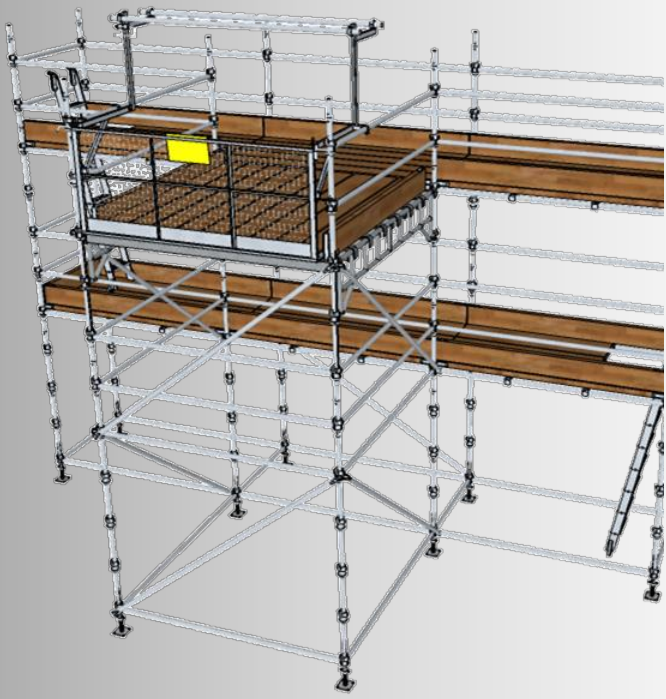
ACCESS SOLUTIONS LTD.

Loading Platforms User Guide

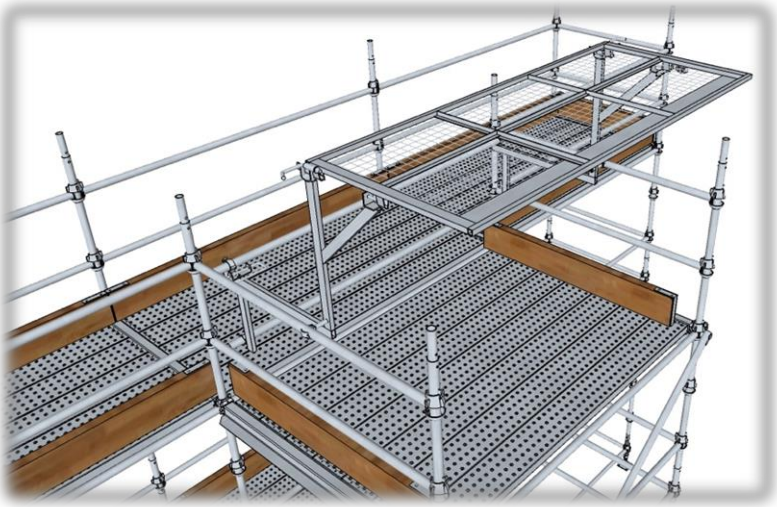


Contents

Introduction

VR Access Solutions design and manufacture a variety of components suitable for constructing scaffold loading bay platforms. From components that are shared with the market leading Turnlok^{460} system, to specific problem-solving items such as extendable safety gates and gate-lock clamps, we have a solution to help in their assembly.

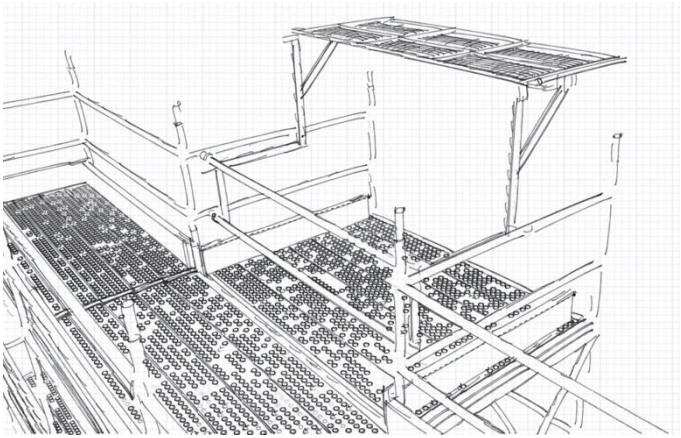
VR Access Solutions have undertaken a comprehensive program of testing and certification on these components, ensuring they meet the highest standards and are fit for purpose in all common use conditions.



