



Leaders in the supply of non-mechanical access equipment and builder's products to the construction industrial sectors

Genlok User Guide









Duration: Two Days

Overview:

This course can be delivered in either system products for delegates who already have completed the CISRS part I course. Training will provide key product information on:

- System components
- · Formation of assembly
- Bracing
- Ties
- Safety information
- · Loading capacity

All our successful delegates will receive a certificate of attendance and product endorcement on CISRS scaffolding card.

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Introduction

Genlok is a versatile Modular System Scaffold for all access needs. Fully Galvanised for appearance and performance the system is easily erected to provide a safe efficient working platform with clear working lifts and full handrail.

The key to the system is the 360° node point, which can lock up to four components in one easy hammer blow. Node points are spaced on all standards at 500mm intervals to ensure that correct working lifts can be provided and handrails are positioned at the correct height.

The System has a full range of standards and Ledger sizes to meet all requirements. All components are fully galvanised hot dipped inside and out and manufactured from high yield steel. Fully complying with EN12810 and EN12811 2004.

Genlok can be used with standard 38mm Scaffold board or alternatively with either timber or steel System Battens using the OMEGA components.

Genlok is up to 20% lighter than equivalent tube and fitting scaffolds and is 20% faster to erect. The high strength and rigidity of the system requires no Ledger bracing giving a clear working platform at all levels.

Genlok features a 5 board wide working platform. Additional platform widths can be gained with the use of Inside board transoms and Hop Up brackets to provide 6, 7 and 8 working platform widths in both regularly

supported boards and the Omega Batten System.

Genlok is very versatile, the 360° node point allowing Ledgers and bracing to be located at one level.

Genlok is ideal for circular applications allowing the Ledgers to be rotated around the pocket. Additional components can be supplied to create Staircases, Loading Towers, Mobile Towers and Birdcage scaffolds.

Fast: Components can be fastened with one hammer blow. Lighter with less components. Systemised Modular construction ensures accuracy and speed.

Safe: Fully complying with EN12810 and EN12811 2004. GENLOK has been designed with safety in mind with all components complying with the current standards.

Easy to Erect: By its modular design Genlok automatically sets standard spacing and lift heights so that levelling and plumbing of the scaffold is not required after the base lift.

Cost Effective: Lighter weight, no loose fittings, fully galvanised, compatible with regular scaffold boards, no Ledger bracing, and reduced labour.

The Genlok Locking Procedure

The **key** to the system is the unique node point, which allows horizontal components to be quickly and easily located and secured.

Standards are fitted with a 360° lower cup at 500mm centres in which up to four Ledgers with high tensile blade ends can be located.

The Ledgers are then clamped with a top cup malleable casting, which is rotated using a cam action, and secured with a hammer blow. This provides a positive rigid connection. This locking device makes **Genlok** faster to erect and dismantle than any other system.

Once the initial base lift is levelled, subsequent lifts are automatically placed without the need for additional adjustment.

Without loose components, the system is both economic and robust.

All components are galvanised both inside and out for resistance to corrosion and damage.

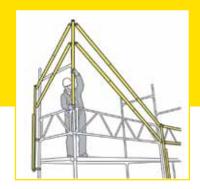








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Genlok Safety Information

Competent, appropriately trained persons should only erect the **Genlok** System Scaffolding. Generation UK's Training division is CISRS approved, and can provide Part 1 and Part 2 System Scaffolding courses.

Genlok fully complies with the structural requirements of BS EN 12810. The guidance enclosed within this manual and supporting calculations have been undertaken in compliance with the requirements of BS EN 12811 and are suitable for use.

This guide applies only to **Genlok**System Scaffolding supplied by
Generation UK Ltd for the use of
access scaffolds. Temporary support
scaffolds, special applications and
structures outside the scope of ths
guide must always be designed and
calculated by a competent engineer in
accordance with the technical
information supplied.

Operatives erecting **Genlok** System Scaffolding have a duty to work within the Health and Safety at Work Act 1974, Construction Regulations Safe Place of Work Act 1996 and the Work at Height Regulations 2005. Erection of **Genlok** should always be undertaken using the most appropriate fall arrest or fall protection systems. At all times

operatives should work safely and mindful of risk of themselves and others. Harnesses should be used at all times in line with current legislation, when erecting, dismantling and working on scaffolds. Four board wide temporary platforms installed from below and handrails should be installed during the erection process. Fully boarded scaffolds with toe boards and double handrails must be installed for end users. Generation also recommend the use of collective fall protection methods as detailed in NASC appendix SG4 where collective protection can be achieved. The use of Scaffold steps and Advanced Guardrail Systems are recommended for use with Genlok. where handrails can be installed in advance of the working lift. Genlok's own Hop-Up bracket

Genlok's own Hop-Up bracket system used internally at handrail level can also provide a temporary platform to enable

advanced handrails to be fitted.



Genlok Erection Sequence

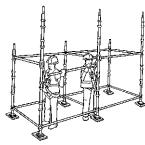




2. Hold the first two standards and locate the Transom as a foot tie. Roughly level the Transom, install the Ledgers, and loosely tighten the top cups, which rotate. Use staggered standards on the out side to allow a handrail

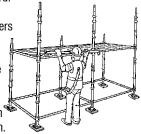


3. Install two further standards, insert Ledgers and Transom and loosely tighten the top cups. Using a spirit level, adjust the jacks in rotation on three sides. Continue and install further bays of foot ties and progressively level.



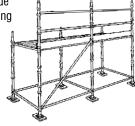
¹4. Install next working level lift using Ledgers and Transoms and tighten top cup with a firm hammer blow. This lift will be self-levelling and require no further adjustment. Fit Intermediate Transoms to support boards at 1.2m centres. (See Board Specification) Boards should be supported at 150mm from end of board.

5. Install Ledgers at 500mm and 1.0m pockets to provide a double handrail. A toe board should be installed on each working platform.



6. A swivel face brace should be installed. As only one blade can be located at each node

point, parallel bracing is used. Face bracing is required to the full height every 8 bays (20m).





Genlok Erection Sequence continued

For use with GENLOK OMEGA Battens

Complete the structure in the same way using OMEGA Transoms, which support steel or timber battens. No Intermediate support is required. A range of inside boards and Hop-Ups are available to widen the scaffold and provide additional platform to the face of the building.

Ledger Bracing and Plan Bracing

The GENLOK node fixing provides an extremely rigid connection and Ledger bracing is not normally required. This allows free walkway through the scaffold. Ledger bracing may be specified by your temporary works designer for tall structures and where increased capacity is required. Plan bracing is not generally required unless specified.

Ties

Ties should be physically installed as soon as practicable. See also notes in the tie pattern section.

Corners and Returns

Rigid corners can be formed using square 1.3m bays. Alternatively, bays on the adjacent elevation can overfly past using Return devices or fixed with regular scaffold double couplers. Care must be taken to ensure continuity of handrail and toe boards. See typical layout in this guide.

Dismantling of Genlok System Scaffold

It is essential that the sequence for dismantling is the same process as for erection in reverse. Care must be taken to ensure that the same safety precautions are applied at all stages of the dismantle. Restraint and protective measures should be used at all times (see page 4). Before dismantling takes place the structure should be inspected for correct erection and identification where adaption or alteration may have taken place. Four board wide temporary platforms should be installed along with temporary handrails during the dismantle.



General Site Safety

All operatives erecting GENLOK have a duty of safety to themselves, others working on or near the scaffold and all persons who may be nearby.

- Before erection of a scaffold all ground and sub base must be inspected. The ground should be level and supported using sole boards.
- Scaffolds must be tied and adequately braced in line with the recommendations in this guide.
- All working platforms require double handrails and toe boards.
 Additional protection such as debris netting, brick guards, sheeting and protection fans may be required.
- Scaffolds should never be overloaded. Be aware of the maximum loads permitted on the specific scaffold. Load should be positioned close to a standard.
- Never add sheeting, hoarding or netting unless the structure has been specifically designed for that purpose.
- Inspect all components before use for suitability and damage.
- Scaffolds are required to be inspected every seven days by the user and records kept.





Genlok Repair & Maintenance

GENLOK System Scaffold is manufactured from high quality, high yield steel and hot dipped galvanised both inside and out for full protection.

GENLOK has a high resistance to damage and is designed in such a way that components are extremely resilient in normal use. Blade ends and locking components are designed with minimum protrusions. The top cup is manufactured as a malleable casting designed to withstand hammer blows as part of the fixing method. Transom and Ledger horizontal members are fitted at each end with drop forged blade ends. Adjustable jacks are manufactured with self-cleaning threads.

In use, however anyone who handles scaffolding components has a duty of care to ensure that they are fit for purpose.

- Material must be inspected before each delivery.
- Erectors must inspect components before erection.
- Damage of any sort must be identified and the item quarantined.
- Damaged equipment should be returned to a competent repairer.

