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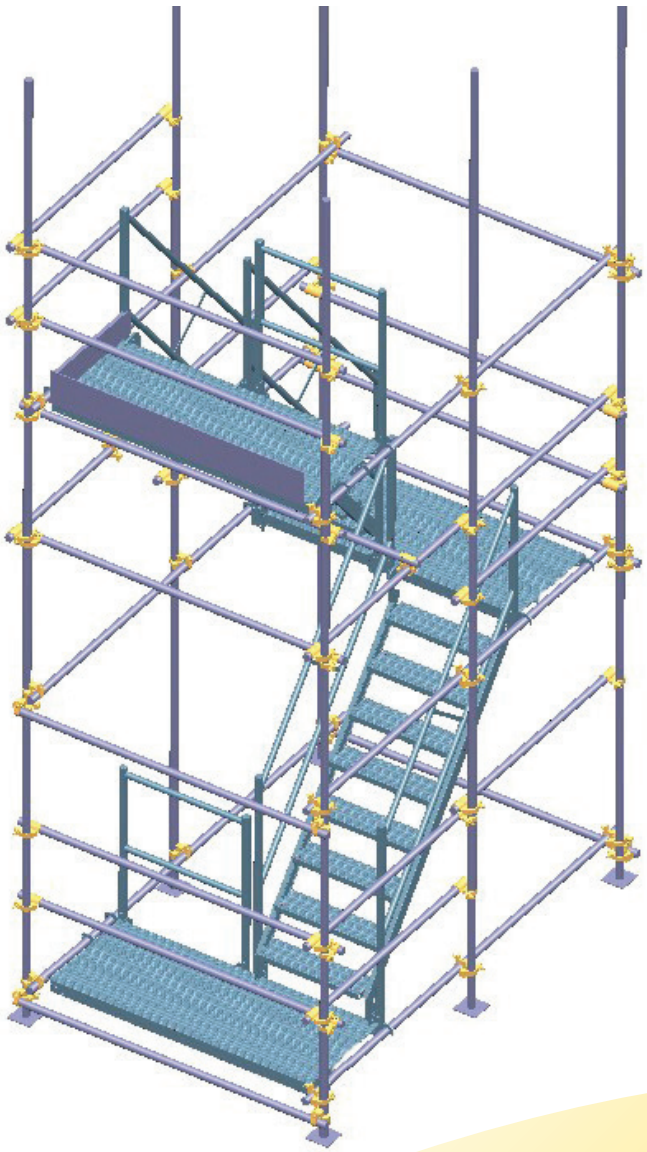

tube & fitting

one bay stair unit user guide

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One Bay Stair Tower used in conjunction with Tube & Fitting Scaffolding and designed to conform to all current British and European Standards.

With only five main components, that all weigh less than 25 kilos, One Bay is also compliant with all current regulations regarding materials handling by one person.

General Notes

Ensure that the equipment chosen to support **One-Bay** is compliant with all current standards and is in a serviceable condition.

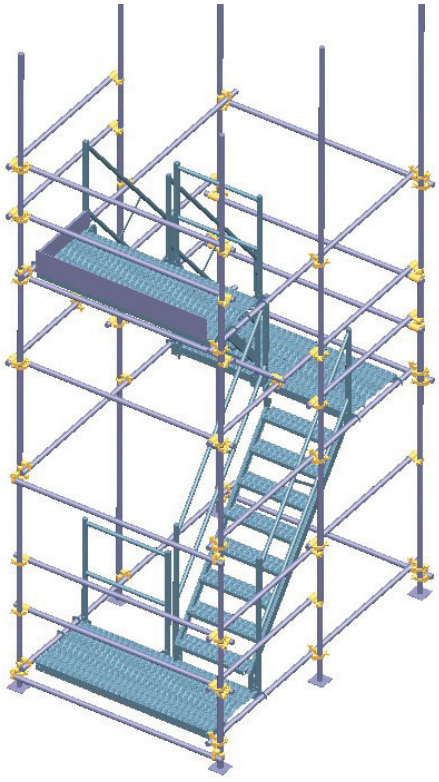
It is the Employers responsibility to ensure the competence of those tasked with erecting, modifying and dismantling the structure and should be undertaken in conjunction with their own safe systems of work e.g. effective Risk Assessments and Method Statements.

