

USER'S MANUAL HAKI PUBLIC ACCESS STAIR



Important information

HAKI's product liability and user's manuals apply only to scaffolds that are entirely composed of components that have been made and supplied by HAKI.

HAKI's type examination certificate apply only to scaffolds whose materials, dimensions and design accord with those specified in the documentation upon which this certificate is based.

HAKI's scaffold systems must not be erected using components of makes other than HAKI or be connected to scaffolds of makes other than HAKI. In such cases, a special study of load-bearing capacity must be carried out. However, HAKI has no objection to the customary addition of scaffold tubes and approved couplers to the scaffold.

Adding components from different suppliers may invalidate the insurance cover.

HAKI reserves the right to make technical modifications on a continual basis.
















A user's manual should be provided to the user together with the scaffolding.

The latest versions of HAKI user's manuals can be downloaded from our website, www.HAKI.com.

For scaffold structures that are not covered by this user's manual, please contact HAKI's technical department.

HAKI colour code

Horizontals and diagonals are marked with their nominal sizes (bay sizes) and a colour code. The marking is a useful means of identification when erecting and handling the scaffold material.

564 	1050 	1964 	3050 
700 	1250 	2050 	3650 
770 	1550 	2500 	4050 
1010 	1655 	2550 	

Forces and dimensions

1000 N = 1 kN ~ 100 kg

10 N ~ 1 kg

All measurements in mm

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HAKI Public Access Stair

Public Access Stairs are designed for loadings up to 7.5 kN/m^2 and are suitable for public use in line with national standards. Public Access Stair complies with requirements of UK standard The Building Regulations 2000 Protection from falling, collision and impact: The requirement K1. Stairs, ladders and ramps: shall so be designed, constructed and installed as to be safe for people moving between different levels in or about the building.

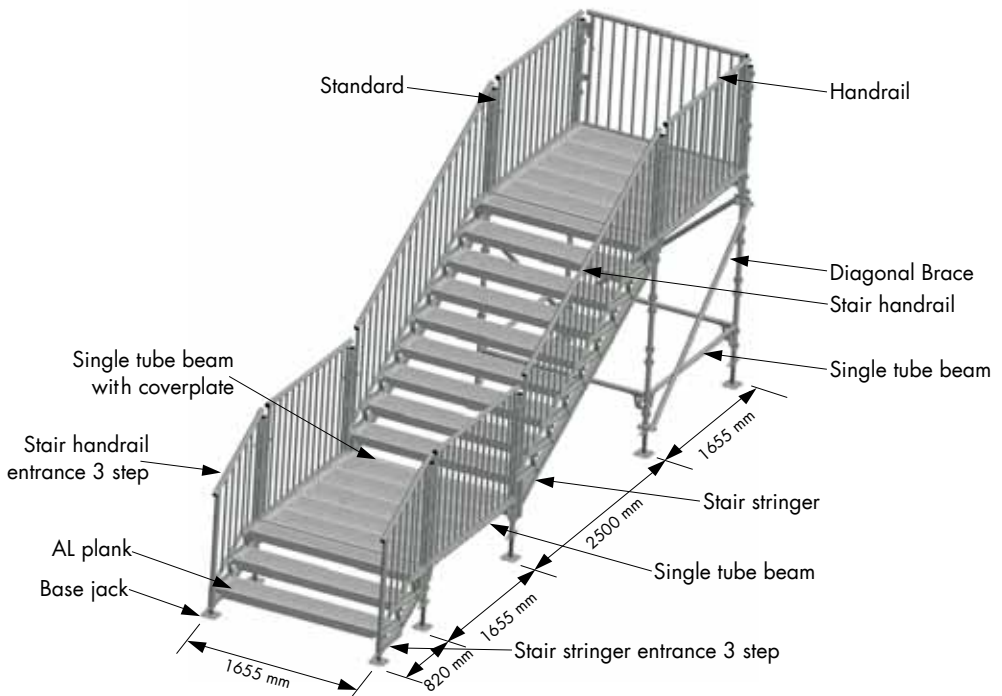
General







The HAKI Public Access Stair incorporates the use of many HAKI Universal system components including the base jacks, standards, diagonal braces and landings. The stair stringers and handrails are specially designed for use on a Public Access Stair.







HAKI Public Access Stairs are erected in bay widths of 1655mm, 1964mm or 2500mm and lengths of 1655mm or 2500mm. Lift heights can be 500, 1000 or 1500mm. Single Tube Beams or Ledger Beams can be used as both Transoms or Ledgers. The stair tower can be erected as a free standing entity or to be connected to a scaffold. All components for the HAKI Public Access Stair are hot dip galvanized with the exception of the treads and landings.