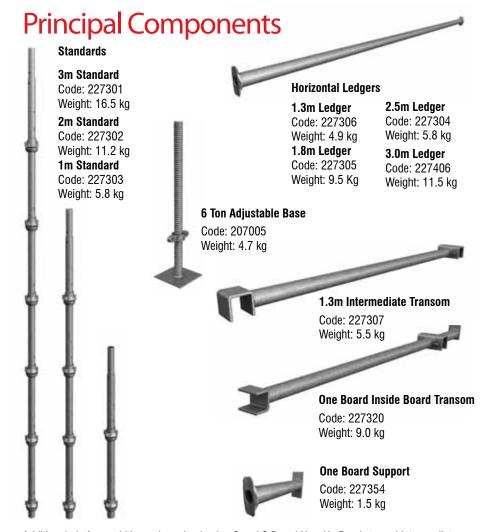
Inspection of the GENLOK System Scaffolding will include:

- All moving components rotate or slide freely.
- · All welds are free of cracks
- Visual inspection for corrosion.
- Inspection for mortar and surface debris.
- Sight along length for bending.
- Ledger ends for distortion.
- · Standards free of internal debris.

- · Jacks free to rotate on all thread.
- Missing components such as Intermediate wedges
- · Negligent or damage by abuse.

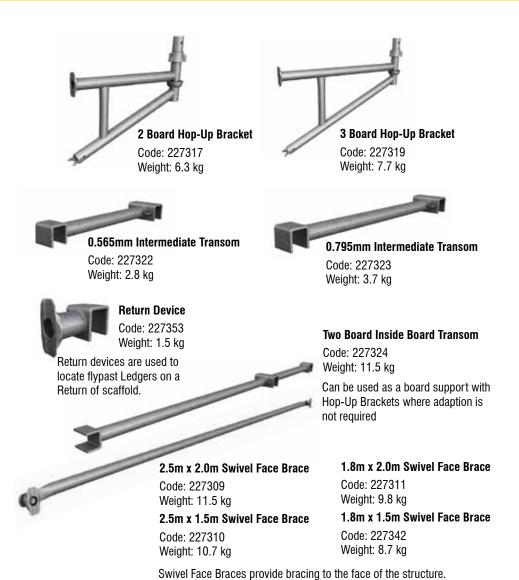
Any equipment found to be damaged, cut, misaligned or seized should not be used, quarantined and be Returned to a holding area for inspection by a competent repairer. In the event of any doubt contact a Generation Hire & sale representative who will be pleased to advise.





Additional platform width can be gained using 2 and 3 Board Hop-Up Brackets and Intermediate support. Ledgers should be used on the Hop-Ups to support Intermediate Transoms.

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They are supplied in sizes to suit by lift sizes.

OMEGA Components

OMEGA Transoms support Steel or Timber Battens without the need for Intermediate support.



All dimensions in Genlok are regarded as centre to centre of Standard. Actual lengths will be 50mm shorter.



OMEGA Components





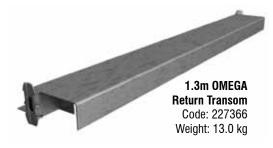


2 Board OMEGA Corner Filler

Code: 227415 Weight: 9.0 kg

3 Board OMEGA Corner Filler

Code: 227360 Weight: 12.5 kg





OMEGA Steel Batten Toe Board Clip Code: 227312 Weight: 1.0 kg

Typical Tubular Layouts

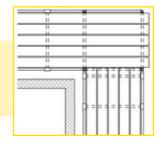
In this section are typical illustrations showing how GENLOK can be utilised to create Returns in the scaffold both externally and internally.

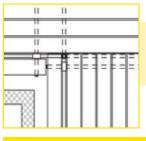
Using inside boards the structure can be set out away from the building. This will allow a larger working area and overcome projections and obstacles on the face of the building. In most applications corners using the Return device are appropriate allowing a longer bay to oversail past the end of the adjacent structure.



Example of flypast method most commonly used to achieve a Return using Tubular Components.

Corners can be achieved using a square 1.3m bay. This is formed using four Standards adjoining each adjacent run. Note the use of Intermediate Transoms to support Boards at the Return end.



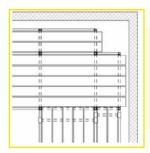


Corner using 1.3m square is shown using One Board Intermediate Transoms to support an extra Board facing the building.

External corners can be achieved using Two Boards inside the scaffold. This is achieved by using Two Board Hop-Up Brackets. Note the use of Two Board Intermediates where Hop-Ups cannot be located.



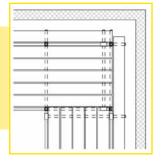




Internal corners can be achieved both with the 1.3m square to accommodate Two Boards inside the structure.

1.3m Intermediate Transoms are used, complimented by 565mm Intermediates to support the Boards between Hop-Ups. Additional hand railing may be required to protect the corner gap.

Internal corners can be achieved using an Inside Board. Note the use of the One Board Intermediate Transoms to allow support of the inside board.



Typical Omega Layouts

The OMEGA system uses dedicated Transoms, which allow the positioning of OMEGA Battens.

These are either steel or timber requiring no Intermediate support. OMEGA Transoms are required at the working lift. Regular tubular Ledgers and Transoms are used for handrails.

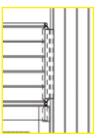


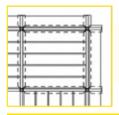
Example of flypast method most commonly used to achieve a Return using OMEGA Components.

Use of the OMEGA Return Transom ensures continuity of the working platform without trip.

Example of flypast method most commonly used to achieve a Return using OMEGA Components.

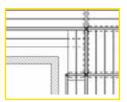
Use of the OMEGA Return Transom ensures continuity of the working platform without trip.





Internal corner shown using 1.3m square method with one inside board. OMEGA One Board Supports are used from the standard point.

External corner using OMEGA Two Board Hop-Ups. Note the use of an additional bay to provide minimum gap between platforms. Where gaps in the platform remain plywood or additional scaffold boards can be placed on the structure





Internal corner using OMEGA 1.3m square with Two Board
Hop-Ups to the building face.
Note the use of the OMEGA corner piece.
This can be filled with plywood cut to size or additional scaffold boards.

<mark>5</mark>



Safe Working Loads User Guide Manual Notes

Safe Working Loading to Components

All Section Capacities are based on unfactored safe working loads derived in accordance with BS EN 12811-1:2003 and BS EN 1993-1-1:2005

WILL B2 EN 15811-1:5003 AUG B2 EN 1883-1-1:5002										
GENLOK Standard										
48.3mm Diameter 3.2mm Wall thickness S355 High Yield Steel	Effective Height 1.000m 1.500m 2.000m 2.500m	Axial Capacity 63.43kN 41.05kN 26.7kN 18.4kN								
GENLOK Tube Transom System										
	Effective Height in Tie Patterns to TG20:08 2.5 x1.3 x 2.0m (A) 3.480m 2.5 x1.3 x 2.0m (B) 3.260m 2.5 x1.3 x 2.0m (D) 3.480m 2.5 x1.3 x 2.0m (E) 3.320m	Axial Capacity 10.2kN 11.5kN 10.2kN 11.1kN								
GENLOK OMEGA Transo	m System									
	Effective Height in Tie Patterns to TG20:08 2.5 x1.3 x 2.0m (A) 3.220m 2.5 x1.3 x 2.0m (B) 3.010m 2.5 x1.3 x 2.0m (D) 3.220m 2.5 x1.3 x 2.0m (E) 3.040m	Axial Capacity 11.9kN 13.3kN 11.8kN 13.0kN								
Spigots										
	Tensile Capacity @ Spigot Moment Capacity @ Spigot	10kN 1.328kNm								
Base Jack										
	Axial Capacity 60kN									
GENLOK Brace 3.2mm V	Vall 48.3mm Diameter thickness S355 Steel									
	Axial Capacity 6.8kN (M)									
GENLOK Ledger & Tubul	ar Transom									
	Moment Capacity Shear Capacity Ledger/Transom Moving Down Ledger/Transom Moving Up Stiffness of Joint	1.405kNm 35.82kN 1.21kNm 1.46kNm 73.15kNm/Rad								

Safe Working Loads User Guide Manual Notes

Tubular Transom Working Platform Component Checks.

The standard arrangement for a 2.5m bay using two intermediate transoms positioned at third points and the 1.8m bay using a single central intermediate transom have been checked against the load class requirements of BS EN12811. The working platform components have been found to pass all checks up to and including **Load Class 4** of the code, the equivalent of a 3kN/m2 Uniformly Distributed Load.

The checks have also been undertaken for 1, 2 and 3 internal board arrangement which have also passed the checks up to **Load Class 4**. Using internal transoms and hop up brackets to the standard positions.

GENLOK OMEGA Transom		
Moment Capacity	1.43	kNm
Shear Capacity	35.16	kN
Ledger/Transom Moving Down	0.88	kNm
Ledger/Transom Moving Up	0.92	kNm
Stiffness of Joint	74.8	kNm/Rad

Genlok Omega Transom Working Platform Component Checks.

The Standard arrangement of 5 No timber or steel battens to a 1.3m wide platform width between the standards has been checked against the load class requirements of BS EN12811 for both the 2.5m and 1.8m bay lengths. The working platform components have been found to pass all checks up to and including **Load Class 4** of the code, the equivalent of a 3kN/m2 Uniformly Distributed Load.