Safety Information

The use of scaffold loading bays leaves a free edge to the scaffold, presenting a risk to the end user which must be managed.

VR Access Solutions have designed and developed loading bay safety gate systems to reduce this risk, by providing a guard at the free edge in both the open and closed conditions. Gates are available in aluminium and steel, to suit both system and tube and fitting scaffolds. An adjustable version is also produced, assisting safe use of the loading bays in all common scaffold arrangements.



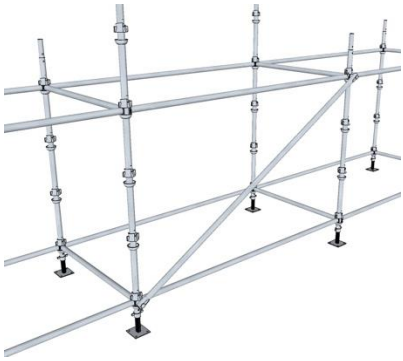
SCAFFOLD SAFETY

Loading towers should be treated as any other scaffold and as such must only be erected, modified and dismantled by competent and appropriately trained operatives. The information contained within this guide is for general guidance only; requirements specific to the scaffold under construction must be considered in all cases

Component Details

Standards, Ledger and Bracing

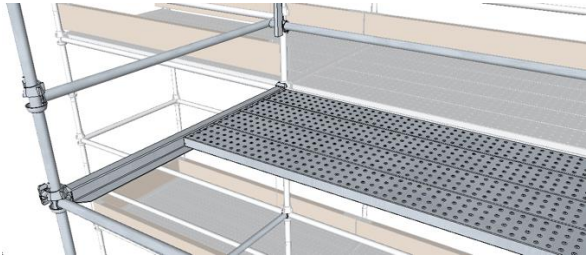
Core components used for the framing of the loading bay towers, shared with the VR Access Turnlok and Turnlok^{460} Access Systems.



Product Code	Item	Weight (Kg)
VRS50a	1.0m Standard	5.8
VRS50b	2.0m Standard	11.2
VRS50c	3.0m Standard	16.5
VRS52i	1.8m Tube Ledger	6.9
VRS52k	2.5m Tube Ledger	9.5
VRS53e	1.8m x 2.0m Brace	9.8
VRS53c	2.5m x 2.0m Brace	11.5

Omega Load Deck

The following additional components form the platform of the 1.8m deep x 2.5m wide Omega style load platform.

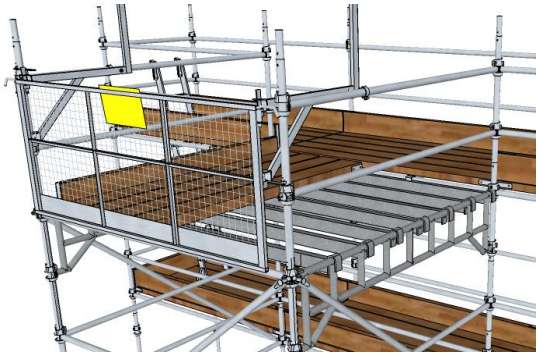


NB – Battens partly omitted for clarity

Product Code	Item	Weight (Kg)
VRS51c	1.8m Omega Transom	8.4
VRS01c	2.5m Steel Batten	18.0

Timber or Steel Load Deck

The following additional components are used to form a traditional cuplok load tower deck. Either steel or timber battens can used to form the platform.

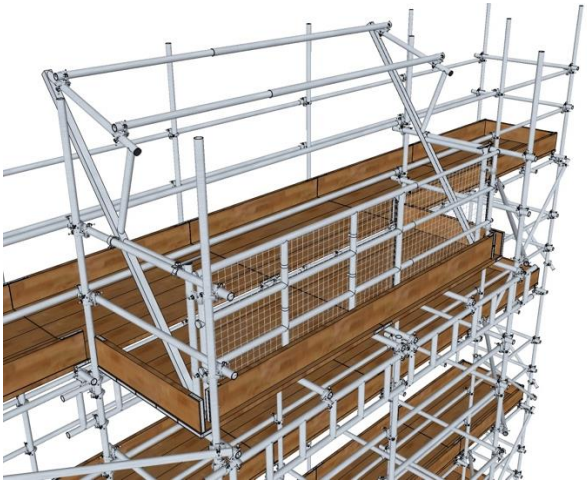


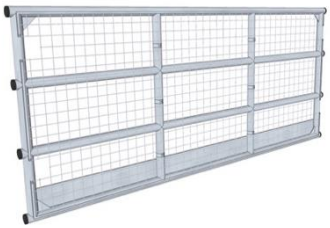
NB – Battens partly omitted for clarity

Product Code	Item	Weight (Kg)
VRS85	Loading Bay Beam	30
VRS86	Steel Board Bearers	17
VRS86T	Timber Batten Bearers	15
VRSTB3	2.5m Timber Batten	18
VRS01C	2.5m Steel Board	18

