A Concise Guide To Erecting

The Modular Frame Scaffold System

Australian Standards AS/NZ 1576
Introduction

This pamphlet is intended as reference for builders and other parties who intend to erect and use equipment hired or purchased from Safe High-Ts Aust Pty Ltd. More comprehensive information can be found in the Occupational Health & Safety [Plant] Regulations appropriate to your state and the latest issue Australian Standard “Guidelines for Scaffolding” AS/NZS4576. These documents contain the legal requirements for persons using and erecting Modular Frame Scaffold equipment, and at all times take precedence over this pamphlet.

Who can erect Modular Frame Scaffold Equipment?

A properly constructed Modular Frame Scaffold System offers the best possible work environment for people working at heights. People erecting Modular Frame Scaffold Systems must be appropriately trained and supervised.

Safe High-Ts Aust Pty Ltd therefore recommends that all Modular Frames Scaffolds are erected by persons holding a certificate of competency, however:

- For Modular Frames Scaffold with a working platform height of 4 meters or less, any physically sound person may erect.
- For Modular Frame Scaffolds where a person or object can fall more than 4 meters the person erecting the Scaffold must have a certificate of competency.
- As some Modular Frames Scaffold components are heavy the physical capabilities of persons [erection] erecting the Scaffold must have a certificate of competency.
- As some Modular Frames Scaffold components are heavy the physical capabilities of persons [erection] erecting the Scaffold must have a certificate of competency.
- A minimum number of 2 people are required to erect a Modular Frame Scaffold safely up to the height of 6 meters. Above 6 meters a crew size of 3 is recommended.
IMPORTANCE INFORMATION

1. This confirmation applies only to the above design, which has been notified in accordance with the above-named Regulations. WorkCover has not verified that the designer has complied with the design obligations prescribed by the Regulations or the above mentioned technical standards or engineering principles.

2. The plant owner will require this confirmation and therefore a copy of it should be supplied to the manufacturer, so that it can in turn be provided to the supplier and owner with the plant or equipment.

3. The Regulations require the designer to keep and maintain in a suitable state for examination all records required by the Regulations for a period of 10 years.

4. WorkCover reserves the right to audit the notified design at any future time to assess compliance with the above Acts and Regulations. If an audit is undertaken, the notifier or the plant owner or both may be asked to supply detailed information relating to the design of the plant. Design systems of work and documentation may also be audited. If an audit identifies non-compliance with the Acts and Regulations, all plant built to that design may require modifications and, in some cases, may be prohibited from use.

5. This confirmation is automatically invalidated if the design is altered to an extent that requires new measures to control risk. A person must not use, cause or allow plant manufactured to the altered design to be used at a workplace unless notification of the alteration, on the prescribed form, has been confirmed by WorkCover.

6. The above confirmation number should be quoted in all future correspondence to WorkCover reporting this design. Any queries should be addressed to WorkCover's Licensing Branch Telephone (03) 5941 0500.

KATRINA HANSEN
Manager, Licensing Branch
Coupler Information

We make available 42.7 mm Drop Forged 90 degree & swivel couplers These can be used for all application.

The correct placement of supportive ties are critical to ensuring the stability of any scaffold, and consequently the safety of persons using it. Work should not proceed on the scaffold until the supportive ties are secured in the correct position. Refer to Safe Working Load Chart.

Safe High-Ts Australia has two types of couplers available.

One coupler is a pressed steel design and is exclusively for the 42.7 mm O.D tube size.

PRESSED STEEL COUPLERS SHOULD ONLY BE USED FOR TIE PURPOSES.

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Increasing Modular Frame Height.

7. Install kick boards to working platform.

8. Place a closing frame onto the end bay Modular Frame. This closes off and guards the bay end, secure with spring lock pins.

9. A horizontal frame is required to be installed every 3 lifts of bays, if captive steel boards are not used.

10. When in place the horizontal frame is locked, with the locks on each end of this frame.

Conclusion

The occupational Health and Safety Act (Plant Regulations) legally govern the use and erection of Modular Frame Scaffold equipment. The process requires a certain level of expertise and knowledge. Safe High-Ts Aust. Pty. Ltd. employs a highly trained team of professionals. As a valued customer you are encouraged to contact us whenever you require advice regarding the correct use of our products. Please contact one of our sales staff on,

Ph: {03} 5277 0422 Fax: {03} 5277 0433,
12 Surrey Street, Nth Geelong, 3215.
Victoria, Australia.
Assembling a Modular Frame Base.

7. Fit the second cross brace to the opposite side of the Modular Frame.

8. Now the assembly can be gently placed down.

9. Place a 3rd sole board and screw jack 1830mm from the center of the 1st screw jack. Keep the same required distance from the building.

10. Now place the 4th sole board and screw jack 1219mm at right angles to 3rd screw jack. (width of frame)

11. Place another Modular Frame onto screw jacks 3 & 4.

12. Fit the cross braces to the Modular Frame, check that all lock pins are locked properly. The bay will stand on its own.

Increasing Modular Frames Height.

1. Start by installing 2 join pins in to the bottom of the Modular Frame.

2. Secure join pins using a spring lock pin, repeat step 1 and 2 for the second Modular Frame.

3. Place Modular Frame into the top of the lower frame. Secure against dislodgement and uplift by installing spring lock pins.

4. Install the second Modular Frame into the lower frame. Fit spring lock pins to secure join pins.

5. Fit 2 cross braces to Modular Frames ensure lock pins are securing braces.

6. If this level is to be used as a working platform install guard-rails on the lower pins.
Joining Frames at different angles.

3 Lift a Modular Frame onto the screw jacks. And secure frame with 2 couplers and ensure the frame is parallel with other frames.