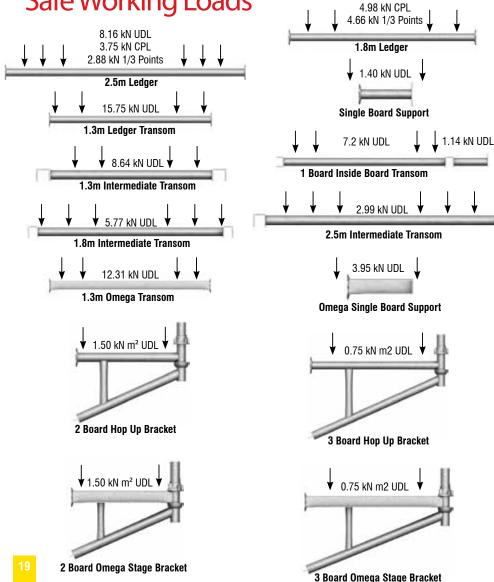
The checks have also been undertaken for 1, 2 and 3 internal board arrangement which have also passed the checks up to Load Class 4. Using internal omega transoms and hop up brackets to the standard positions.

GENLOK OMEGA BATTEN SA	FE WORKING L	OADS UDL		
Timber Batten	2.5m	225mm x 63mm	LC4	6.9kN/m2
Timber Batten	1.8m	225mm x 63mm	LC6	13.6kN/m2
Timber Batten	1.3m	225mm x 63mm	LC6	15kN/m2*
Omega Steel Stage	2.5m	225mm x 63mm	LC6	13.6kN/m2
Omega Steel Stage	1.8m	225mm x 63mm	LC6	15kN/m2*
Omega Steel Stage	1.3m	225mm x 63mm	LC6	15kN/m2*
Omega (Wider) Steel Stage	2.5m	238mm x 57mm	LC6	15kN/m2*
Omega (Wider) Steel Stage	1.8m	238mm x 57mm	LC6	15kN/m2*
Omega (Wider) Steel Stage	1.3m	238mm x 57mm	LC6	15kN/m2*

^{*} UDL exceeds 15kN/m2 Refer to Technical Department

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Safe Working Loads

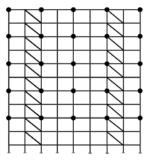


12.42 kN UDL

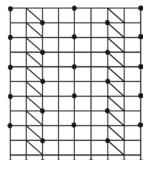
Bracing and Tying In

Diagonal Face Bracing:

All scaffolds require a certain amount of diagonal face bracing to eliminate any tendency or the scaffold to distort or sway. Face bracing is required on all GENLOK scaffolding structures in one bay in every 20 metres maximum, i.e. every eighth bay, for the full height of the scaffold. For a scaffold more than 10 metres (4 bays) long, a minimum of 2 bays should be face braced. Bracing the end bays should be avoided if possible.



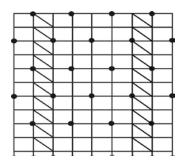
(A) Lines of Ties on Alternate Lifts



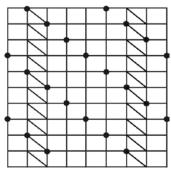
(D) Lines of Ties on Every Lift

Ledger and Plan Bracing:

GENLOK scaffolding structures do not generally require Ledger or plan bracing. Exceptions occur where ties cannot be placed in the correct position, where ties have to be removed for some reason, or in scaffolds, which extend above the building or in the loaded platforms of some tie arrangements.



(B) Lines of Ties on Alternate Lifts



(E) Lines of Ties on Every Lift



Maximum Heights

Maximum Heights and Tying-in

Pattern Requirements

The maximum height to which a GENLOK Scaffold may be erected is dependent upon a number of factors, the most important of which are:

- **1.** The vertical and horizontal distances between tied points on a standard.
- 2. The lift height.
- 3. Wind loading.
- The Vertical loadings in the legs due to self-weight and the Working Platform Loading.
- **5.** Whether or not the cantilever platforms are used.
- 6. Whether or not the foot ties are used.
- 7. The inclusion of Debris Netting or Sheeting to the Scaffold.

The parameters detailed in this manual are based on calculations and the results of testing.

IMPORTANT

The maximum height given for scaffolds in the following tables has been limited to 30 metres, incorporating a maximum of 2 working lifts. Scaffolds above 30 metres and/or incorporating more than 2 working lifts can be constructed, but special consideration should be given to their design.

General Notes

These tables should be read in conjunction with the Safe working loads Axial capacities on page 18 of this user quide which illustrates the permissible leg loads for the respective tie patterns as well as defining the tie patterns themselves. The tie patterns considered are those illustrated in TG20:13 under arrangements A. B. D and E. The proposal within TG20:13 for providing guidance scaffold arrangements with internal lightly loaded boards with an intensity of 0.75kN/m2 have also been incorporated into the tables to allow correlation between the quidance in that document as an alternative to tube and fitting access scaffolds using this loading criteria. The tabulated values are for scaffolds having no working lifts above the last tied level. For scaffolds having working platforms above the last tied level, Ledger bracing must be used in the lifts. Given the complexity of the wind loading code, these tables have had wind loading applied with requirements of BS EN 12811-1:2003. Your temporary works engineer should be consulted for suitable wind loading design on any structures in excess of 10 metres high or in extreme positions, such as the top of a hill, exposed landscapes, sea views or in-between closely spaced buildings for further guidance.

General Notes Continued

The safe height tables and section capacities contained within the User Guide are based upon live loading from the intended use only. Additional loading may accrue on the working platforms or components as a consequence of atmospheric precipitations such as ice, snow, sand or dust. The working processes may also cause debris such a sand, grit or demolition debris to accumulate on the working platform of components which will increase the live loading above that allowed for within the live loading. Where this is seen to occur or is know will occur further guidance should be sought from the Generation UK Ltd Technical Services Department which may result in a down grading of the Load Class for the scaffold.

All access scaffolds will impose forces upon the structure they are fixed to through their ties. An assessment should be initially made regarding the ability of the structure to sustain the loads either globally, due to its own instability, or locally as a result of defective finishes. Loadings from the ties into the supporting structure are dependant upon the live loading to the working platforms, the height of the scaffold and in the majority of cases the wind loading imposed upon the scaffold and its cladding status. For guidance with regards to the design of ties into building facades we would refer you to Section 7 of TG20:13 or to the Generation (UK) Ltd Technical Services Department

FULLY LOADED INSIDE BOARDS (BS EN 12811)												
		COUN	TOWN									
	Ties at Alte	rnate Lifts	Every Lift	Ties at Alt	ternate Lift	Ties at E	very Lift					
S	Α	В	D	Е	Α	В	D	Ε				
24	10	30	12	28	10	30	12	28				
24	10	30	10	28	10	30	12	28				
24	16	30	18	30	16	30	18	30				
24	16	30	18	30	16	30	18	30				
24	\	16	\	14	\	16	\	14				
24	\	10	\	6	\	10	\	6				
24	12	30	10	28	12	30	10	28				
24	10	30	10	28	8	30	10	28				
	24 24 24 24 24 24	Ties at Alter S A 24 10 24 10 24 16 24 16 24 \ 24 \ 24 \ 24 \ 24 12	COUNTIES at Alternate Lifts S A B 24 10 30 24 10 30 24 16 30 24 16 30 24 \ 16 30 24 \ 16 30 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10 24 \ 10	COUNTRY Ties at Alternate Lifts S A B D 24 10 30 12 24 10 30 10 24 16 30 18 24 16 30 18 24 16 30 18 24 16 30 18 24 16 30 18 24 16 30 18 24 16 30 18	COUNTRY Ties at Alternate Lifts Ties at Every Lift S A B D E 24 10 30 12 28 24 10 30 10 28 24 16 30 18 30 24 16 30 18 30 24 \ 16 \ 14 24 \ 10 \ 6 24 12 30 10 28	COUNTRY Ties at Alternate Lifts Ties at Every Lift Ties at Alternate S A B D E A 24 10 30 12 28 10 24 10 30 10 28 10 24 16 30 18 30 16 24 16 30 18 30 16 24 \ 16 \ 14 \ 24 \ 10 \ 6 \ 24 12 30 10 28 12	COUNTRY TO Ties at Alternate Lifts Ties at Every Lift Ties at Alternate Lifts S A B D E A B 24 10 30 12 28 10 30 24 10 30 10 28 10 30 24 16 30 18 30 16 30 24 16 30 18 30 16 30 24 1 16 14 16 16 10 24 1 10 6 12 30 10 28 12 30	COUNTRY TOWN Ties at Alternate Lifts Ties at Every Lift Ties at Alternate Lift Ties at Every Lift S A B D E A B D 24 10 30 12 28 10 30 12 24 10 30 10 28 10 30 12 24 16 30 18 30 16 30 18 24 16 30 18 30 16 30 18 24 \ 16 \ 14 \ 16 \ 24 \ 10 \ 6 \ 10 \ 24 12 30 10 28 12 30 10				

GENLOK Tube Transom, Part Boarded, Unbraced, Unclad, 30m Max

<mark>21</mark>



	FULLY LOADED INSIDE BOARDS (BS EN 12811)												
			COUN	TOWN									
		Ties at Alte	rnate Lifts	Ties at	Every Lift	Ties at A	Iternate Lifts	Ties at	Every Lift				
Designation	S	Α	В	D	Е	Α	В	D	Е				
3-5-0	24	12	30	14	30	12	30	14	30				
3-5-1	24	12	30	14	30	12	30	14	30				
3-5-0s	24	18	30	18	30	18	30	18	30				
3-5-1s	24	18	30	18	30	18	30	18	30				
4-5-0	24	8	24	10	22	18	24	10	22				
4-5-1	24	\	16	\	14	8	16	\	14				
4-5-0s	24	16	30	18	30	16	30	18	30				
4-5-1s	24	16	30	18	30	16	30	18	30				

GENLOK OMEGA Transom, Part Boarded, Unbraced, Unclad, 30m Max

Maximum Heights and Tying-in Pattern Requirements Continued

This User Guide utilises wind loading in the preparation of its safe working height tables for access scaffold. The above tables are limited to "S" values of 24 but further tables are available from Generation UK Ltd technical services for values between 20 and 40. Where localised conditions result in "S" values outside of these parameters the wind velocity pressures will either be lower than or exceed those utilised within the calculations from which the tables are derived. Scaffolds located to the edges of cliffs or escarpments, in coastal locations or to tall structures surrounded by other tall structures which may cause funnelling of the wind pressure are all susceptible to significant increases in wind pressure due to local effects. In these instances it is recommended that advice is sought from the Generation UK Ltd Technical Services Department.