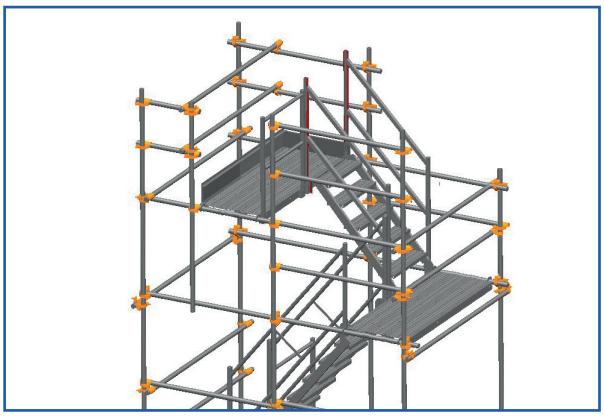
For reasons of clarification bracing has been omitted from the following diagrams, but if constructed as an independent Staircase then all sides of the scaffold should be diagonally braced to the full height. If built as an integral part of a scaffold run then the outside face should be diagonally braced.

Although designed to be built independently, **One-Bay** requires tying-in to either a scaffold or a rigid structure in accordance with current scaffolding practice.

One-Bay has been designed to provide safe access and egress in compliance with BS EN 12811-1:2003 Temporary Works Equipment Part 1 : Scaffolds – Performance Requirements and General Design. For any exceptional applications refer to your supplier for further technical support.

One-Bay has been specifically designed so that it can be quickly and easily maintained to guarantee continued safe use. Refer to page 7 for simple inspection procedures to ensure **One-Bay** is always ready for use.





ALTERNATIVE 1M STAIR TOP LIFT

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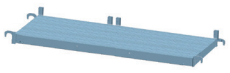
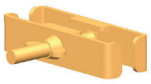
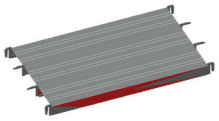
Components

Description	Item No	Weight	Component
1.0m Stair Unit (5 tread)	AS2010	20.6kg	
1.0m Banister Handrail	AS2004	5.1kg	
2.0m Stair Unit (8 tread)	AS2020	24.9kg	
1.5m Stair Unit (7 tread)	AS2015	21.8kg	
2.0m Banister Handrail	AS2002	6.8kg	
1.5m Banister Handrail	AS2003	6.7kg	

Description	Item No	Weight	Component
Landing Platform	AS040	21.5kg	
Landing Handrail	AS2019	4.5kg	
Handrail Clamp	AS2031	0.36kg	
Connecting Pin	AS2030	0.06kg	
Auxiliary Work Platform	AS2301	17.51kg	
Auxiliary Platform Handrail	AS2302	5.5kg	

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Erecting Notes

Work at Height regulations require that Collective Fall Prevention (e.g. Advanced Guardrails) be given priority over Personal Measures (e.g. Harnesses) when erecting/dismantling scaffolding. **One-Bay** can be safely and easily erected, using the Temporary Work Platform, by both options.
In either case please ensure Manufacturers instructions are strictly adhered to.

In compliance with current Codes of Practice ensure that ground conditions are both level and suitable for load-bearing.

When setting out vertically it is useful to make up a short tube with Right Angled Couplers spaced at 2:0 metre centres to simplify measuring.

It is advisable to fit diagonal bracing prior to the **One-Bay** aluminium equipment, as it will help vertically align the scaffold making the build sequence easier.

All setting out dimensions are to centres of standards (1.35m) or Ledgers (1.8m)

Toe Boards

Current Codes of Practice only require toe boards to be fitted where there is a "risk of falling materials and objects" (i.e. a working platform), therefore since the Landing Platform is only providing access to the working platform toe boards are not required.

If toeboards are required then the **One-Bay** system Toeboard can be used.