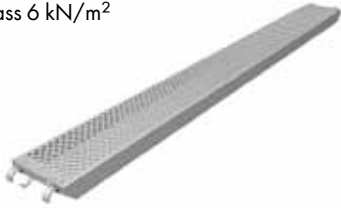
Marking



All components, with the exception of locking catches, locking pins etc, come permanently marked with the HAKI logo and the last two figures of the year of manufacture (H S15). All loadbearing components are marked for full traceability. For further information, please refer to the HAKI Safety Guide.






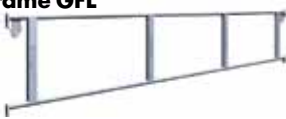


Name		Code	Item No.	Weight
Base jack Adjustable 55-570 mm		BS	2071000	5.0
Standard S Standard joint with spigot Pockets at same level Ø 48 mm		S 500 S 1000 S 1500 S 2000 S 3000	7016050 7016100 7016150 7016200 7016300	2.9 5.3 7.7 10.1 15.2
Standard SC Standard joint without spigot Pockets at same level Ø 48 mm		SC 853 SC 1353 SC 1853	7011104 7011154 7011204	4.8 7.3 9.8
Tripod With pockets on one standard Pockets at same level Ø 48 mm		500 1000 2000 3000	7203340 7203341 7203342 7203343	10.0 17.3 31.8 48.8
Adapter tripod		Adapter tripod 60 Base jack BS 60	7203312 2071061	11.6 15.6
Ledger beam With spring locking catch Ø 34 mm		LBL 1655 LBL 2500	7021162 7021252	6.7 10.9

Name	Code	Item No.	Weight
Single tube beam With spring locking catch Ø 48 mm 	ERB 1250	7022121	5.1
	ERB 1655	7022161	6.3
	ERB 1964	7022191	7.3
	ERB 2500	7022246	8.9
Single tube beam with coverplate With spring locking catch Ø 48 mm 	ERB 1250	7104125	6.7
	ERB 1250 S	7104126	7.2
	ERB 1655	7104165	8.5
	ERB 1655 S	7104166	8.5
	ERB 1964	7104191	10.0
	ERB 1964 S	7104192	10.7
Stair stringer entrance 3 step S 		7102006	10.7
Stair stringer 	1655x1000	7102100	24.0
	2500x1500	7102150	34.5
Stair handrail entrance 3 step 		7058004	15.0
Stair handrail Adjustable in height 	1655x500	7058050	24.0
	1655x1000	7058100	26.5
	2500x1500	7058152	38.5

Name	Code	Item No.	Weight
Handrail Adjustable in height 	1100/700	7053070	11.9
	1100/770	7053077	12.5
	1100/1050	7053105	15.7
	1100/1250	7053125	17.5
	1100/1655	7053165	23.0
	1100/1964	7053191	28.2
	1100/2500	7053250	34.2
Handrail Tripod Adjustable in height 355-630 		7058000	6.0
Diagonal brace With wedge couplers Ø48 mm DS 1655 L=2240 DS 3050 L=2972 	DS 1655	7122160	10.1
	DS 2500	7021250	12.3
Wall tie With plate with flexible joint Fitted using right angle coupler RA 48x48 	VST 1000	7111100	5.3
	VST 2000	7111200	9.1
	VST 3000	7111300	13.7
	VST 4000	7111400	16.7
	VST 5000	7111500	21.9
	VST 6000	7111600	24.5
AL plank Load class 6 kN/m ² 	770x320x90	2153077	4.6
	1655x320x90	2153163	7.9
	1655x295x90	2153164	7.5
	1655x200x90	2153165	6.2

Name		Code	Item No.	Weight
Right angle coupler Jaw width 22 mm		RA 48x48 22 mm	2041012	1.0
Swivel coupler Jaw width 22 mm		SW 48x48 22 mm	2041013	1.2

Erection accessories

Name		Code	Item No.	Weight
Grating AL		1655x495	2021204	10.0
Decking unit		1655x600 2500x600	4071162 4071252	13.5 19.6
Decking unit with hatch		1655x600 2500x600	4071163 4071253	17.0 19.5
Guardrail frame GFL		GFL 770 GFL 1655 GFL 2500	7052077 7052164 7052254	4.0 7.4 9.2
Erecting tool Advanced guardrail tool			4052001	1.4
Scaffold ratchet spanner		21/22 22/23	2051022 2051023	0.5 0.5

For other accessories, see HAKI Component List.