Equipment required for tying in

Additional components outside the systems standard component set may be required to enable use in accordance with this User Guide. These will normally constitute loose tubes to EN39 and fittings to EN74 which can be supplied by Generation UK Ltd.

Foundations and Ground Condition

The foundations for a scaffold should be adequate to carry and disperse the load imposed both locally at each standard and, in general, to carry the whole weight of the scaffold.

The responsibility for the adequacy of the foundations should be established and approved prior to erection. The client for the scaffold and / or the contractor may need to be consulted.

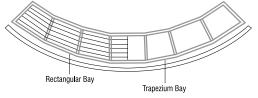
The foundation for a scaffold should be maintained in an adequate condition during the life of the scaffold. Regular inspection procedures must be provided and use suspended if there is found to be any loss of support.

Circular Access

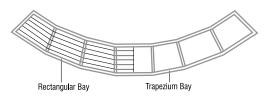
By virtue of the unique 360° cup, GENLOK is ideally suited to form circular or curved structures. By using varying sizes of Ledger, both internal and external radii can be achieved.

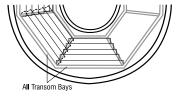
Curved structures can be created by using a mix of rectangular (square) bays and trapezium bays. Intermediate trapezium bays should be made with short Ledgers to ensure boards are not spanned beyond their support limit. Boards should oversail by at least 150mm. In Rectangular bays Intermediate Transoms can be used to support boards every 1.2m. For OMEGA circular structures, rectangular bays can consist of standard size battens, 1.3m

wide. In the curved position, it will not be possible to fit Ledger unless they are at 90° to each other. In this case, the outer Ledger can be positioned as double handrails. An internal Ledger can be lowered by 0.5m, as it will not be supporting an Intermediate Transom. Care should be taken to ensure that scaffold boards are cut appropriate to the curve and no traps are encountered. Ties should always be used and positioned within 300mm of a secure node point. Any non-standard structure should always be designed by a competent person.

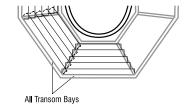


Internal Curve using Rectangular and Trapezium Bays





Internal using Trapezium Bays only



For Trapezium bays and for use in special structures a range of alternative Ledgers are available.

0.8m Ledger	1.2m Ledger	0.9m Ledger	1.0m Ledger	1.6m Ledger
Code: 227330	Code: 227314	Code: 227332	Code: 227331	Code: 227341

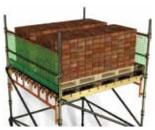
<mark>.3</mark>



Loading Tower Options

GENLOK loading tower options 1,2&3 are designed to comply with BSEN12811 and TG20:13 & to support the mechanical loading of typical palletised materials.

All have Safe Working Load S.W.L. of 12.5kN/m2 uniformly distributed or 10kN/m2 plus 25% mechanical loading TG20:13. Notice of safe working load must be attached to the front face of the loading bay gate. All loads and method of loading must be known prior to loading TG20:13.



Four No. 10kN (1 Tonne) 1.2mx0.8m large pallets (Gates omitted for clarity)



Six No. 8.5kN (0.85 Tonne) 0.8mx0.8m Small pallets (Gates omitted for clarity)

Loading tower option 4 is compliant with BSEN12811 and TG20:13 to support palletised materials, not exceeding uniformly distributed load of 7.3kN/m2 for manual loading or 5.5kN/m2 plus 25% for mechanical loading TG20:13. Notice of safe working load must be attached to the front face of the loading bay gate. All loads and method of loading must be known prior to loading TG20:13.

GENLOK Training is available at our training centre www.generationtraining.co.uk Erection Guide is available on our web site www.generationhireandsale.co.uk or through the branch network on 0800 783 8376

When erecting Loading Towers, consideration needs to be given to the use of harnesses and if required collective protection methods as noted in NASC guidance note SG4:10. Temporary platforms will be required at each lift level to safely erect these towers.

GENLOK loading bays incorporate a specially strengthened platform designed to support heavy palletised materials. It features an up and over, 'stay safe arm' gate which keeps the operator a safe distance from the platform edge. As the gate is raised, a safety barrier is automatically lowered in front of the operator maintaining constant edge protection.

Generation Hire and Sale are able to offer a wide range of Loading Bay Gates to suit all applications. Details are available from the web site www.generationhireandsale.co.uk or through the branch network on 0800 783 8376.

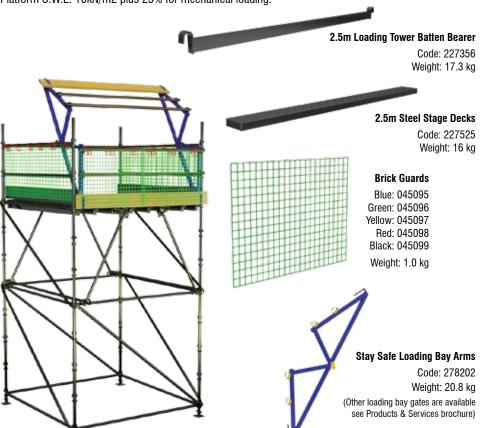
Loading Platform - Option 1

GENLOK 2.5x2.5m bay using Batten bearers and Knee bracing. This arrangement can be used to create loading towers for TG20:13 compliance.

Bricklaying loading tower 1.5m or 2.0m progressive lifts or a loading platform available to every other scaffold lift.

Platform S.W.L. 12.5kN/m2 for manual loading.

Platform S.W.L. 10kN/m2 plus 25% for mechanical loading.





Option 1 Erection Sequence

GENLOK can be used to create loading towers for the purpose of distribution of palletised materials to the working level by site forklift or loader. The towers can be built progressively with the working lift to match bricklayer's progress or with a loading platform at every other lift. Only one platform may be loaded at any time. Made from a square 2.5m bay and constructed using 1.5m or 2m lifts tied to the main structure at every leg and every lift. Platforms may be over boarded to cover all gaps and allow wheels or skates to be used.

Loading towers and their loading platforms must be strengthened, stabilised and safe to operate. The correct use of additional components and erection guidance are detailed below.

Stay Safe Arm

Links the loading bay gate to the GENLOK structure at the top guardrail, allowing it to be swung into the overhead position whilst automatically lowering the temporary protection barrier.

Stay Safe Arm loading bay gates comply with the working at height guidance SG4:10.

Guardrails

Conventional scaffold tubes and timber toe boards span between the stay safe arms to create the inner and outer safety barrier and operating bars. The front barrier has brick guard mesh as an alternative to a fixed mesh panel, allowing loading bays of different widths.

MECHANICAL S.W.L. 1000kg/m2 6.25 TONNE TOTAL LOAD MANUAL S.W.L. 1250kg/m2 7.8 TONNE TOTAL LOAD

Notice of Safe Working Load should be attached to the front of the Loading Bay Gate.

Base out using adjustable bases with alternating 2m and 3m standards using 4no. 2.5m Genlok ledgers to complete the kicker lift. Ensure standards are vertical and ledgers are horizontal. Check the bay for square.

If the jack extension is greater than 300mm then plan bracing should be added to the kicker lift.



Construction of the first lift is done from below whilst standing on the ground. Genlok 2.5m ledgers are added at the required lift height. Face bracing to suit the lift height is also added at this stage.

For maximum height the first lift face bracing must be tube and fittings.

Further standards may need to be added remembering to alternate between 2m and 3m standards to stagger the joints.

If the first lift is not a loading platform then a temporary platform will need to be added to aid construction of the loading platform above.

Ledgers at 1m height are added to support a scaffold step. This will allow 4no. more ledgers to be added at 3m level to form 1m high guard rails to the temporary platform. A 2.5m intermediate transom is added to support scaffold boards.





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Working from below add 10no. 3m long scaffold boards to form the temporary platform. Gaining access to the temporary platform is by either,

- an existing independent scaffold
- or ladders.

The required face braces can now be added.



4.

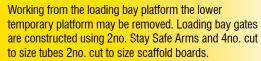
Working from the temporary platform, add the ledgers to the next lift. Then, install ledgers to form 1m and 0.5m high guardrails. Remove 2no. outer boards to enable over slung tubes to be installed using class B couplers hard against the standards.