In conditions where the installation of conventional toe boards would present a difficulty then to satisfy Codes of Practice which require the provision of "Adequate side protection" then Mesh brick guards or 'Kwikguards' may provide an adequate solution.

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Erection Procedure

1. Set out two 1.35 x 1.8 metre bays with the next row of Ledgers at 1.5m or 2m above. Locate a Landing Platform and a temporary Landing Platform making sure the connecting sockets face into the bay (Fig.4f). Ensure all platform locks are engaged onto the Ledger. Level, plumb and brace in readiness for further equipment.
   Fit double handrails to the area selected for the first Landing Platform position (Fig.1) (Use short tubes with R.A couplers at 1800mm and 2000mm to accurately set out horizontals and vertical Ledger spacing). Fit guard rails as indicated. The 1.8 metre centres of the Landing Platform can be used to set out the horizontal Ledgers to the correct centres.

   Please refer to the NASC SG4: 15 document for guidance.

fig 1

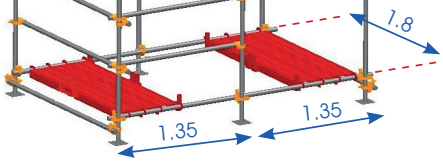
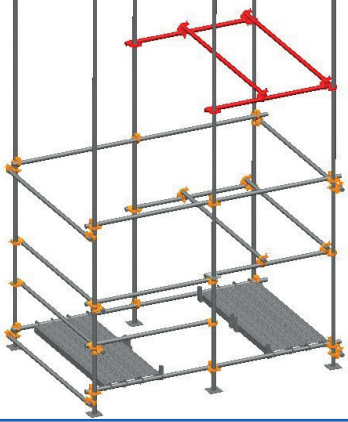


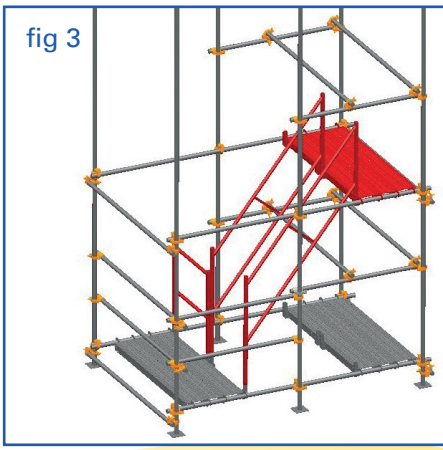
fig 2



2. Using collective measures or personnel fall restraint equipment together with a temporary work platform, install guard rails as indicated. (Fig.2.)

3. Using the temporary Landing Platform at the lower level locate a Landing Platform to the higher Ledger position and at the opposite end of the bay. Ensure all platform locks are engaged onto the Ledger. Fit a Landing Handrail into the taller sockets at the Landing Platform and fit the Banister Handrails into the other taller pockets first which automatically position the Landing Platform correctly, some adjustment may be necessary to ensure alignment.(Fig.3)

fig 3



4. Locate the Stair Unit vertically onto the lower Landing Platform by engaging bottom Stair connections (Fig.4a) into the inner sockets and slowly lower the Stair unit onto the upper Landing Platform (Fig.4b).

   The upper Stair connecting lugs should automatically drop into the pocket. Flick the upper Stair locking connections (Fig.4b) into the same pocket to securely lock the Stair. Fit the connecting pins (Fig.4c) to all the handrail units and secure the handrail clamp (Fig.4d).
   The first lift is now complete.