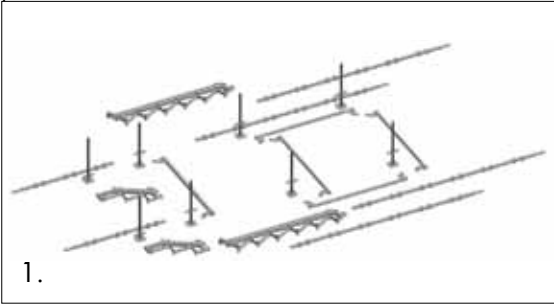
Information on safety when erecting and dismantling

1. Carry out local risk assessment and method statement.
2. Make sure that all lifting equipment to be used, e.g. chain hoists, lifting ropes, pulley blocks, etc., has been thoroughly tested and approved by an authorised person in accordance with local regulations.
3. Check that tools and protective equipment are available at the worksite.
4. Wear appropriate personal safety equipment at all times, e.g. safety harnesses, proper independence lifelines with suitable fixings, etc.
5. When erecting and dismantling a scaffold, robust temporary decking must be used as temporary platforms for platforms for the scaffolders.
6. Always make sure that the safety locking devices that prevent a platform lifting off have been activated once a platform has been installed.
7. Study all relevant instructions or safety directions from the manufacturers of the various scaffolds that are to be used.
8. Never climb up a scaffold from the outside. Always use the stairs, ladders or climbing frames that are designed to provide access to the upper decks from the inside of the scaffold.
9. If the scaffold is to be used outdoors, erection or dismantling work must be discontinued if the weather conditions are too bad. Make sure that all loose components are properly fixed before leaving the scaffold.
10. Scaffolding work must be done by “competent operatives” under the supervision of a “competent person”.
11. Lifting equipment must not be attached to a free-standing scaffold.
12. Beware of any overhead power lines nearby.
13. Always observe and comply with the regulations issued by the local authorities concerned.

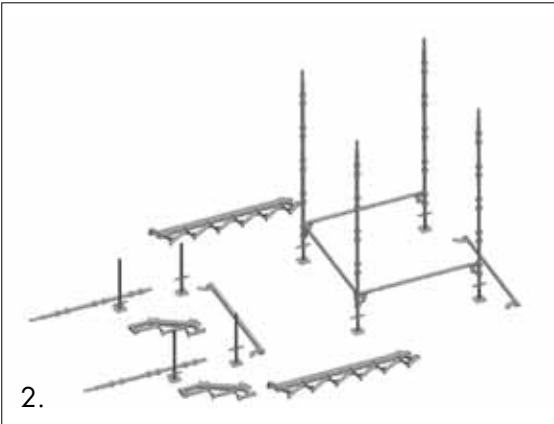
Instructions for dismantling

1. Dismantle the scaffold from the topmost lift.
2. Start by taking down the toe boards.
3. Take down the topmost decking.
4. Take down the horizontals and diagonals of the topmost lift.
5. Finally remove the standards where possible.
6. Repeat 2-6 to take down the second topmost lift and continue the whole process until the dismantling process reached the scaffold is completely dismantled.
7. Do not throw or drop materials to the ground. This may damage the material or cause personal injury. The materials must be lowered down to the ground by means of ropes or slings or passed down by hand.
8. If intermediate ties or tie rod tube have been installed, they must not be removed until the dismantling process reaches the level in question.
9. Always observe and comply with the regulations published by the local authorities concerned.
10. Reference should also be made to the section “Information on safety when erecting and dismantling” in this manual.

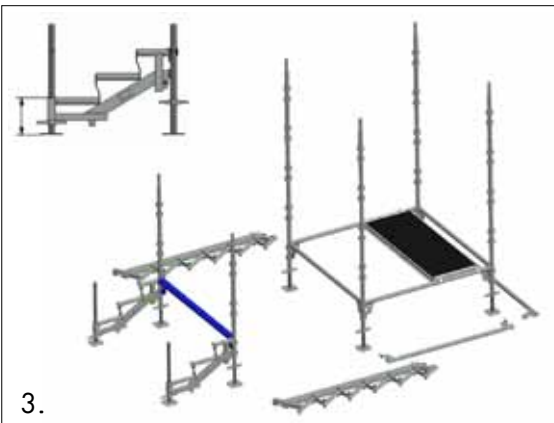
Before erecting the stair tower, check and flatten out the ground. The ground must not be subject to uneven settlement. Its bearing capacity may be improved with the help of sole plates.



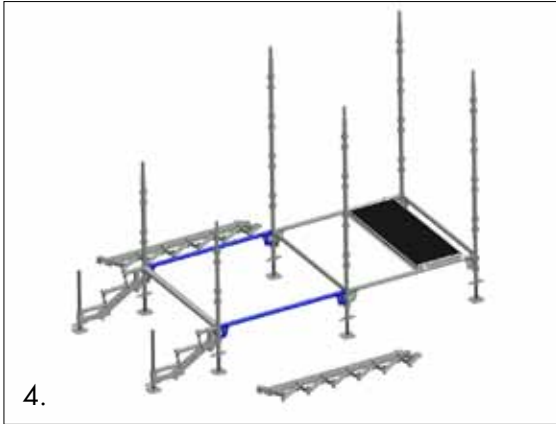
1. Set out base jacks, standards, horizontals and stair stringers as shown for the first tower.