Under slung tubes fixed on band and plate couplers at 825mm centres. Knee brace tubes must be added to support the ledgers front and back using class B couplers to under/over slung tubes. A further 4no. class B supplementary fittings must be added 2no. either end of the knee braces.





Still working from the temporary platform add 8no.
Batten Bearers equally spaced at 345mm centres to support 10no. Omega steel stage decks at loading platform level.



Ensure singles guardrails to independent scaffold remain in place at non-boarded lifts.





The loading bay gates are coupled to the top guardrails and the platform finished with toe boards and brick guards to suit.

Plan bracing or wing bracing must be added to every other lift to stabilise outer legs. Ensure notice of S.W.L is fitted to the gate prior to use.

The rear 1m high guardrail will be removed for access when platform is being used.

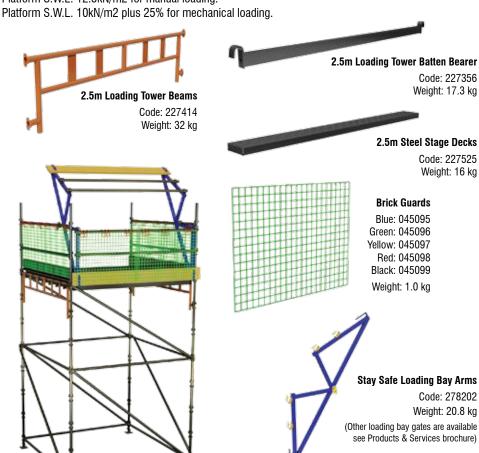


Loading Platform - Option 2

GENLOK 2.5x2.5m bay using Batten bearers and Loading tower beams. This arrangement can be used to create loading towers for TG20:13 compliance.

Loading platform available to every scaffold lift (Only one platform to be loaded at any time).

Platform S.W.L. 12.5kN/m2 for manual loading.



Option 2 Erection Sequence

GENLOK can be used to create loading towers for the purpose of distribution of palletised materials to the working level by site forklift or loader. The tower can be built progressively with the working lift to match bricklayer's progress or with a loading platform at every lift. Only one platform may be loaded at any time. Made from a square 2.5m bay and constructed using 1.5m or 2m lifts tied to the main structure at every leg and every lift. Platforms may be over boarded to cover all gaps and allow wheels or skates to be used.

Stay Safe Arm

Links the loading bay gate to the GENLOK structure at the top guardrail, allowing it to be swung into the overhead position whilst automatically lowering the temporary protection barrier.

Stay Safe Arm loading bay gates comply with the working at height guidance SG4:10.

Guardrails

Conventional scaffold tubes and timber toe boards span between the stay safe arms to create the inner and outer safety barrier and operating bars. The front barrier has brick guard mesh as an alternative to a fixed mesh panel, allowing loading bays of different widths.

> **MECHANICAL** S.W.L. 1000kg/m2 6.25 TONNE TOTAL LOAD

MANUAL S.W.L. 1250kg/m2 7.8 TONNE TOTAL LOAD

Notice of Safe Working Load should be attached to the front of the Loading Bay Gate.



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Construction up to the loading platform is the same as Option 1. The following details describe the loading platform construction for Option 2.



Loading tower beams are designed to fit a standard 2.5m Genlok bay as part of the system. Each beam should be fixed into 4no. Genlok standard cups and locked into position.



ledgers and 2no. loading tower beams to form the

main support for the loading platform. Next, install

a scaffold step where required.

ledgers to form 1m and 0.5m high guardrails, using



Working from the loading bay platform the lower temporary platform may be removed. The loading bay gates are constructed using 2no. Stay Safe Arms and 4no. cut to size tubes 2no, cut to size scaffold boards.



Still working from the temporary platform add 8no. Batten Bearers equally spaced at 345mm centres to support 10no. Omega steel stage decks at loading platform level.



The loading bay gates are coupled to the top guardrails and the platform finished with toe boards and brick guards to suit. Plan bracing or wing bracing must be added to platform and every other lift to stabilise outer legs. Ensure notice of S.W.L is fitted to the gate prior to use. The rear 1m high guardrail will be removed for access when platform is being used.



Loading Platform - Option 3

GENLOK 2.6x2.5m bay using Intermediate transoms and Loading tower beams. This arrangement can be used to create loading towers for TG20:13 compliance.

Loading platform available to every other scaffold lift (Only one platform to be loaded at any time).

Platform S.W.L. 12.5kN/m2 for manual loading.

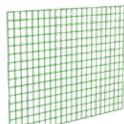
Platform S.W.L. 10kN/m2 plus 25% for mechanical loading.



Code: 227307 Weight: 5.5 kg

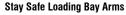


Steel Code: 037010 Weight: 17 kg **Timber** Code: 034005 Weight: 14.6 kg



Brick Guards

Blue: 045095 Green: 045096 Yellow: 045097 Red: 045098 Black: 045099 Weight: 1.0 kg



Code: 278202 Weight: 20.8 kg

(Other loading bay gates are available see Products & Services brochure)





Option 3 Erection Sequence

GENLOK can be used to create loading towers for the purpose of distribution of palletised materials to the working level by site forklift or loader. The tower can be built progressively with the working lift to match bricklayer's progress or with a loading platform at every other lift. Only one platform may be loaded at any time. Made from a $2.5 \, \text{m} \times 2.6 \, \text{m} \times (1.3 + 1.3)$ bay and constructed using $1.5 \, \text{m}$ or $2 \, \text{m}$ lifts tied to the main structure at every leg and every lift. Platforms may be over boarded to cover all gaps and allow wheels or skates to be used.

Stay Safe Arm

Links the panel to the GENLOK structure, allowing it to be swung into the overhead position whilst automatically lowering the temporary protection barrier.

Guardrails

Conventional scaffold tubes and timber toe boards span between the stay safe arms to create the inner and outer safety barrier and operating bars. The front barrier has brick guard mesh as an alternative to a fixed mesh panel, allowing loading bays of different widths.



MANUAL S.W.L. 1250kg/m2 7.8 TONNE TOTAL LOAD

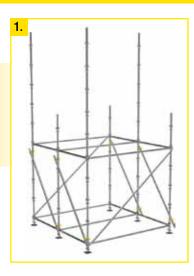
Notice of Safe Working Load should be attached to the front of the Loading Bay Gate.



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Construction up to the loading platform is the similar to Option 1. The base set out differs using a 6no. standards arranged with 3no. 2.5m ledgers in the opening orientation and 4no. 1.3m ledgers to create a 2.6mx2.5m base. The following details describe the loading platform construction for Option 3.





Working from the temporary platform, add the 4no. ledgers and 3no. loading tower beams to form the main support for the loading platform. Next, install ledgers to form 1m and 0.5m high guardrails, using a scaffold step where required.

Loading tower beams are designed to fit a standard 2.5m Genlok bay as part of the system. Each beam should be fixed into 4no. Genlok standard cups and locked into position.



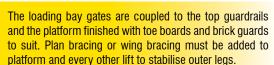
Still working from the temporary platform add 4no. intermediate transoms equally spaced at 800mm centres approx. and offset to each other. This will support 10no. 3m or cut to size scaffold boards at loading platform level.





Working from the loading bay platform the lower temporary platform may be removed. Ensure single guardrails to independent scaffold remain in place at non-boarded lifts.

The loading bay gates are constructed using 2no. Stay Safe Arms and 4no. cut to size tubes 2no. cut to size scaffold boards.



Ensure notice of S.W.L is fitted to the gate prior to use. The rear 1m high guardrail will be removed for access when platform is being used.





Loading Platform - Option 4

GENLOK 2.6x2.5m bay using 1.3m Omega transoms and Omega steel stage decks. This arrangement can be used to create loading towers for TG20:13 compliance.

Loading platform available to every scaffold lift (Only one platform to be loaded at any time).

Platform S.W.L. 7.3kN/m2 for manual loading.

Platform S.W.L. 5.5kN/m2 plus 25% for mechanical loading.



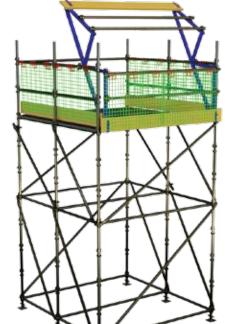
Weight: 7.2 kg





Brick Guards

Blue: 045095 Green: 045096 Yellow: 045097 Red: 045098 Black: 045099 Weight: 1.0 kg



Stay Safe Loading Bay Arms

Code: 278202 Weight: 20.8 kg

(Other loading bay gates are available see Products & Services brochure)



Option 4 Erection Sequence

GENLOK can be used to create loading towers for the purpose of distribution of palletised materials to the working level by site forklift or loader. The tower can be built progressively with the working lift to match bricklayer's progress or with a loading platform at every lift. Only one platform may be loaded at any time. Made from a 2.5m x 2.6m (1.3+1.3) bays and constructed using 1.5m or 2m lifts tied to the main structure at every leg and every lift. Platforms may be over boarded to cover all gaps and allow wheels or skates to be used.

Stay safe arm

Links the panel to the GENLOK structure, allowing it to be swung into the overhead position whilst automatically lowering the temporary protection barrier.

Guardrails

Conventional scaffold tubes and timber toe boards span between the stay safe arms to create the inner and outer safety barrier and operating bars. The front barrier has brick guard mesh as an alternative to a fixed mesh panel, allowing loading bays of different widths.