fig 4

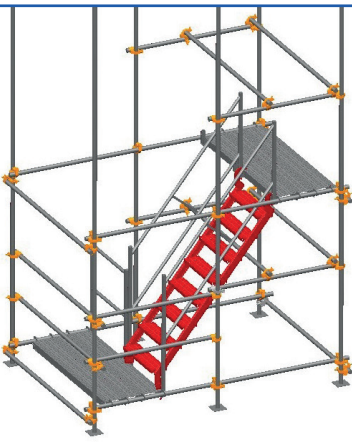


fig 4a

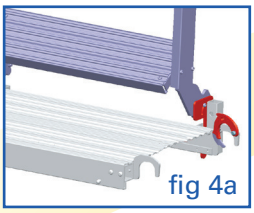


fig 4b

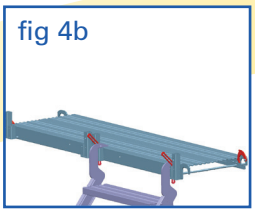


fig 4c

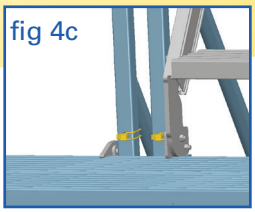


fig 4d

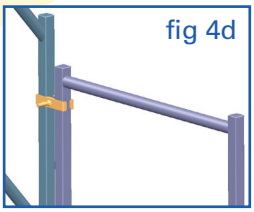


fig 4e

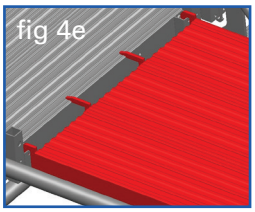


fig 4f

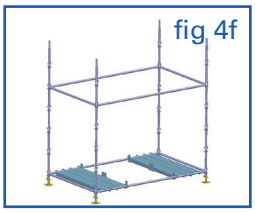


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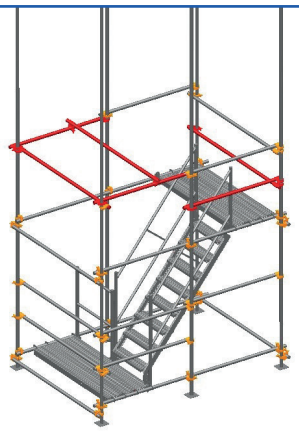
fig 5



5. Using collective measures or personnel fall restraint equipment together with a temporary work platform, install guard rails as indicated. (Fig.5).

6. Locate temporary Landing Platform then fit the Auxiliary Platform between the two Landing Platforms, locate hooks into the pockets (Fig.4e). Fit the Auxiliary Platform Handrail as indicated. (Fig.6).

fig 6

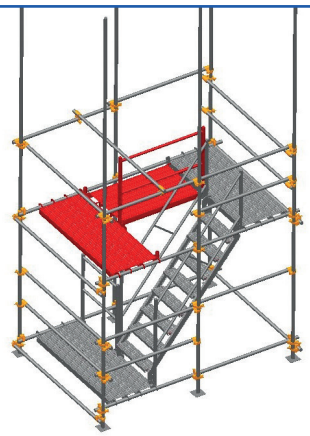
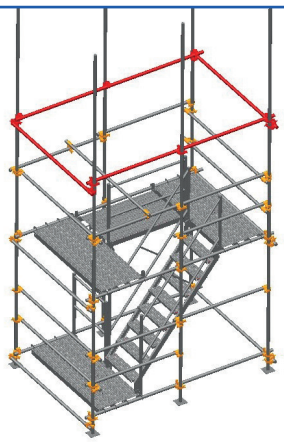


fig 7



7. Install the next level of Ledgers 1.5m or 2m above (Fig.7).

8. Using collective measures or personnel fall restraint equipment together with a temporary work platform, install guard rails as indicated. (Fig.8).

9. Locate a Landing Platform at Ledger position shown ensuring connecting sockets face into the bay. Ensure all platform locks are engaged onto the Ledger. (Fig.9).

fig 8

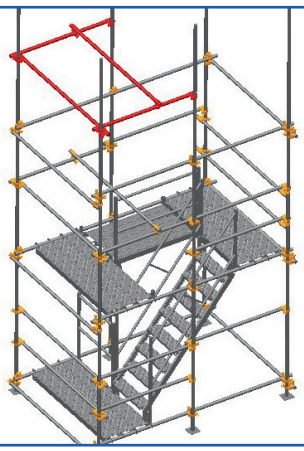
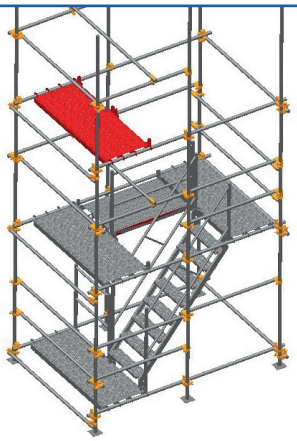


fig 9



10. Fit two Banister Handrails as outlined in note 3.

11. Locate Stair Unit as outlined in note 4. Continue building Stair Tower following the same sequence using either 2.0 metre or 1.5 metre lifts and in any combination to the height required (Fig.11).