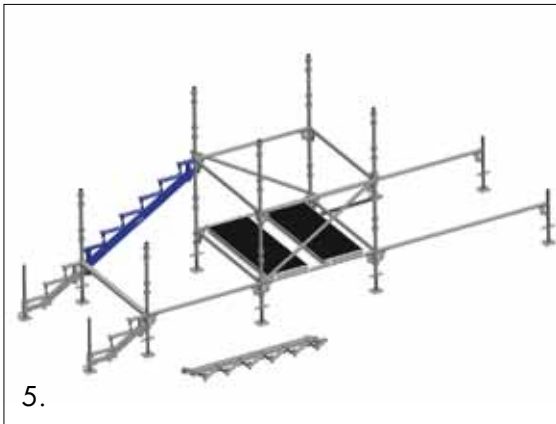
2. Adjust the base jacks to the estimated height not exceeding national standard. Place standards onto base jacks.



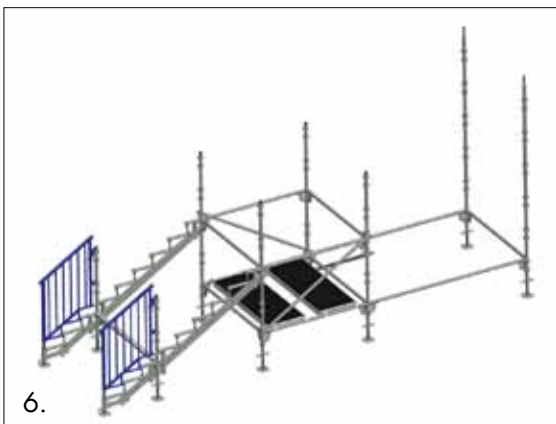
3. Fit the 3 step entrance stair stringers onto the end standards. Adjust the base jack heights to ensure the stair stringers are level and the first step is not too high. Note at top of entrance steps use single tube beam with cover plate.



4. In order to level the towers, fit the temporary ledgers on the lower pockets of the standards and adjust the base jack height.



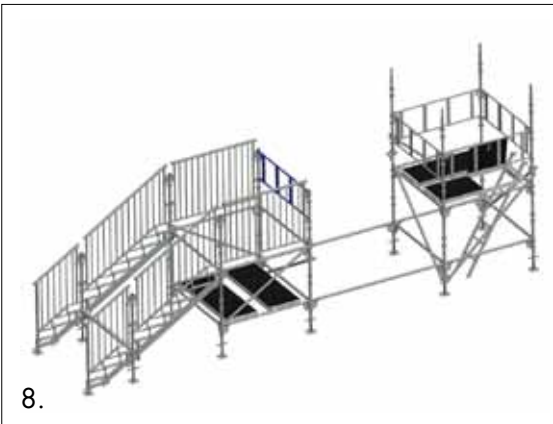
5. Remove temporary ledgers and replace with stair stringer.



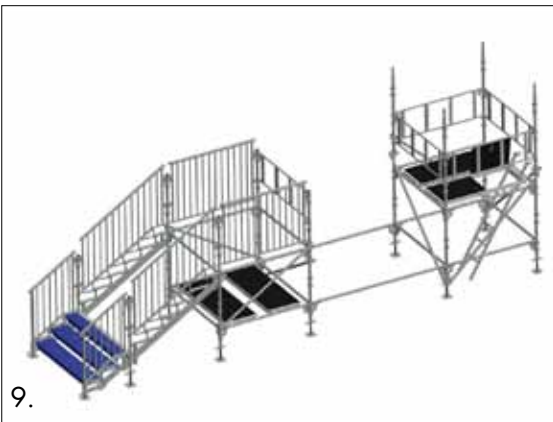
6. Fit the entrance handrails into the pockets on the standard and the base jack. Lock the handrail in the higher position to allow treads to be fitted beneath.



7. Position the handrails in place. Leave in the open position and do not lock.



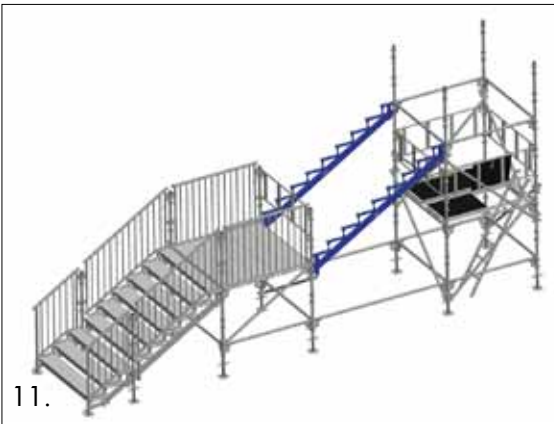
8. Using the Advanced Guardrail tool secure the end guard rail into the standard pockets. Remember to engage locking catches. Repeat to secure the end tower and place decking units and ladder for access.