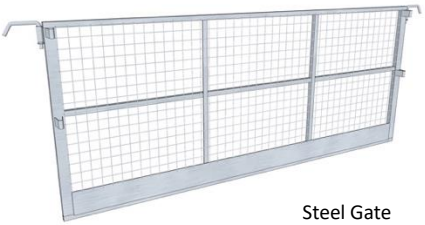
Safety Gates and Accessories

Three types of loading bay gates are available to suit most practical applications. The extendable gate has been independently tested and found to be compliant with the requirements of both BS EN 12811-1:2003 and BS EN 13374:2013.





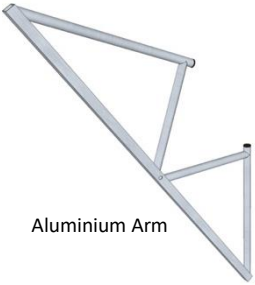
Aluminium Gate



Steel Gate

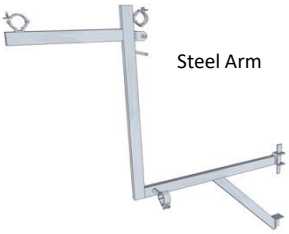
Extendable Gate

Product Code	Item	Weight (Kg)
VRS81	Aluminium Loading Bay Gate	15
VRLB	Steel Loading Bay Gate	20
VRS75	Extendable Loading Bay Gate	19

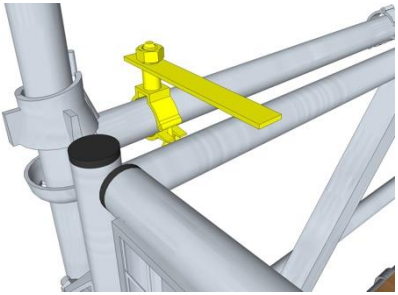


Aluminium Arm

W Arm



Steel Arm



Gate Lock Clamp

Extendable Guardrail

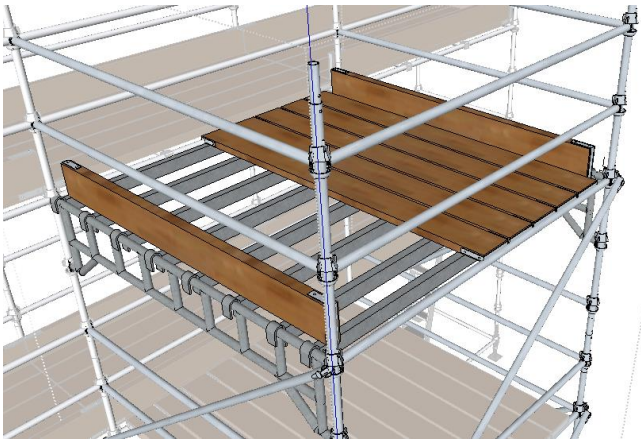
Product Code	Item	Weight (Kg)
VRS72	Aluminium Gate Arms	10
VRSDA	W Arms	15
VBLB	Steel Gate Arms	15
VRS78	Gate Lock Clamps	
VRS79	Extendable Guardrails	12

Deck Construction and Loading Capacities

Timber or Steel Load Deck

The timber load deck is constructed using timber or steel boards supported on 8 No. batten bearers, spanning 2.5m between load bay beams, which in turn span 2.5m between standards.

In this configuration, the load deck is capable of accommodating 10 kN/m^2 imposed loading.

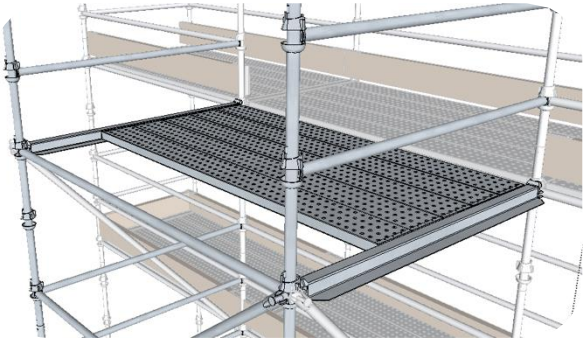


NB – Gate and partial deck omitted for clarity

Omega Load Deck

The Omega load deck is constructed using steel boardss spanning 2.5m between Omega Transoms, which in turn span 1.8m back to the standards.