4 Fit cross braces to the Modular Frame, make sure they have been locked correctly. Place 2 more sole boards and screw jacks, 1,830 mm away from Modular Frame.

5 Fit another Modular Frame onto screw jacks and fit cross braces on lock pins. Check that bay is at right angles to other bays.

6 Place a metal board onto frames and check level, adjust if required. Then fill bay with captive metal boards.

7 Complete bay by installing Guard-rail posts, hand rails and captive metal boards (kick boards).

Assembling a Modular Frame Base.

13 Place a metal floor board onto the frames. Adjust till level, by moving a frame up or down evenly with the screw jacks.

14 Place spirit level on top of the Modular Frame transom and adjust screw jacks till the frames are level. Adjust both frames.

15 You have now erected one bay of the Modular frame System. Make sure the bay is parallel to the building and is square, adjust if required.

16 The working platform is created by placing 5 approved captive metal boards on the Modular Frame transom Support.

16a At this stage a ladder access can be created. Using A Ladder access floor.

17 Access can be gained by placing a ladder into the ladder access floor. Fix Ladder see step 21.
Assembling a Modular Frame Base.

18 Before climbing onto access bay, prepare 4 corner guard-rail posts. Fit kickboard clamp to post and secure them so they don’t slide.

19 Fit guard-rail posts to the 4 corners of the Modular Frame Unit, secure them using spring lock pins.

20 Now fit top and mid-rails to all open sides of platforms.

21 The ladder should now be secured, use 4 x 90° Pressed steel or forged couplers, fit 2 to corner posts, secure a brace pipe and use 2 couplings to hold ladder in place.

22 Insert the appropriate size captive steel board to form a kickboard underneath all handrails.

23 Lower the kickboard locks into place to secure kickboard. Tighten screws on the guard-rail posts.

Assembling a Modular Frame Base.

24 Modular frame bay with access trapdoor is now completed. Repeat steps 7 to 23 as many times as required to set out the required length of your Modular framed system.

Joining Frames at different angles.

1 Start by fitting two 90° couplers and brace pipe between frames. Pipe must be level and secure.

2 Place 2 sole boards and screw jacks below the brace pipe, measure 1219mm apart.
Assembling a Modular Frame Base.

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6 If this level is to be used as a working platform install guard-rails on the lower pins.
### Assembling a Modular Frame Base.

1. Start by placing a sole board on the ground, ensuring that it will bear load evenly along its full length.

2. Place an adjustable screw jack on the middle of sole board, the required distance from building.

3. Measure 1219mm (width of frame) from the center of 1st screw jack. Then place the 2nd sole board and screw jack.

4. Lift a Modular Frame onto the screw jacks. Frame size shown 1700 x 1219mm.

5. While one person holds the Modular Frame upright, the second person fits a cross brace to the locking pins.

6. Ensure the cross brace ends are locked to frames correctly before proceeding. (Lock pins must be vertical to be locked.)

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### Increasing Modular Frame Height.

7. Install kick boards to working platform.

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**Conclusion**

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### CONFIRMATION OF A NOTIFIED DESIGN

**Occupational Health and Safety Act 1985**  
**Equipment (Public Safety) Act 1994**

**Or13 (Plant) Regulations 1995**  
**Equipment (Public Safety) (General) Regulations 1995**

**Plant Type:** Prefabricated Scaffolding

**Representational Drawing(s):** Scaffolding Items Fax dated 16 June 2003

**Design Description andExtent:** Modular Frame Prefabricated Scaffolding

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<tr>
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**Confirmation Number:** V0120208  
**Date of Confirmation:** 16 June 2003

Published technical standards or engineering principles listed by designer and confirmed by design verifier: AS 1576.1 SCAFFOLDING GENERAL REQUIREMENTS, AS4109 STEEL STRUCTURES CODE & AS PER COMPUTATIONS, AS 1576.3 and AS 1577.
CONFIRMATION OF A NOTIFIED DESIGN

OHS (Plant) Regulations 1995
Equipment (Public Safety) Act 1994
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cont ... Page 2 of 2 Design Confirmation No. V012008

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KATRINA HANSEN
Manager, Licensing Branch

Modular Frame Components

Handrail post  Press Steel coupler  Spring lock Pin
Kick board clamp  Joining pin  Drop Forged Coupler
Cross brace  Handrails  Join Coupler  Screw jack  Base plate
Captive Metal Boards  Truss  Access Frame  Access Trapdoor

Safe High-qs
Modular frame system
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Introduction

Who can erect Modular Frame Scaffold Equipment?

A lift is the vertical distance between two transoms. This area represents six bays of Modular Frame one lift high

The maximum lift is two meters. This area represents one bay of Modular Frame 4 frames high

Modular Framing with a TWL height up to 45 meters may use ONE heavy duty working platform in any one (1) bay.

One medium duty working platform in any one (1) bay.

Three light duty working platforms in any one (1) bay.

*TIE POSITIONS—the minimum requirement is for a positive Tie every forth bay and every second lift. If additional working platforms are required, or the Modular Framing is to be contained with shade cloth or similar, it may need to be increased. A qualified person should be consulted.

REQUIREMENTS FOR WORKING PLATFORMS

- Maximum total load
- Maximum weight of any materials or people per platform
- Minimum width

Heavy Duty

200 kg

100 kg

900 mm

Medium Duty

150 kg

900 mm

Light Duty

100 kg

450 mm

Ground conditions and the supporting structure must be checked in accordance with AS/NZS 1576.1 and AS/NZS 4576.

Page 2
Modular Frame Scaffold System

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Australian Standards AS/NZ 1576