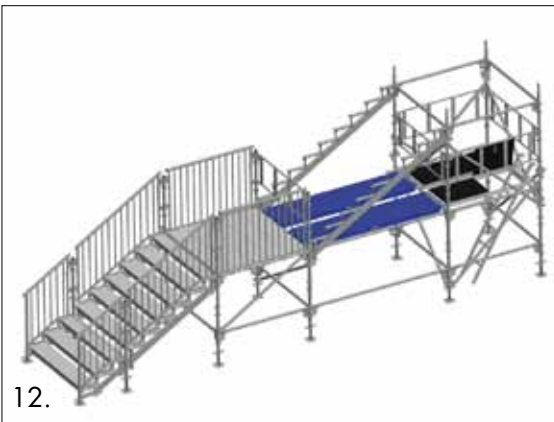
9. Fit stair treads onto the stair stringers.



10. Secure the stair tread with the locking catch.



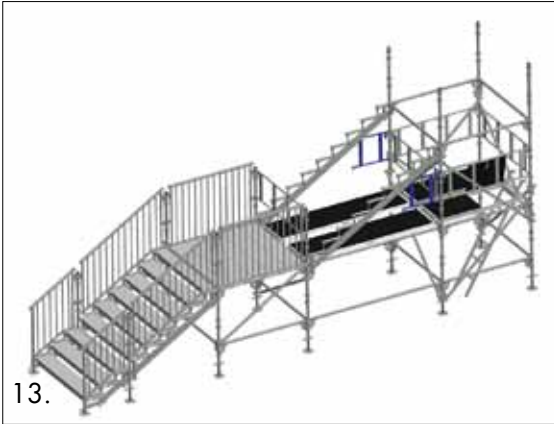
11. Standing on either side of the middle tower, place the stair stringers into the pocket of the standards.



12. In order to safely board out the stair stringers, place a decking unit beneath the stair stringer.

The temporary decking can be lowered 500 mm to the lower pockets if the treads impede fitting.

Please follow Personal Fall Protection Equipment Guidance as shown on page 27.



13. Insert 700mm guard frames to secure the working platform and meet collective fall protection guidelines.



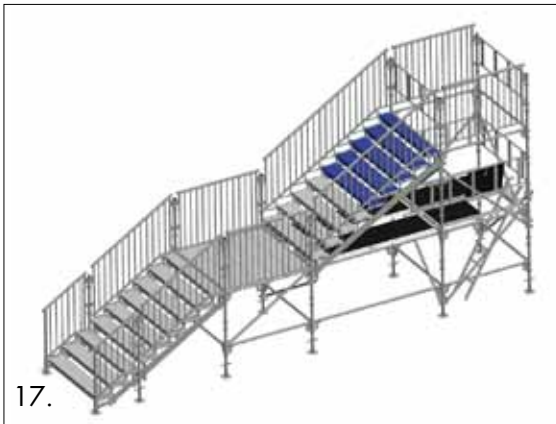
14. Fit the handrails to the standards and leave unlocked and in the open position as before.



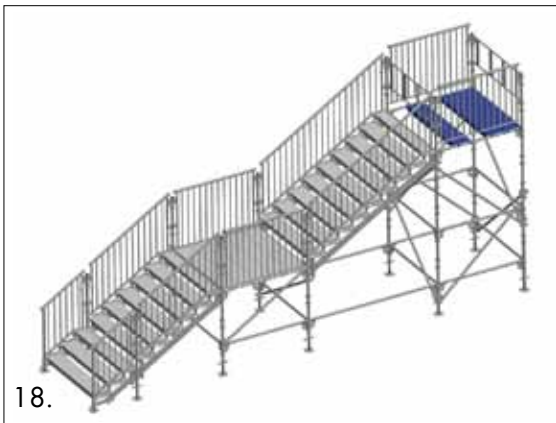
15. Secure the handrails and guard frames to enclose the end tower.



16. Deck the stair stringer half way from the lower tower.



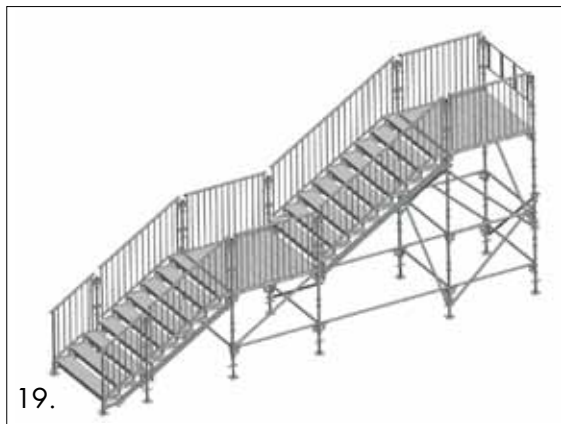
17. Standing on the decking units below fit the remaining treads in place.