In this configuration, the load deck is capable of supporting a 1 tonne pallet of size 1200mm x 1000mm which is placed centrally on the loading deck.

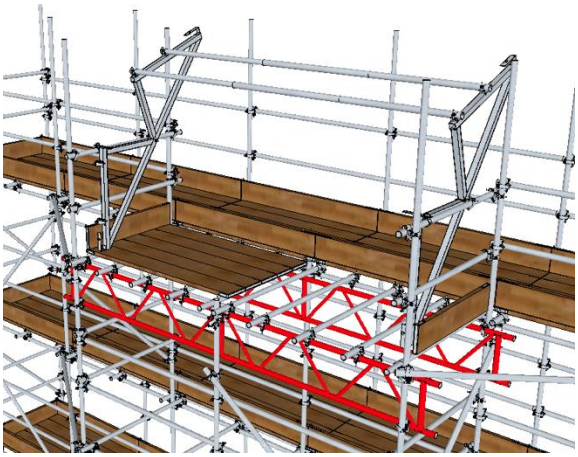


NB – Gate, toeboards and partial deck omitted for clarity

Tube and Fitting Load Deck with Aluminum Beams

This arrangement of load platform is constructed with tube transoms at 400mm centres, spanning onto VR Access Solutions Aluminium Beams which must have a maximum span of 3.7m. The platform is to be five board width.

In this configuration, the load deck is capable of accommodating 10 kN/m^2 imposed loading.

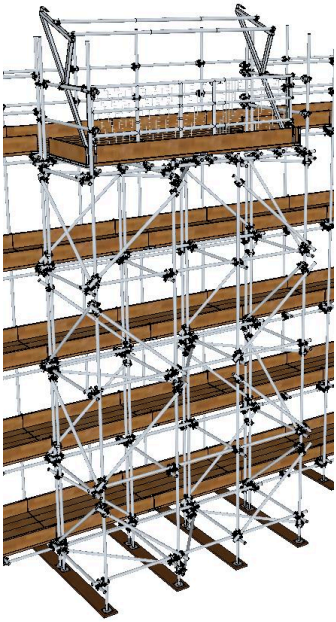


NB – Gate and partial deck omitted for clarity

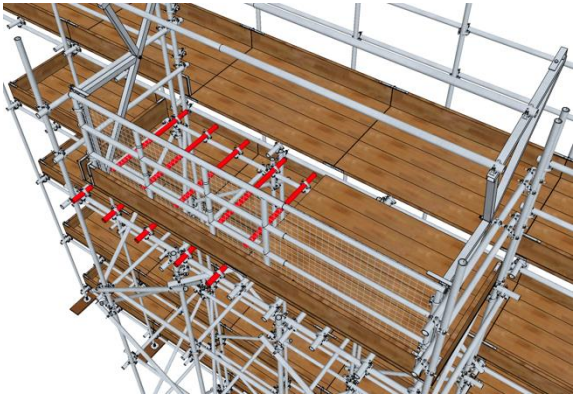
Tube and Fitting Load Deck

The tube and fitting load deck is erected using transoms at 400 mm max centres and ledgers with a maximum span of 1250 mm. The platform is to be five board width.

In this configuration, the load deck is capable of accommodating one 1.2m x 1.0m 1000 Kg pallet at each end; the centre of the platform is for personnel only.



Tube and fitting load tower



View on Platform – boards partially omitted for clarity

Tower Construction

Construction of a load bay tower should be given the same consideration as the main scaffold. Consult the Turnlok[460] user guide for further information on general safety aspects relating to the erection of scaffolding.

The following sequences are generic and for information only. All platforms in this guide have been designed to withstand the stated loadings.

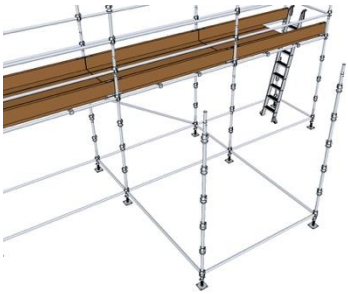
Each supporting tower must be designed with consideration of the specific requirements of the site, with respect to wind loading and tying of the tower. Bracing patterns must be specified so as to achieve overall stability, along with a suitable permissible axial load in the standards to withstand the imposed loadings noted in this guide. A competent temporary works engineer must be consulted for the design of the supporting tower.