MANUAL S.W.L. 740kg/m2 4.8 TONNE TOTAL LOAD

Notice of Safe Working Load should be attached to the front of the Loading Bay Gate.



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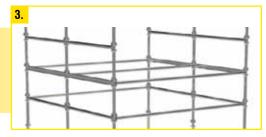
Construction up to the loading platform is similar to Option 1. The base set out differs using a 6no. standards arranged with 3no. 2.5m ledgers in the opening orientation and 4no. 1.3m ledgers to create a 2.6mx2.5m base.

The following details describe the loading platform construction for Option 4.



Working from the temporary platform, add 3no. 2.5m ledgers and 4no. 1.3m Omega transoms to form the main support for the loading platform. Next, install ledgers to form 1m and 0.5m high guardrails, using a scaffold step where required.

The 4no. 1.3m Omega transoms support the Omega steel stage decks as part of the Genlok system they are locked in position into standard Genlok cups. This creates a quick and easy loading platform construction.



Still working from the temporary platform add 4no. tube and fittings braces to the 1.3m bays, also add appropriate face braces to the 2.5m bays.

The 10no. 2.5m Omega steel stage decks can be added to form the loading platform.





Working from the loading bay platform the lower temporary platform may be removed. The loading bay gates can be constructed using 2no. Stay Safe Arms and 4no, cut to size tubes 2no, cut to size scaffold boards.

The loading bay gates are coupled to the top guardrails and the platform finished with toe boards and brick guards to suit. Plan bracing or wing bracing must be added to platform and every other lift to stabilise outer legs.

Ensure a notice of S.W.L is fitted to the gate prior to use. The rear 1m high guardrail will be removed for access when platform is being used.

Important

Loading bays have been calculated using a fully boarded configuration and a nominal wind speed of 18m/s tied to a permanent structure at every leg and every lift with wing bracing to both outer legs at every other lift. For all other configurations, customers will require approved design. Loading towers are NOT to be built in to Genlok independent scaffold bays and should be tube tied at every leg and lift. Sheeting or Netting must NOT be added without approved design. For maximum heights, please see Safe Working Height Chart on page 43.

The towers maybe built to different configurations to enable large telehandlers and crane loading, but will require a further approved design.



Safe Working Height Chart

Options	Legs	Lift Height	Safe Working Height	No. Lifts	Loaded	Boarded	Notes
1&2	4	1.5m	29m	Kicker plus 10 Boarded lifts	Only one platform to be loaded	Every other lift	Every other lift wing braced
1&2	4	2.0m	10.5m	Kicker plus 5 Boarded lifts	Only one platform to be loaded	Every lift	Every other lift wing braced
3&4	6	1.5m, then 2m/1m intervals	26m	Kicker plus 9 Boarded lifts	Only one platform to be loaded	Every other lift, see notes.	Lifts; foot lift, 1.5m,2.0m, 1.0m then repeat 2.0m&1.0m lifts to required height. Wing braced at first lift, then every other lift
3&4	6	2.0	18.5m	Kicker plus 9 Boarded lifts	Only one platform to be loaded	Every lift	Every other lift wing braced

Staircases

GENLOK system scaffolding can be used to provide a safe, stable, site staircase enabling personnel to gain access to the working level swiftly and efficiently. Independently to other scaffolds or integral to GENLOK facade scaffolds, towers can be erected with full access landings, double handrails and non-slip stair units in either steel or aluminium.

The use of GENLOK staircases on site improves safety, replacing ladders and allows multiple numbers of personnel to climb safely to their work place at one time. The most popular are a four-leg tower with a foot print of 1.8m x 3.0m and an eight leg tower with a foot print of

1.8m x 4.4m providing a full width landing at each level. Stair units come in 1.5m and 2.0m units. 1.5m can be used where access is required to a base lift of 1.5m. Further lifts

will rise at 2m increments. Erection of Staircases does not follow the normal sequence of access scaffolding and care must be taken in their erection. It will be necessary to create temporary working platforms and additional hand railing to efficiently and safely erect staircase towers. Erectors should work within the guidance of SG4 and should consider where appropriate the use of collective protection systems.

Generally, toe boards are not required on Staircase landing platforms, as they do not constitute a working platform. TG20:13 states that "toe boards can be dispensed with" however, toe boards may be required as a result of a local risk assessment.





<mark>43</mark>



GENLOK 8-Leg Staircases

With only the addition of Stair case units and staircase Handrail Posts, standard GENLOK components can be used in the erection of the 8-Leg tower.

All tubular components are used with the exception of landing platforms which are created using OMEGA Transoms and either Timber or Steel Battens.

These items provide a non-slip surface for landings. Regular Swivel face braces are use to form double handrails and provide additional stability.



Aluminium Stair Units also available

The All New Aluminium Stair Units now comes equipped with a Bolted Runner System which avoids welded joints. The Stair Unit can be locked securely into place at both the top and bottom.



Additional Components Required for 8-Leg Stairtowers: Staircase Guardrail Post 8 Leg Code: 227377 Weight: 7.2 kg 1.3m OMEGA Transom Code: 227346 Weight: 7.2 kg 1.8m OMEGA Batten Code: 227363 Weight: 13.0 kg Code: 227311 1.8m x 2.0m Swivel Face Brace Weight: 9.8 kg 1.8m x 1.5m Swivel Face Brace Code: 227342 Weight: 8.7 kg



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Code	Description	Quantity																						
227302	2.0m Standard	0	4	8	8	4	4	4	8	8	8	4	0	4	8	4	4	8	4	4	8	4	4	8
227301	3.0m Standard	8	8	8	8	12	12	16	16	16	16	20	24	24	24	28	32	32	36	40	40	44	48	48
227332	0.9m Ledger	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
227306	1.3m Ledger	8	8	12	12	12	16	16	16	16	20	20	20	20	24	24	28	28	32	32	36	36	40	40
227305	1.8m Ledger	16	16	24	24	24	32	32	32	32	40	40	40	40	48	48	56	56	64	64	72	72	80	80
227311	1.8m x 2.0m S.F. Brace	0	8	0	8	16	0	8	16	24	8	16	24	32	24	40	32	48	40	56	48	64	56	72
227342	1.8m x 1.5m S.F. Brace	8	0	24	8	0	24	16	8	0	24	16	8	0	16	0	16	0	16	0	16	0	16	0
207007	Base Plate	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
279380	Staircase Guard Post	2	2	3	3	3	4	4	4	4	5	5	5	5	6	6	7	7	8	8	9	9	10	10
277363	1.8m Timber Omega Batten	10	10	15	15	15	20	20	20	20	25	25	25	25	30	30	35	35	40	40	45	45	50	50
227346	1.3m Omega Transom	8	8	12	12	12	16	16	16	16	20	20	20	20	24	24	28	28	32	32	36	36	40	40
227375	2.0m Staircase Unit	0	1	0	1	2	0	1	2	3	1	2	3	4	3	5	4	6	5	7	6	8	7	9
227376	1.5m Staircase Unit	1	0	2	1	0	3	2	1	0	3	2	1	0	2	0	2	0	2	0	2	0	2	0

8-Leg 2.0m

8 Leg 2.0m	Max No. F	Personnel	8 Leg 2.0m	Max No. Personnel					
Lifts LC2 Height	Steel Flights	Alum. Flights	Lifts LC2 Height	Steel Flights	Alum. Flights				
2m	-	-	2m	-	-				
4m	-	-	4m	-	-				
6m	-	-	6m	-	-				
8m	24	24	8m	49	49				
10m	31	31	10m	62	62				
12m	35	35	12m	71	71				
14m	42	42	14m	84	84				
16m	46	46	16m	93	93				
18m	53	53	18m	106	106				
20m	57	57	20m	115	115				
22m	64	64	22m	128	128				
24m	68	68	24m	137	137				
26m	75	75	26m	139	144				
28m	79	79	28m	132	137				
30m	86	86	30m	132	138				
32m	91	91	32m	126	131				
34m	97	97	34m	125	131				
36m	102	102	36m	119	126				
38m	108	108	38m	118	125				
40m	113	113	40m	113	120				
42m	111	119	42m	111	119				
44m	106	114	44m	106	114				
46m	104	104 112		104	112				
48m	99	107	48m	99	107				
50m	97	106	50m	97	106				

Fully Loaded Exceeds Leg Capacity



8-Leg 1.5m

8 Leg 1.5m	Max No. F	Personnel	8 Leg 1.5m	Max No. F	Personnel
Lifts LC2	Steel	Alum.	Lifts LC2	Steel	Alum.
Height	Flights	Flights	Height	Flights	Flights
rioigin	riigiito	riigiito	Holghi	riigillo	riigiito
1.5m	-	-	1.5m	-	-
3m	-	-	3m	-	-
4.5m	-	-	4.5m	-	-
6m	19	19	6m	38	38
7.5m	24	24	7.5m	48	48
9m	27	27	9m	54	54
10.5m	32	32	10.5m	65	65
12m	35	35	12m	71	71
13.5m	40	40	13.5m	81	81
15m	44	44	15m	88	88
16.5m	49	49	16.5m	98	98
18m	52	52	18m	104	104
19.5m	57	57	19.5m	114	114
21m	60	60	21m	121	121
22.5m	65	65	22.5m	131	131
24m	68	68	24m	137	137
25.5m	74	74	25.5m	148	148
27m	77	77	27m	154	154
28.5m	82	82	28.5m	164	164
30m	85	85	30m	171	171
31.5m	90	90	31.5m	181	181
33m	93	93	33m	187	187
34.5m	98	98	34.5m	197	197
36m	102	102	36m	204	204
37.5m	107	107	37.5m	214	

Tower Ties at 4m vertical centres with no more than 300mm between the internal standards and the supporting structure without guidance from the Technical Services department. All ties should be continuous, rigid and connect to all the standards in the transverse bay to be fixed they should also be sufficient to accommodate loading in two horizontally perpendicular directions. The Tower must not extend in excess of 4m above the last tied level.