18. To deck the landing, slide each stair tread under the guard frame and handrails. Once complete remove the decking units below and change the single tube beam for the single tube beam with cover plate to ensure no trip hazards.

Fully brace each tower.

To continue the stair tower upwards, create another tower and fit the stair stringers as shown previously.



19. Basic tower complete. If the requirements are for decking covered with plywood and/ or GRP sheeting, this should be carried out at this stage.



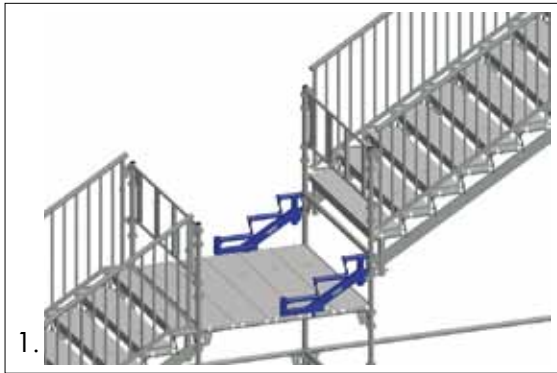
20. ! Once decking is complete all handrails **MUST** be dropped to their lowest position (locking all treads in place). Then all handrails must be fully secured by tightening the screw nuts at each end of the handrails.

When stair tower complete, unlock internal slides, then slide handrail to lock decking in place. Finally lock handrails to internal slides.

Dismantling procedure

- 1/ Dismantle the scaffold from the topmost lift.
- 2/ Start by raising all handrails into the higher position and lock, this will allow planks to be removed from the working platform below.
- 3/ Remove planks from the guardrailed working platform below.
- 4/ Remove all handrails from top lift and stringers.

Using the half landing



1. Ensure the guardrails are in place as a collective fall protection measure. Place the 3 step stair stringer into the pockets of the standards and rest onto the landing.



2. Insert handrail. Leave in the open and unlocked position.



3. Slide the treads under the handrail and secure with the locking catch.



4. Once the stair is complete., remember to lock the handrail into place as shown previously.

Base jacks

The stair tower is erected on base jacks. These are either Ø38 mm or Ø60 mm depending on whether Tripods are used or not.

Standards

Standards of length 3000 or 2000 would normally be incorporated into the tower ensuring that sufficient standard extends above each landing level so that advanced guardrail techniques can be employed.

Tripods

When leg loads exceed the permissible value(s) for standards, tripods should be employed.

The length 3000mm should be avoided apart from the base level. Otherwise, tripods of length 2000mm or smaller should be used. For further information please see the product information sheet for Tripods or contact the HAKI Technical Department.

Bracing and tying in

The stair tower must be braced using vertical diagonal braces to full height on all faces of each 'landing' tower.

The stair tower should be anchored at each standard position horizontally and at a vertical spacing of 4m in height. The first anchor in height must not be fitted more than 4m from ground level.

Permissible loads

The maximum permissible load on stair flights and landings is 6 kN/m².

Horizontal members

The stair tower is erected using ledger beams and/or single tube ledgers with either 1000 or 1500 between lifts, depending on the stair configuration.

Each landing level must be provided with horizontal members on all sides.

The bottom lift must always be fitted at the lowest possible level.

Handrails

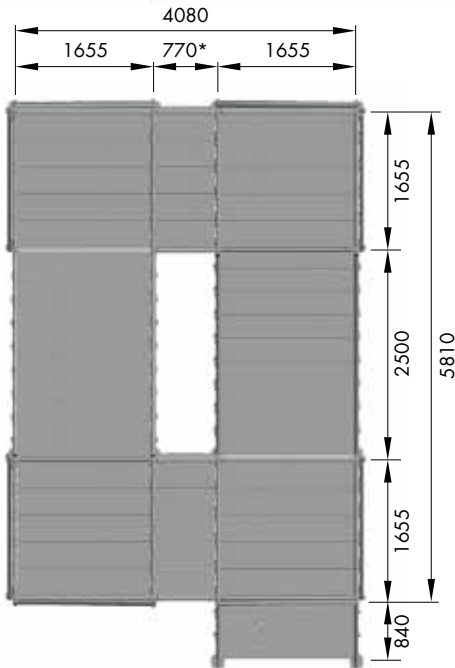
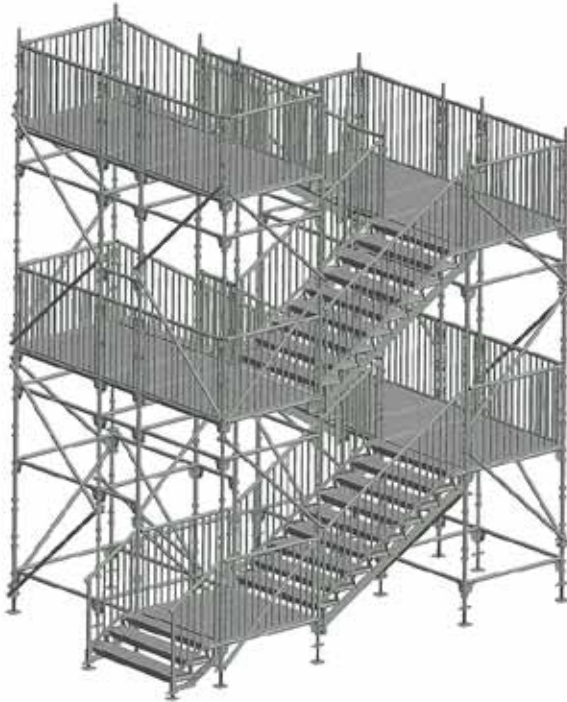
All stair flights and landings must be provided with handrails at all outside edges.