Loading towers may be erected on shared standards with the supporting scaffold as shown in the following erection sequences, or on independent standards which are coupled to the main scaffold standards at every lift. If shared standards are used, suitable checks must be undertaken on the supporting scaffold for the additional loading.

Tower erected on shared standards

Timber Deck Load Tower

1) Assemble the foot lift and first standards at the required loading tower location.



2) Working from the ground, add the first lift ledgers and upper standards.

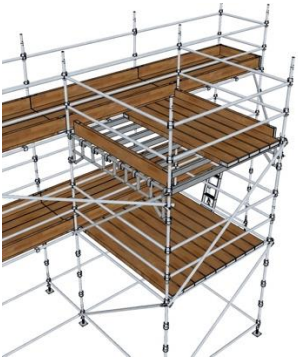
3) Fix diagonal bracing in the base lift. Fix temporary guardrails at +1.0m (not shown), and using a scaffolders step fit the guardrails to the first lift.

4) Erect a temporary platform at the first lift, and fit the ledger and load bay beams to the second lift.

5) Using a scaffolders step, add the guardrails to the second lift.

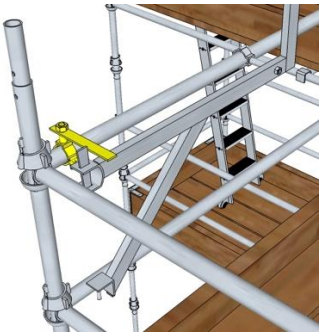
6) Fix the diagonal bracing in the second lift.

7) Working from the temporary platform, add the wing braces, batten bearers, toeboards and timber deck battens.



8) Remove the temporary platform. Working from the completed platform, fix the gate arms to the side guardrails.

9) Fix the gate lock and lock the arms down.



10) Remove the front guardrails and fix the gate onto the arms. Fix the rear guardrail tubes into place, and remove the guardrails between main scaffold and the loading deck. Affix SWL notice to centre of gate.

Omega Deck Load Tower

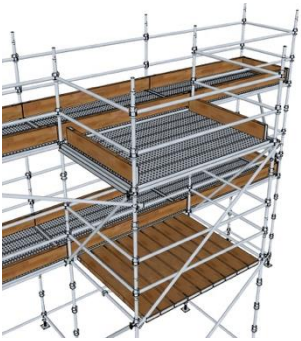
1) Follow the procedure for the timber platform tower up to Step 4

2) Erect a temporary platform on the first lift, and add the 1.8m Omega transoms to the side of the second lift and the 2.5m tube ledger across the front.

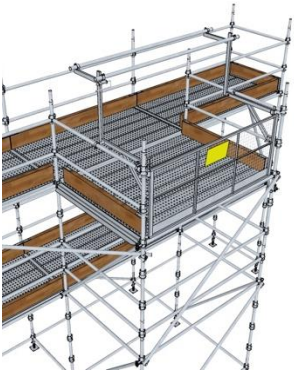
3) Using a scaffolders step from the temporary platform, fit the guardrails to the top lift.

4) Fix diagonal bracing to the second lift.

5) Working from the temporary platform, fit the wing braces, toeboards and steel battens.



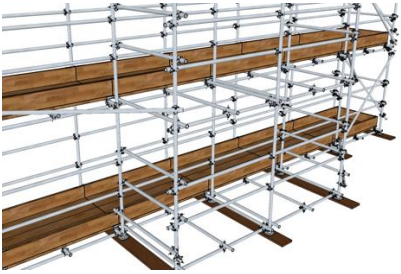
6) Continue with Steps 8 to 10 as described for the Timber Deck Load Tower.



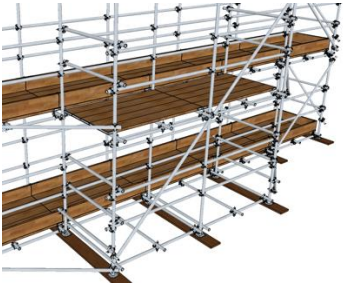
Tube and Fitting Tower with Aluminium Beams

1) Erect standards, base ledgers and transom tubes, and wing braces.

