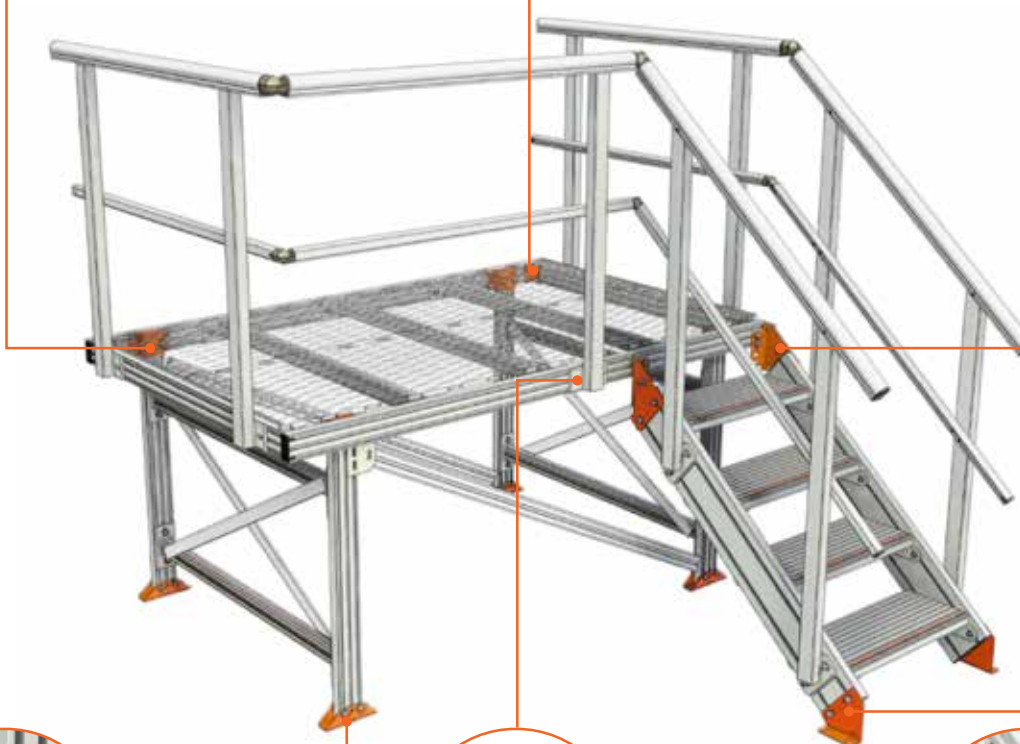
CORNER BRACKET

Secures platform corner structure



ADJUSTABLE STAIR BRACKET

Allows varying degree of stair angle and tread positioning



PLATFORM FOOT

Secures platform to ground



KOMBI T-BOLT

Proprietary KOMBI fastening system



STAIR FOOT

Attaches stair to landing surface

UNIQUE
PRODUCT FEATURE

MODULAR ADVANTAGES

VARIABLE STAIR ANGLE & TREAD SPACING

KOMBI stairs can be adjusted to suit the required stair angle whilst allowing each individual tread to be leveled and spaced accordingly. This minimises pre-installation precise on-site measurement and fabrication requirements resulting in significant time savings.

PATENTS AND DESIGN REGISTRATIONS APPLY



PRE-ENGINEERED, MODULAR SYSTEMS PROVIDING EFFORTLESS ASSEMBLY

1 SUPPORT MODULE

- This module is constructed first
- Constructed using KOMBI 80 aluminium extrusion
- Lateral bracing construction to suit size and loading of platform
- KOMBI support components connected using profiled brackets secured with M10 KOMBI T-Bolt



2 PLATFORM MODULE

- This module is constructed second
- Constructed using KOMBI 80 or 180 aluminium extrusion dependent on platform size and spans required
- Guardrail posts constructed using 58mm x 38mm aluminium extrusion with profiled top and midrails attached to post
- Platform deck constructed from expanded aluminium mesh
- KOMBI platform components connected using profiled brackets secured with M10 KOMBI T-Bolt



3 STAIR MODULE

- This module is constructed third
- Constructed using KOMBI 180 aluminium extrusion for stair stringer and KOMBI tread aluminium extrusion for stairs
- Stair module angle designed to function between 25° and 45°
- Stair treads designed to be leveled and spaced to suit final stair angle
- Handrail posts constructed using 58mm x 38mm aluminium extrusion with profiled hand and midrails attached to posts
- KOMBI stair components connected using profiled brackets secured with M10 KOMBI T-Bolt



KOMBI[®] MODULAR ACCESS SYSTEM

CONFIGURATIONS

KOMBI systems are constructed using a standard range of components configured in different ways to suit application.