The handrail height must not be less than 1100mm.

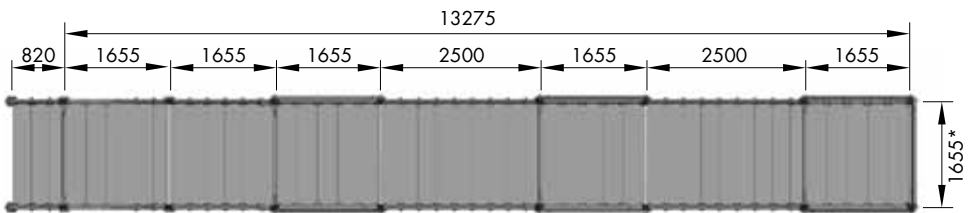
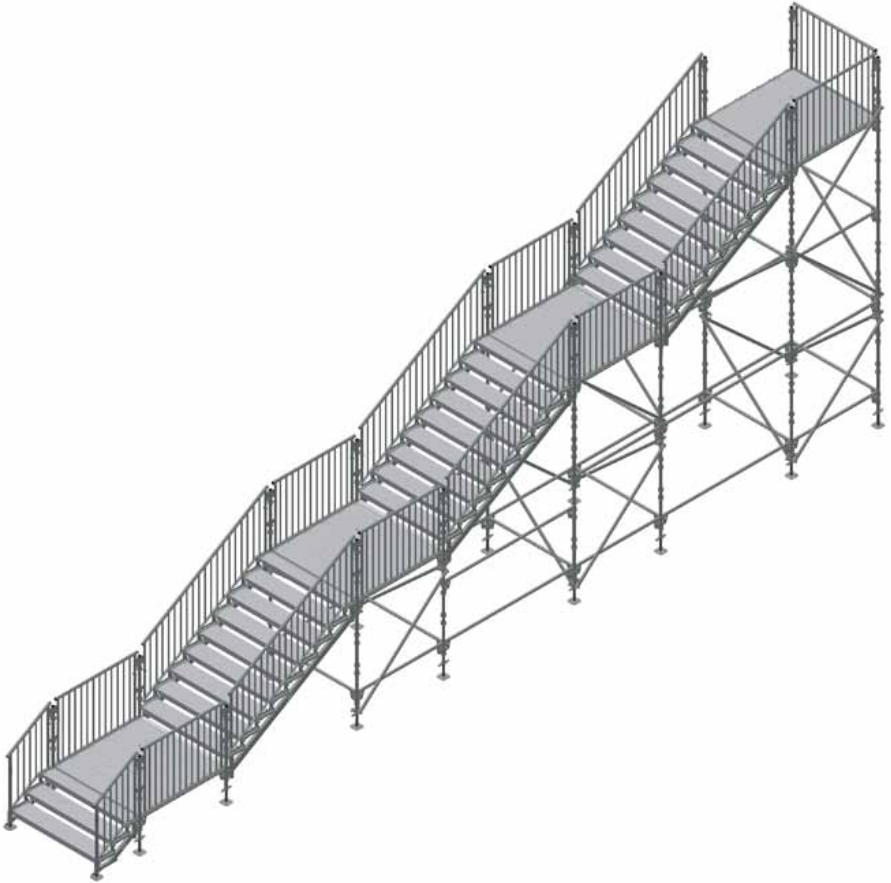
HAKI Public Access Stair with 1.5 m stair flights