Loading is based upon 1 person = 1kN (98kg)
Safe working heights are based upon an installation with no wind loading.
Wind load effects will reduce the effective heights and advice should be sought from the Technical Services Department for further guidance on site per site basis.

8-Leg Erection Sequence

A minimum of 2 persons should erect stair towers and have regard for the use of harnesses as per guidance SG4. Ideally a third person should pass up materials as the construction of staircases requires reach from working areas.

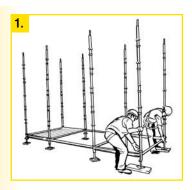
On firm ground layout timber sole plates with 8 adjustable bases. Space apart to create a 1.8 square bay in the middle with 1.8 x 1.3m bays at each end.

Show temporary guardrails to use step system when hemping short standards.

NOTE: The landing platforms in Genlok 8 leg staircases are constructed using Omega components. Each landing platform uses Omega battens supported by Omega transoms.

It is essential that all temporary platforms used for erection are satisfactorily supported. It is recommended that additional Omega components are used for this purpose.

SAFETY NOTE: Access to all landings and temporary erection platforms should be achieved by fully tied ladders.



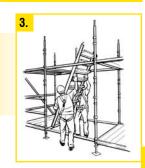


To complete bottom landing platform place staircase handrail post* in centre of inner 1.8m ledger and install handrail at 0.5m spacing using 0.9 ledgers, 1.3 and 1.8 ledgers.

Leaving space for staircase. Place 1.8 x 1.8 swivel face brace at each end. Fix next to lift as base. To maintain 2m lift heights a 1.5m staircase can be used at the bottom lift only. Use spirit level to adjust level by jacks.

*half coupler connection

As a two man operation lift the staircase into position connecting to the lower platform and upper platforms with hooks over ledgers. Attaching to staircase guard posts fit swivel face braces as stair handrails on each lift. These form the dual role of handrails and sway bracing.



Generation Genlok user guide



Handrail top platform with 1.3m, 1.8m and 0.9 ledgers before continuing.

Continue sequence on each level until fully erected.





Ensure that top platform is hand railed with ledgers at 0.5m spacing including the open stair return. All scaffolds to show incomplete signage until handed over.

Scaffolding should always be erected and dismantled by competent persons. Safety Harnesses should always be worn and used in line with NASC guidance SG4. Ties should be placed at every level for an emergency escape. Toeboards are to be inline with WAHR recommendations.

GENLOK 4-Leg Staircases

The GENLOK 4-Leg Stairtower provides a compact solution with a base size of 1.8m x 3.0m. Ideal for use in confined spaces.

Using fewer components it is easy and fast to erect. Additional Components comprise Handrail Post, 0.6m, 0.9m, 3.0m Ledgers and Mesh deck landing.

Using fewer components it is easy and fast to erect. Additional Components comprise Handrail Post, 0.6m, 0.9m, 3.0m Ledgers and Mesh deck landing.



Handrail Post Code: 227329 Weight: 4.9 kg Mesh Deck (4 Leg) Code: 227526 Weight: 31 kg

Additional Components required for 4-Leg Stairtowers									
	Code	Weight							
0.6m Ledger	227328	2.65 kg							
0.9m Ledger	227332	6.0 kg							
3.0m Ledger	227406	11.3 kg							
Handrail Post	227329	4.9 kg							
Mesh Deck	227526	31 kg							
3m x 2m Swivel Face Brace	227407	13.0 kg							
1.5m x 3m Swivel Face Brace	227411	13.0 kg							

Handrail Units are available to suit 1.5m Stair flights (Code: 227426 - Right) (Code: 227427-Left)

1.5m Aluminium **Stair Unit** Code: 227412

Weight: 23 kg

2.0m Aluminium **Stair Unit**

Code: 227413 Weight: 27 kg

1.5m Steel Stair Unit Code: 227376 Weight: 50 kg 2.0m Steel **Stair Unit** Code: 227375 Weight: 65 kg



1.5m Platform Height 2.0m Platform Height 3.5m Platform Height 4.0m Platform Height 5.5m Platform Height 5.5m Platform Height 5.5m Platform Height 6.5m Platform Height 7.0m Platform Height 7.0m Platform Height 7.5m Platform Height 8.5m Platform Height

Code	Description	Quantity																					
227302	2.0m Standard	0	2	4	2	2	2	4	4	4	2	0	2	4	2	2	4	2	2	4	2	2	4
227301	3.0m Standard	4	4	4	6	6	8	8	8	8	10	12	12	12	14	16	16	18	20	20	22	24	24
227332	0.9m Ledger	8	8	12	12	16	16	16	16	20	20	20	20	24	24	28	28	32	32	36	36	40	40
227306	1.3m Ledger	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
227305	1.8m Ledger	8	8	12	12	16	16	16	16	20	20	20	20	24	24	28	28	32	32	36	36	40	40
227430	2.4m Ledger	2	2	4	4	6	6	6	8	8	8	8	8	10	10	10	12	12	14	14	16	16	18
227406	3.0m Ledger	4	4	6	6	8	8	8	8	10	10	10	10	12	12	14	14	16	16	18	18	20	20
227311	1.8m x 2.0m S.F. Brace	0	6	6	12	0	6	12	18	6	12	18	24	18	30	24	36	30	42	36	48	42	54
227342	1.8m x 1.5m S.F. Brace	6	0	6	0	20	12	6	0	18	12	6	0	12	0	12	0	12	0	12	0	12	0
227407	2.0m x 3.0m S.F. Brace	2	2	4	4	6	6	6	6	8	8	8	8	10	10	12	12	14	14	16	16	18	18
227411	1.5m x 3.0m S.F. Brace	2	0	2	0	6	4	2	0	6	4	2	0	4	0	4	0	4	0	4	0	4	0
207007	Base Plate	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
227375	2.0m Staircase Unit	0	1	1	2	0	1	2	3	1	2	3	4	3	5	4	6	5	7	6	8	7	9
227376	1.5m Staircase Unit	1	0	1	0	3	2	1	0	3	2	1	0	2	0	2	0	2	0	2	0	2	0
227526	Mesh Landing Platform	2	2	3	3	4	4	4	4	5	5	5	5	6	6	7	7	8	8	9	9	10	10
227329	Handrail Post (Spigot type)	6	6	9	9	12	12	12	12	15	15	15	15	18	18	21	21	24	24	27	27	30	30

4-Leg 2.0m

4 Leg 2.0m	Max No. F	Personnel	8 Leg 2.0m	Max No. Personnel							
Lifts LC2 Height	Steel Flights	Alum. Flights	Lifts LC2 Height	Steel Flights	Alum. Flights						
2m	-	-	2m	-	-						
4m	-	-	4m	-	-						
6m	-	-	6m	-	-						
8m	17	17	8m	35	35						
10m	21	21	10m	43	43						
12m	25	25	12m	51	51						
14m	29	29	14m	59	59						
16m	34	34	16m	68	68						
18m	38	38	18m	76	76						
20m	42	42	20m	84	84						
22m	46	46	22m	91	92						
24m	50	50	24m	88	91						
26m	54	54	26m	85	89						
28m	58	58	28m	83	86						
30m	62	62	30m	80	83						
32m	66	66	32m	77	80						
34m	70	70	34m	74	78						
36m	71	74	36m	71	75						
38m	68	73	38m	68	73						
40m	65	70	40m	65	70						
42m	62	67	42m	62	67						
44m	59	64	44m	59	64						
46m	56	62	46m	56	62						
48m	53	59	48m	53	59						
50m	50	56	50m	50	56						

Fully Loaded Exceeds Leg Capacity



4-Leg 1.5m

4 Leg	Max No. F	Personnel	4 Leg	Max No. Personnel					
1.5m Lifts LC2	Steel	Alum.	1.5m Lifts LC2	Steel	Alum.				
Height	Flights	Flights	Height	Flights	Flights				
rioigiit	riigiito	riigiito	Troigin	riigillo	riigiito				
1.5m	-	-	1.5m	-	-				
3m	-	-	3m	-	-				
4.5m	-	-	4.5m	-	-				
6m	13	13	6m	27	27				
7.5m	16	16	7.5m	33	33				
9m	19	19	9m	39	39				
10.5m	22	22	10.5m	45	45				
12m	25	25	12m	51	51				
13.5m	28	28	13.5m	57	57				
15m	31	31	15m	63	63				
16.5m	35	35	16.5m	70	70				
18m	38	38	18m	76	76				
19.5m	41	41	19.5m	82	82				
21m	44	44	21m	88	88				
22.5m	47	47	22.5m	94	94				
24m	50	50	24m	100	100				
25.5m	53	53	25.5m	106	106				
27m	56	56	27m	112	112				
28.5m	59	59	28.5m	118	118				
30m	62	62	30m	124	124				
31.5m	65	65	31.5m	130	130				
33m	68	68	33m	136	136				
34.5m	71	71	34.5m	140	142				
36m	74	74	36m	136	138				
37.5m	77	77	37.5m	136	138				

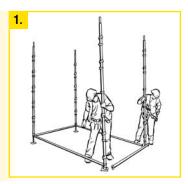
Tower Ties at 4m vertical centres with no more than 300mm between the internal standards and the supporting structure without guidance from the Technical Services department. All ties should be continuous, rigid and connect to all the standards in the transverse bay to be fixed they should also be sufficient to accommodate loading in two horizontally perpendicular directions. The Tower must not extend in excess of 4m above the last tied level. Loading is based upon 1 person = 1 kN (98 kg)Safe working heights are based upon an installation with no wind loading. Wind load effects will reduce the effective heights and advice should be sought from the Technical Services Department for further guidance on site per site basis.