KOMBI is set up as pre-configured systems supplied in kit form allowing shortened delivery times.

KOMBI can also provide purpose built designs to suit specialist applications. This can be supplied in kit form or assembled if required.



PLATFORM WITH SINGLE STAIR

- Used for access to machinery and elevated equipment for inspection and maintenance
- Platform size and height is adjustable to suit specific site requirements
- Stair adjustable to suit final platform height
- Suited to free-standing construction where required
- Designed to AS1657:2018



CROSSOVER WITH DUAL STAIR

- Used for access over ducts, conveyors and machinery
- Stair heights are adjustable to suit specific bridge height
- Bridge lengths in modules from 1.0m to 6.0m
- Suited to free standing construction where required
- Designed to AS1657:2018



SUSPENDED PLATFORM

- Used for access in ceiling spaces or above heavy machinery for maintenance
- All platform and supports are adjustable allowing on-site customisation where required
- Platform supports at approx 2.0m intervals depending on required loads and spans
- Designed to AS1657:2018

DESIGN - CREATE - BUILD

LIGHTWEIGHT, HIGH STRENGTH ALUMINIUM SYSTEM ALLOWS ENDLESS DESIGN AND INSTALLATION FLEXIBILITY



MULTI STAGE STAIRWAY

- Used for access up to 6.0m in height with change in direction platforms
- Adjustable stair treads allows flexibility of platform height to suit supporting structure
- Suited to free-standing construction where required
- Designed to AS1657:2018



PURPOSE BUILT PLATFORM STRUCTURES

- Used for access to cooling towers, water tanks and machinery where platform is required to be custom built
- KOMBI facilitates on-site construction allowing site specific design flexibility and attachment to structure
- The KOMBI high strength bracing system allows platforms to be free standing up to 6.0m
- Designed to AS1657:2018

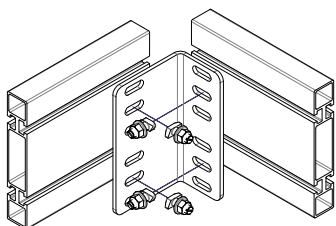
KOMBI® MODULAR ACCESS SYSTEM

COMPONENTS

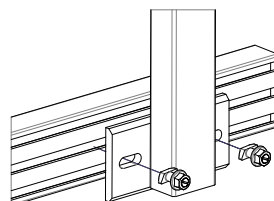
KOMBI components include a combination of stainless steel profiled support brackets and aluminium platform beams, support posts and stair tread extruded profiles.

All KOMBI components are proprietary to the system and designed to be used in multiple applications and configurations.

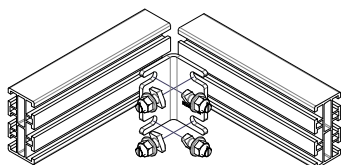
For simplified construction, the unique KOMBI T-Bolt allows insertion and fixture through the face of the profiled support brackets into the fixing slot of the extrusion.