Material specification

Art. no.	Name	Weight [kg]	Height to uppermost landing platform [m]		
			6.5	5.0	3.5
2071000	Base jack BS	5.0	18	18	18
7016150	Standard S 1500 G	7.7	8	8	8
7016300	Standard S 3000 G	15.2	32	24	16
7022073	Single tube beam ERB 770 G	3.6	21	17	13
7022161	Single tube beam ERB 1655 G	6.3	72	57	42
7022246	Single tube beam ERB 2500 G	8.9	2	2	2
7104165	Single tube beam ERB 1655 w coverplate G	8.5	4	3	2
7053077	Handrails 1100/770 G	12.5	8	6	4
7053165	Handrails 1100/1655 G	23.0	19	15	11
7122160	Diagonal brace DS 1655	10.1	34	26	18
2153077	AL plank ALP 770x320x90	4.6	20	15	10
2153163	AL plank ALP 1655x320x90	7.9	45	35	25
2153164	AL plank ALP 1655x295x90	7.5	34	26	18
2153165	AL plank ALP 1655x200x90	6.2	5	4	3
7102006	Stair stringer entrance 3 step G	11.1	2	2	2
7102150	Stair stringer 2500x1500 G	34.5	8	6	4
7058004	Stair handrail entrance 3 step G	14.0	2	2	2
7058152	Stair handrail 2500x1500 G	38.5	8	6	4
Total weight [kg]			3465	2716	1965



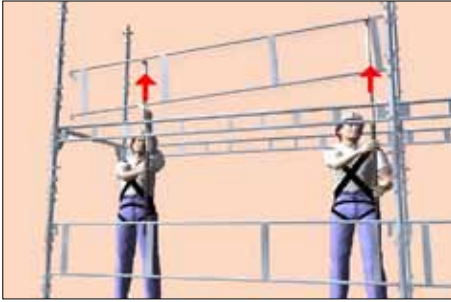
*) Alt. 350 or 1250.



*) Also available in 1250 and 1964



Planning to use Advance Guard Rail



In order to be able to fit guardrails prior to decking, using HAKI's advance guardrail tool or with the aid of other guardrail fitting devices, the external standards must be one metre higher than the next lift. Some alternative methods of erection to achieve this are shown here.

These methods of erection also facilitate the use of temporary guardrails.

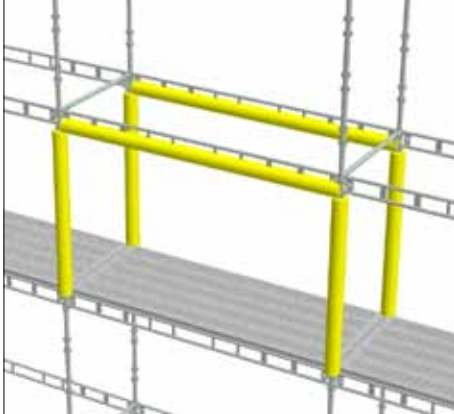
For permissible loads on standards, see page 18.

In other respects, see instructions for the fitting devices in question.

Attachment points for personal fall protection equipment

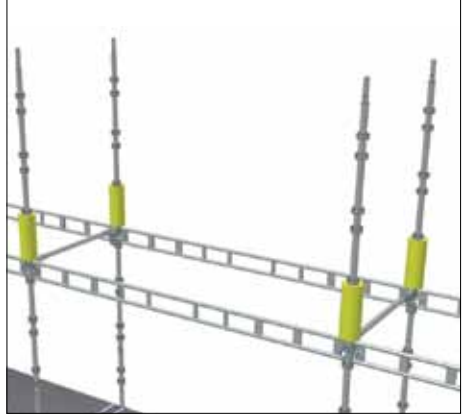
Permissible points of attachment for personal fall protection equipment are as described below.

PLEASE NOTE: Recommendations for points of attachment apply provided that the component in question is otherwise without load and that only one person is attached to the same component at any one time. Components that have been subjected to loading from fall protection equipment must be scrapped and replaced by new material.



Around a standard between two lifts or around the lower tube in a ledger beam fitted between two standards.

Alternatively, around a single-tube beam of maximum length ERB 2050, fitted between two standards.



Around a free standard, but only within 40 cm of the node.

PLEASE NOTE: Not next to a standard joint.

No other points of attachment can be recommended. Fall protection equipment **MUST NOT** be attached to guardrails, brackets and cantilevers, i.e. beams fixed at only one end. Fall protection equipment **MUST NOT** be attached to components that have not been locked into place.

PLEASE NOTE: Use only approved safety equipment.



Notes

SAFETY CHECKLIST

1. Supporting surface checked with regard to load-bearing capacity
2. Distance to wall or similar as short as possible
3. Scaffold aligned correctly horizontally and vertically
4. Components correctly fitted and locked
5. Bracing correctly fitted
6. Anchoring with right number and placing of ties
7. Decking correctly fitted
8. Guardrail with toeboard if drop is two metres or more
9. Suitable means of access to scaffold
10. Scaffold erected for correct class of load



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