Fully Loaded Exceeds Leg Capacity

4-Leg Erection Sequence

A minimum of 2 persons should erect stair towers and have regard for the use of harnesses as per guidance SG4. Ideally a third person should pass up materials as the construction of staircases requires reach from working areas. This guide assumes the use of additional components, Handrail Post 227329, Mesh Deck 227526, 0.9m Ledger 227332, 3.0m ledger 227406, 3m x 2.0m swivel face brace 227407, 3m x 1.5m swivel face brace 227411

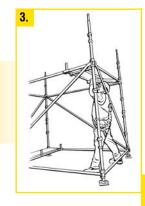
On firm ground layout timber sole plates with 4 adjustable bases. Space apart with 3m ledgers and 1.8 ledgers. Locate the first 3.0m vertical (standard) over one of the base jacks. Support this vertical whilst the horizontals (1 x3.0m and 1 x 1.8m) are located and the top cup locked over the joint. Complete each corner and lock loosely the top cup by dropping and turning to secure the joint. Using spirit level adjusts jacks on three consecutive sides in turn. At 2.0 lift level complete lift as before. Once square fix face braces to each side using 1.8m x 2m and 2.0m x 3.0m Swivel Face Braces.



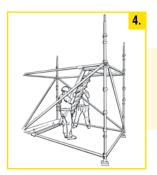


Complete 1st landing platform by locating mesh deck, install Handrail posts.

Install the 2nd landing at the 2m lift level at opposite end. Install swivel face braces from handrail posts to provide handrailing to the staircase at each level.

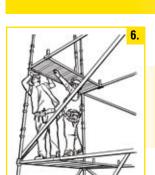


Generation Genlok user guide



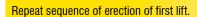
As a two man operation lift the staircase into position connecting with the mesh decks, connect 0.6m and 0.9m Ledgers to the handrail posts to complete hand railing.

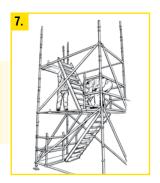
Install next lift ledgers from temporary platform.
Single guardrails should be fixed to comply with SG4.



5.

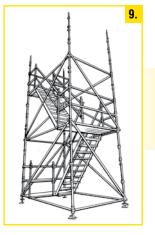
The upper levels of the staircase follow the same sequence erecting first landings using mesh decks. Installing ledger lifts, braces and staircases. Completing each landing platform with guard rail posts and special ledgers to provide a full handrail.





Repeat process to required height.





At the top platform ensure fully hand railed at 0.5m spacing including the open stair return. Ties should be at each level to both inside and outside standards.

Access to all landings and temporary erection platforms should be achieved by fully tied ladders. As platforms are not continuous temporary working platforms, will be required to enable safe erection where necessary. It is recommended that these be created out of additional mesh decks on each alternative opposite landing. Alternatively erectors should create properly constructed support.

Remember 1½" (38m) Scaffold boards should only span a maximum of 1.2m (4ft).

Scaffolding should always be erected and dismantled by competent persons. Safety Harnesses should always be worn and used in line with NASC guidance SG4





GENLOK Birdcages

The GENLOK OMEGA Batten System can be used to create birdcage scaffolds for large area access utilising OMEGA Transom units and Steel and Timber Battens.

strengthened 2.5m Heavy Duty OMEGA Transom.

Grids as large as 2.5m can be achieved using the Use of Steel Battens 238mm wide provides a clear no trip working area.

All sizes of OMEGA Transoms can be used with Ledger sizes 2.5m, 1.8m and 1.3m to achieve optimum grid sizes.

2.5m HD OMEGA Transom

Code: 227347 Weight: 24.8 kg (H/D) Only

Galvanised Steel 225mm x 63mm 1.3m OMEGA Steel Stage

Code: 227386 Weight: 6.7kg 1.8m OMEGA Steel Stage

Code: 227388 Weight: 9.1 kg 2.5m OMEGA Steel Stage

Code: 227381 Weight: 12.4 kg Galvanised Steel 238mm x 57mm

0.6m OMEGA (Wider) Steel Stage

Code: 227506 Weight 4.33 kg

0.9m OMEGA (Wider) Steel Stage Code: 227509 Weight 6.50 kg

1.3m OMEGA (Wider) Steel Stage

Code: 227513 Weight: 9.0 kg

1.8m OMEGA (Wider) Steel Stage

Code: 227518 Weight: 13.0 kg 2.5m OMEGA (Wider) Steel Stage

Code: 227525 Weight: 16.0kg

Ladder access Transoms can be used within OMEGA 1.3m bays to allow ladder access.



Ladder Access Transom

Code: 227333 Weight: 10.0 kg

Rescue Plan

GENLOK is a fast and simple system which when erected by suitably trained and skilled operatives improve levels of safety over traditional methods. Automatic positioning of all components including handrails without the need for levelling ensures safety whilst erecting. The system with handleable components is easily erected safely and efficiently.

However, erectors need to be mindful of the risks and plan to work as safely as possible. In accordance with the Fall from Heights Regulations 2005 (as amended), every attempt should be made to "mitigate the risk involved by prevention of falls by using work equipment or other measures to prevent fall. Where they cannot avoid working at height and where they cannot eliminate the risk of a fall, use work equipment or other measures to minimise the distance and consequences of a fall should one occur".

Generation recommend the use of collective measures such as Advanced Guardrail systems, Hop-Ups and Steps where structural parts and handrails can be installed from a place of safety during the erection process. Alternatively the use of fall protection equipment to restrain and limit any falls. Harnesses should be worn and used at all stages of erection of GENLOK.

The "Work at Height Regulations 2005" specifically requires every employer to take account of the need for an easy and timely evacuation in the event of an emergency where scaffolders or operatives suffer disability or falls when suspended in a harness.

A site specific Risk Assessment and Method Statement is essential in determining the plan required for the recovery of a disabled or incapacitated person. Generation recommend that contractors, employers develop their own rescue plan in accordance with the recommendations of the NASC in their documents SG4 and Guide to Formulating a Rescue Plan SG19.





All erectors should be trained in the use of special rescue equipment and ensure all equipment for rescue is available and is fit for use at all times.

NB: Legislation is consistently being updated and users are responsible to ensure that the latest and most appropriate is used at the time.



Generation training services



PSMA

- · Mobile Access Towers (over 2.5mtrs)
- Low Level Access (2.5mtrs and under)
- Combined Mobile Access Towers and Low Level Equipment
- · Work at Height Essentials
- · Manager/Supervisor
- · Inspection & Operations
- · Towers on Stairs



- MEWPS for Managers
- Safe Use of Harnesses
- Instructor

IPAF

- Operator
- Demonstrator

Material Handling & Lifting

· Site Managers Safety Training

Site Supervisor Safety Training

all major organisations.

· Site Health & Safety

Scheme (SMSTS)

Scheme (SSSTS)

The Construction Industry Scaffolders Record Scheme has

been the industry recognised scaffolding training scheme for

over 30 years. It is the preferred scaffolding qualification of

- Forklift Truck
- Plant

• SG4:10

CITB

· Lifting & Slinging

· Rescue Training



The Ladder Association

- · Safe Use and User Inspection of Ladders & Step Ladders
- · Ladder Inspection -Competent Person
- Step Ladders & Stool Users



General Health & Safety

Safe Working at Height

Product/Task Specific

• Safety Decking Assembly &

· Bespoke Safe Work at Height -

Manual Handling

Inspection

- Abrasive Wheels
- Confined Space
- UKATA Asbestos Awareness
- · Harness & Fall Protection **Equipment Training**







Scaffold Training

- . CISRS Part 1 Tube & Fittings
- · CISRS ALTRAD Futuro & Genlok System Scaffold
- · CISRS Basic Scaffold Inspection
- CISRS Operatives Training Scheme (COTS)
- System Scaffold Inspection
- · System Scaffold Stairtower



NASC

NASC Code of Practice

Genlok System Scaffold supplied by Generation UK Ltd has been audited by the NASC and has met the criteria to satisfy the NASC Code of Practice for proprietary System Scaffold Systems. Genlok has met or exceeded the criteria for Quality, Technical Specification and Compliance to EN 12810 and EN12811 2004.





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