fig 10

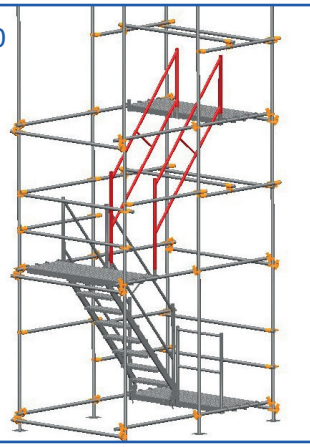
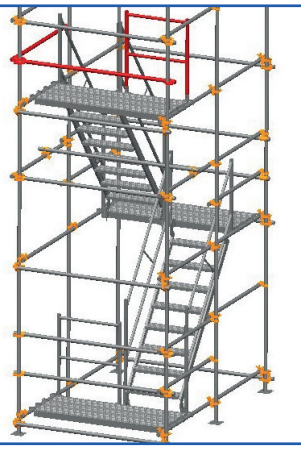


fig 11

12. Once the top platform has been reached install a Landing Handrail and close off Landing Platform with double guardrails. It will be necessary to also close off the main scaffold at both top platform and any intermediate Landing levels which are not boarded lifts that may be used. (Fig.12).

Check all positions accessible via the stairway are adequately boarded and / or guarded.

fig 12



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Inspection & Maintenance

Stair Units

1. Clean off all site debris. **Do not use chemicals containing Acid or Alkali as corrosion damage can occur.**
2. Inspect stiles (side members) for dents or other damage and check the tee-slots for any distortion. If miss-formed or severely damaged then remove from service for further evaluation.
3. Inspect all the Stair treads for security and for evidence of impact damage and where necessary replace damaged components ensuring all fixing bolts are installed and are secure.
4. Ensure all side fixing bolts, connecting the cleat to the stile, are secure and tightened.
5. Check that top and bottom Stair locking mechanisms are free to move correctly and are not damaged. If damage is found then replace components.
6. The top and bottom pairs of Aluminium hooks are unlikely to be damaged other than by abuse. If evidence is found and the stile has not badly deformed then the hook can be easily unbolted and replaced.

The Stair Units are a completely bolted assembly and in the very unlikely event of a bolt working loose, the tread would tend to rattle, and therefore be very easy to identify, making inspection and rectification quick and straightforward.

This assembly method also means that no tread can ever become separated from the Stair Unit since no joint relies on a single bolt.

Banister Handrails and Landing Guardrails

1. Inspect for any distortion, damage or signs of cracked welds as a result of impact or abuse.
2. Check that the Spigot casting is not cracked or broken
3. Replace any missing or damaged post top caps.

Landing Platforms

1. Inspect platform for impact damage and any resulting distortion.
2. Check all platform hooks for damage i.e. bending. Replace damaged items.
3. Check the Stair and Banister Landing Platform sockets are clear of debris, are undamaged and securely attached to the main platform.
4. Check that the locking latch moves freely and is securely bolted to the Hook.

Clamps and Connecting Pins

1. Ensure that all threads are in working orders and liberally spray with WD40 or Scaffolding coupler lubricant.
2. Check that they are complete and stocks are high enough to ensure that each **One-Bay** set is complete.

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Notes

Under no circumstances should any attempt be made to straighten aluminium components, as this could result in serious weakening to the product. In such circumstances remove the item from service for further evaluation.

Weld repairs must be carried out in a workshop environment using argon shielded T.I.G. welding and using compatible filler materials and must only be carried out by competent, trained welders.