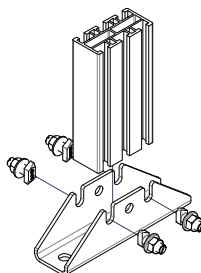
KB013.180
KOMBI 180 WITH ANGLE
BRACKET



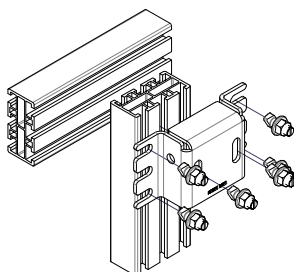
KB603S
KOMBI SIDE MOUNT POST
KIT



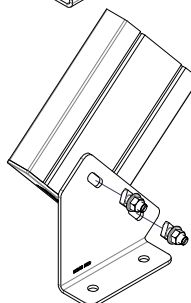
KB013.80
KOMBI 80 WITH ANGLE
BRACKET



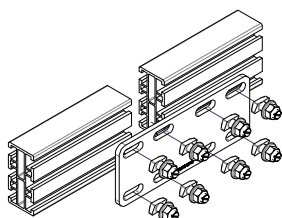
KB026
KOMBI 80 WITH BASE
SUPPORT FOOT



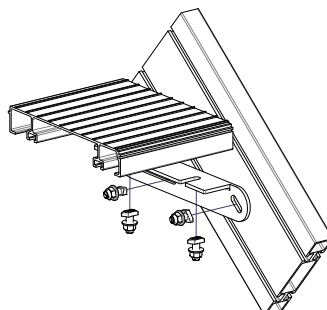
KB021
KOMBI 80 WITH TOP
SUPPORT BRACKET



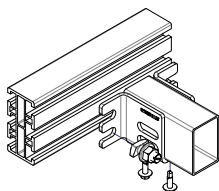
KB034
KOMBI STAIR WITH FOOT
180MM ADJUSTABLE



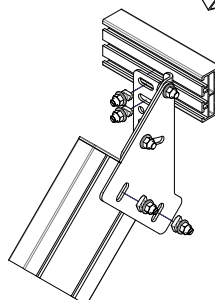
KB016.80
KOMBI 80 WITH POST
JOINING PLATE



KB019
KOMBI STAIR TREAD WITH
CONNECTION BRACKET



KB012
KOMBI 80 WITH
HORIZONTAL SUPPORT
BRACKET



KB031
KOMBI STAIR MOUNTING
WITH ADJUSTABLE
BRACKET

KOMBI® MODULAR ACCESS SYSTEM

DESIGN

Standard KOMBI configurations are designed to AS1657-2018. Variation to configuration to accommodate wind loading and other site specific influences needs to be taken into account.

KOMBI systems are suitable for harsh environments including external applications. Very high acidic environments will require additional coating protection to aluminium components.

KOMBI is delivered as a flat pack solution for assembly on-site or pre-assembly and delivered as a complete unit.



SUPPORT MODULE DIMENSIONS

WIDTH	HEIGHT
600 Series	From 600mm to 6.0m in 200mm increments
900 Series	
1200 Series	

Note: Many other configurations are available - contact Sayfa



PLATFORM MODULE DIMENSIONS

WIDTH	HEIGHT
600 Series	From 600mm to 6.0m in 300mm increments
900 Series	
1200 Series	

Notes: Many other configurations are available - contact Sayfa.
Guardrails provided to suit platform design.



STAIR MODULE DIMENSIONS

TREAD WIDTH	VERTICAL HEIGHT
610mm	From 400mm to 4.0m in 200mm increments
915mm	
1220mm	

Notes: Many other configurations are available - contact Sayfa.
Guardrails provided to suit stair design.

IDEAL FOR CONFINED SPACE SOLUTIONS ALLOWING EASY ACCESS & IN SITU ASSEMBLY



No.	CODE	DESCRIPTION
1	GW382	HANDRAIL ELBOW
2	GW383	KNEERAIL ELBOW
3	GW374	HANDRAIL TUBE
4	GW375	KNEERAIL TUBE
5	KB603S	GUARDRAIL POST SIDE MOUNT
6	GW300	STAIR HANDRAIL POST
7	GW374	STAIR HANDRAIL TUBE
8	GW375	STAIR KNEERAIL TUBE
9	GW378	HANDRAIL END CAP
10	GW379	KNEERAIL END CAP
11	KB003	KOMBİ 180 EXTRUSION
12	KB010	STAIR TREAD
13	KB034	STAIR ADJUSTABLE FOOT

No.	CODE	DESCRIPTION
14	KB026	BASE SUPPORT BRACKET 80MM
15	KB001	KOMBİ 80 EXTRUSION
16	KB530	SUPPORT BRACE
17	KB021	TOP SUPPORT BRACKET 80MM
18	KB013.80	BRACE SUPPORT BRACKET
19	KB005	KOMBİ T-BOLT
20	GW320	TOE BOARD
21	KB013.80	ANGLE BRACKET 80
22	GW335	PLATFORM MESH
23	KB060	PLATFORM CROSS SUPPORT
24	KB031	STAIR MOUNT BRACKET
25	GW329	PLATFORM MESH EDGE BAR

KOMBI PLATFORMS & STAIRS ARE DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1657:2018