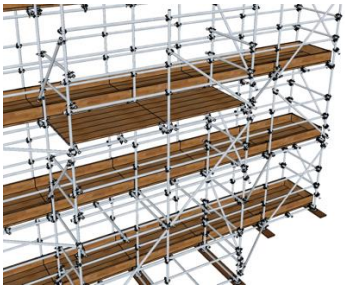
2) Add the first lift ledgers, transoms, wing braces, and the first lift handrails using a scaffolders step.



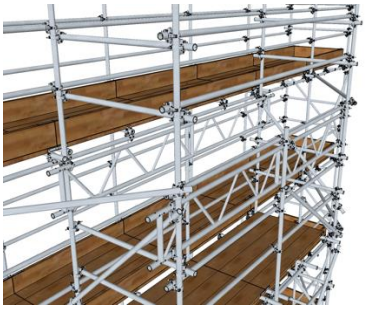
3) Add boards to the first lift to use as a temporary platform for erection. Add diagonal face bracing.



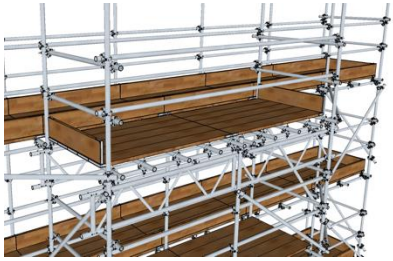
4) Continue the sequence until lift below the desired platform height is reached.



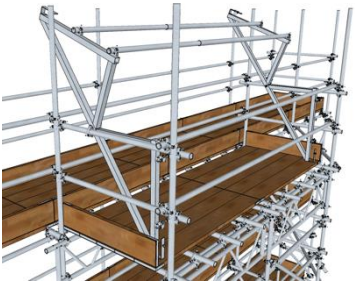
5) Add the VR Access Aluminum Beams, transoms, braces and upper guardrails, using a scaffolders step for the guardrails.



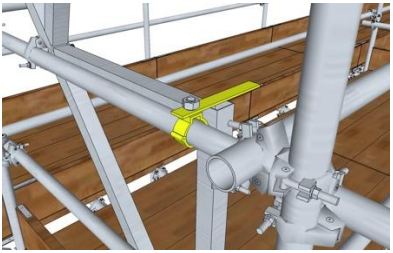
6) Add the boards to form the load deck.



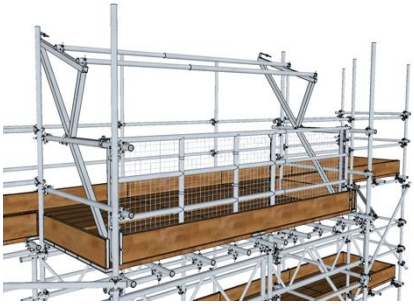
7) Remove all temporary platforms and fit the gate arms.



8) Fit the gate locks and lock the gate arms down into the close position.



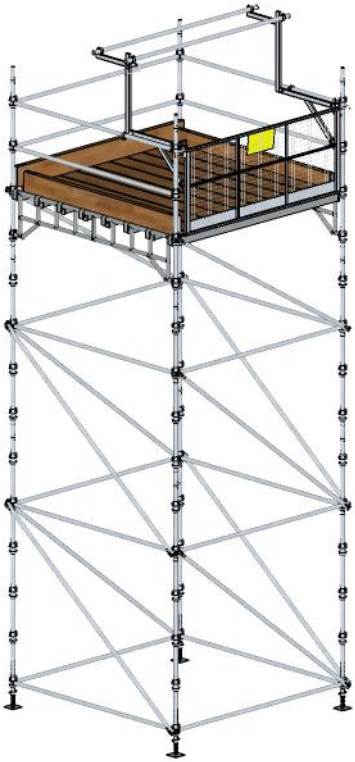
9) Remove the front guardrails and fit the gate into position. Remove the guardrails separating the platforms from the main scaffold. Affix SWL notice to centre of gate.



Freestanding Loading Towers

All of the platform arrangements described within this guide can be constructed in a freestanding loading tower, which is completely independent from any adjacent scaffold or structure.

A competent temporary works engineer must be consulted in all cases to specific the design of the supporting tower with regards to its strength and overall stability.



Further Information

This user guide incorporates the basic information on the safe use of the VR Access Solutions Loading Tower components for typical usage only. Further information is contained in the Turnlok[460] user guide. For specialist arrangements and locations of use it is recommended that you contact VR Access Solutions in the first instance for more specialist advice, or a competent scaffold design engineer.

TURNLOK™

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