If there are any doubts concerning inspection, maintenance or repair refer immediately to your supplier for further guidance.

Transport

1. The Stairs, Landing Platforms and other Aluminium components should be stored and transported in Pallets - Preferably Aluminium or alternatively steel fitted with protective sleeving.

2. Aluminium items can distort if incorrectly or over zealously secured – use ratchet straps with caution.

One Bay Stair System Component Schedule

ALSURE STOCK CODE	STOCK ITEM	Unit Kg	2m	3m	3.5m	4m	4.5m	5m	5.5m	6m	6.5m	7m	7.5m	8m
AS2015	ONE BAY-STAIR UNIT 1.5M	21.80		2	1		3	2	1		3	2	1	
AS2020	ONE BAY-STAIR UNIT 2.0M	24.90	1		1	2		1	2	3	1	2	3	4
AS2003	ONE BAY-BANISTER HANDRAIL 1.5M	6.70		4	2		6	4	2		6	4	2	
AS2002	ONE BAY-BANISTER HANDRAIL 2M	6.70	2		2	4		2	4	6	2	4	6	8
AS040	ONE BAY- LANDING PLATFORM	21.50	2	3	3	3	4	4	4	4	5	5	5	5
AS2019	ONE BAY-LANDING HANDRAIL	4.50	2	2	2	2	2	2	2	2	2	2	2	2
MP224A	ONE BAY-CONNECTING PIN	0.10	8	12	12	12	16	16	16	16	20	20	20	20
MP229A	ONE BAY-TYPE A CLAMP	0.36	2	3	3	3	4	4	4	4	5	5	5	5
ALSURE STOCK CODE	STOCK ITEM	Unit Kg	8.5m	9m	9.5m	10m	10.5m	11m	11.5m	12m	12.5m	13m	13.5m	14m
AS2015	ONE BAY-STAIR UNIT 1.5M	21.80	3	2	1		3	2	1		3	2	1	
AS2020	ONE BAY-STAIR UNIT 2.0M	24.90	2	3	4	5	3	4	5	6	4	5	6	7
AS2003	ONE BAY-BANISTER HANDRAIL 1.5M	6.70	6	4	2		6	4	2		6	4	2	
AS2002	ONE BAY-BANISTER HANDRAIL 2M	6.70	4	6	8	10	6	8	10	12	8	10	12	14
AS040	ONE BAY- LANDING PLATFORM	21.50	6	6	6	6	7	7	7	7	8	8	8	8
AS2019	ONE BAY-LANDING HANDRAIL	4.50	2	2	2	2	2	2	2	2	2	2	2	2
MP224A	ONE BAY-CONNECTING PIN	0.10	24	24	24	24	28	28	28	28	32	32	32	32
MP229A	ONE BAY-TYPE A CLAMP	0.36	6	6	6	6	7	7	7	7	8	8	8	8
ALSURE STOCK CODE	STOCK ITEM	Unit Kg	14.5m	15m	15.5m	16m	16.5m	17m	17.5m	18m	18.5m	19m	19.5m	20m
AS2015	ONE BAY-STAIR UNIT 1.5M	21.80	3	2	1		3	2	1		3	2	1	
AS2020	ONE BAY-STAIR UNIT 2.0M	24.90	5	6	7	8	6	7	8	9	7	8	9	10
AS2003	ONE BAY-BANISTER HANDRAIL 1.5M	6.70	6	4	2		6	4	2		6	4	2	
AS2002	ONE BAY-BANISTER HANDRAIL 2M	6.70	10	12	14	16	12	14	16	18	14	16	18	20
AS040	ONE BAY- LANDING PLATFORM	21.50	9	9	9	9	10	10	10	10	11	11	11	11
AS2019	ONE BAY-LANDING HANDRAIL	4.50	2	2	2	2	2	2	2	2	2	2	2	2
MP224A	ONE BAY-CONNECTING PIN	0.10	36	36	36	36	40	40	40	40	44	44	44	44
MP229A	ONE BAY-TYPE A CLAMP	0.36	9	9	9	9	10	10	10	10	11	11	11	11

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