DESIGN - CREATE - BUILD

TECHNICAL STATEMENT

CRITERIA	DATA	NOTES
ALUMINIUM EXTRUSION		
KOMBI 180	Aluminium Grade 6005A-T5	
KOMBI 80	Aluminium Grade 6005A-T5	
KOMBI 60	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 LOADINGS		
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 Sayfa technical advice.
Platform Support Spans	<p>KOMBI 80 SERIES 600mm Platform - 3300mm max spacing 900mm Platform - 2700mm max spacing 1200mm Platform - 2500mm max spacing</p> <p>KOMBI 180 SERIES 600mm Platform - 6000mm max spacing 900mm Platform - 5500mm max spacing 1200mm Platform - 5100mm max spacing</p>	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 LOADINGS		
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	<p>Riser - $130 \leq R \leq 225$ Going - $215 \leq G \leq 355$ Combination = $540 \leq (2R + G) \leq 225$</p>	All risers and goings in the same flight of stairs shall be of uniform dimensions within a tolerance of ± 5 mm.
Limitations Of Use	Not suitable for BCA / NCC stair design.	

TECHNICAL STATEMENT

CRITERIA	DATA	NOTES
DESIGN WIND CRITERIA		
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	
FASTENERS		
Material	Stainless Steel 316	
KOMBI T-Bolt Fixing	M10 x 25mm, 316 SS	
KOMBI Nut Torque	60Nm	
HANDRAIL		
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 KOMBI GW320 100mm high	Required if an object could fall from a platform or landing onto an area to which access by persons is available.
Platform Flooring Mass	12kg / m ² . This includes platform and handrails.	
Limitations Of Use	Not suitable for BCA / NCC stair design.	
DISSIMILAR METALS		
Aluminium To Concrete	To be painted with a bitumen paint.	
Aluminium To Roof Deck	Shall be separated with EPDM tape.	

CASE STUDY - MIRVAC PROPERTY GROUP

PROJECT DETAILS

Mirvac is a leading Australian property group who owns and manages assets across the office, retail and industrial sectors. The project was to be carried out at St Martins Tower located within Sydney's busy CBD district.

PRODUCTS

KOMBI Stairs, Crossovers & Platforms

CHALLENGES

The client required a two level platform system that would provide access to their cooling towers.

As the components could not be craned in, the only delivery option available was by the lift system. Adding to the complexity was the client's request for an extremely short installation time as they wanted minimal on-site disruption.

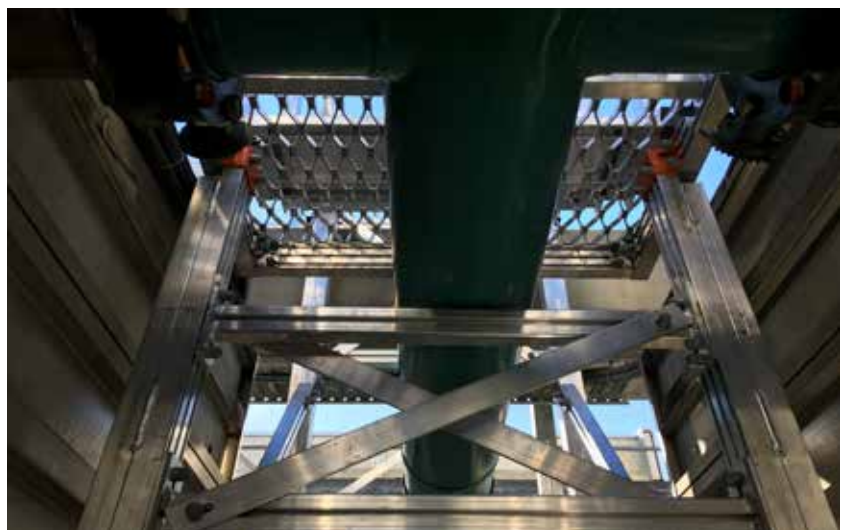
The myriad of existing pipework and structures where the system was to be installed was also a challenge that would require out of the box thinking to deliver structurally sound systems.

SOLUTION

Planning and design for this project was key towards providing a system that would give the client ease of access to equipment, as well as no compromise on strength or integrity.

Due to the KOMBI's modular design all the components were easily transported via lifts. On-site assembly and in situ customisation ensured the systems could be woven around the existing pipework and structures.

Within 24 hours an intricately designed KOMBI system was installed, resulting in an extremely happy client who praised not only KOMBI's versatility but also it's ability to provide such a high quality result in a very short time frame.



CASE STUDY - GODFREY HIRST



PROJECT DETAILS

Godfrey Hirst is the largest manufacturer and exporter of residential and commercial carpets in Australasia.

PRODUCTS

KOMBI Stairs and Crossovers

CHALLENGES

First and foremost Godfrey Hirst required a system that was flexible on-site to enable minor changes without the need for hot works and fabrication.

The client's plant consisted of a complex conveyor belt system over which access was required. Space was at a minimum and the design required systems that would not only allow worker access but also installation within constricted areas.

An additional challenge was the need for the systems to be adapted to enable seamless integration between the client's existing platforms and walls.



SOLUTION

The KOMBI modular platform system was a perfect solution. Adapted on-site without the necessity for pre-measuring or welded fabrication the systems could be modified easily as required.

KOMBI's modular design enabled easy delivery and assembly within tight and constricted areas.

CASE STUDY - GLAXO SMITH KLINE

PROJECT DETAILS

Glaxo Smith Kline is the six largest pharmaceutical company in the world.

PRODUCTS

KOMBI Two-Stage Stairs

CHALLENGES

Glaxo Smith Kline's Australian operations in Ermington NSW were requiring an access solution between levels and the delivery of a system within a short period of time was an essential requirement.

With such a tight time frame a product with short delivery lead times had to be supplied so as not to hold up installation.

Products also needed to be delivered in modules to enable workers to locate the stairway into the constricted area.

SOLUTION

Glaxo Smith Kline ordered KOMBI components "off the shelf" ensuring delivery and installation in a matter of days.

KOMBI's modular design, with its easy maneuverability, and the flexibility to be adjusted on-site was a huge benefit if there were any discrepancies with site pre-measurements.



TECHNICAL SPECIFICATION

SYSTEM CODE

KOMBI SUPPORT STRUCTURE, PLATFORM & STAIR SYSTEM
KB6000

TECHNICAL DATA

MATERIALS

- Manufactured from high grade structural aluminium
- Kombi fixing brackets, joining plates and support feet manufactured from profiled stainless steel plate powder coated burnt orange
- Kombi T-Bolt manufactured from stainless steel

DIMENSIONS

- Kombi 80 extrusion: 80 x 38mm
- Kombi 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

FIXINGS

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

WEIGHT

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

WORKING LOAD LIMIT

- Kombi platforms are designed to AS1657-2018 (Platform working load limit 2.5kPa)
- Kombi stairs are designed to AS1657-2018 (Stair working load limit 2.5kPa)

COMPLIANCE

Kombi 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 AS1657-2018 and AS/NZS1170 under live load conditions.

PRODUCT WARRANTY

10 years from date of purchase subject to correct configuration and installation. Use and maintenance to be in accordance with manufacturer's specifications and recommendations.

INSPECTION AND MAINTENANCE

Inspection required every 12 months by competent person in accordance with manufacturer's specifications and requirements of Australian Standards AS1657-2018.

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.





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THE SAYFA GROUP

WE SAVE LIVES!

This is our Mission, and it drives our Vision to BRING EVERY WORKER HOME SAFELY.

Sayfa Group leads the industry in the design, installation and management of access, fall protection and ground safety systems. As an Australian owned company, we engineer and rigorously test our proprietary systems to exceed national and international standards. Simple installation and easy to use systems are our key drivers for ensuring maximum effectiveness, improved safety and compliance with Occupational Health and Safety standards in the workplace.

OUR VALUES

We are governed by the following principles in everything we do:

- A – Accountability / Totally responsible and answerable for our actions.
- L – Loyalty / Steadfast and dependable based on our values in our dealings with one another.
- I – Integrity / Honest and sincere, we do what we say, on time every time.
- V – Value Driven / Increase what's of value in view of a win win plan for all.
- E – Enthusiastic / Motivated and inspired to continuously perform better.

COMMITMENT

We are passionate about our work with every product a testament to our commitment of world class safety, quality and performance. Our obligation is to live up to our own high standards as well as those of our customers and stakeholders ensuring total peace of mind.

