

# MI TOWER LIFTSHAFT



MI TOWER LIFTSHAFT ASSEMBLY GUIDE (Rev.00 16-08-2022) EN 1004-2-en



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# INTRODUCTION

MI TOWER LIFTSHAFT is a versatile and high quality mobile access tower providing a work platform for one person. It is designed in accordance with the latest testing and quality standards. MI TOWER LIFTSHAFT complies with BS EN1004-1, BS 1139-6 and WAHR with vertical ladder access and designed for Class 3 loadings.

Our priority is to help ensure the safe operation of our products, so please pay particular attention to the safety tips on pages 7 & 8.

We want you to enjoy the safe and responsible use of MI TOWER LIFTSHAFT with the minimum of fuss and this guide is designed to get you up and running as quickly and as safely as possible.

We recommend that you read this guide prior to assembling and using your MI TOWER LIFTSHAFT. This instruction manual shall be available on the location of use of your MI TOWER LIFTSHAFT . Your MI TOWER LIFTSHAFT shall only be used in accordance with this assembly guide without modification and national regulations.

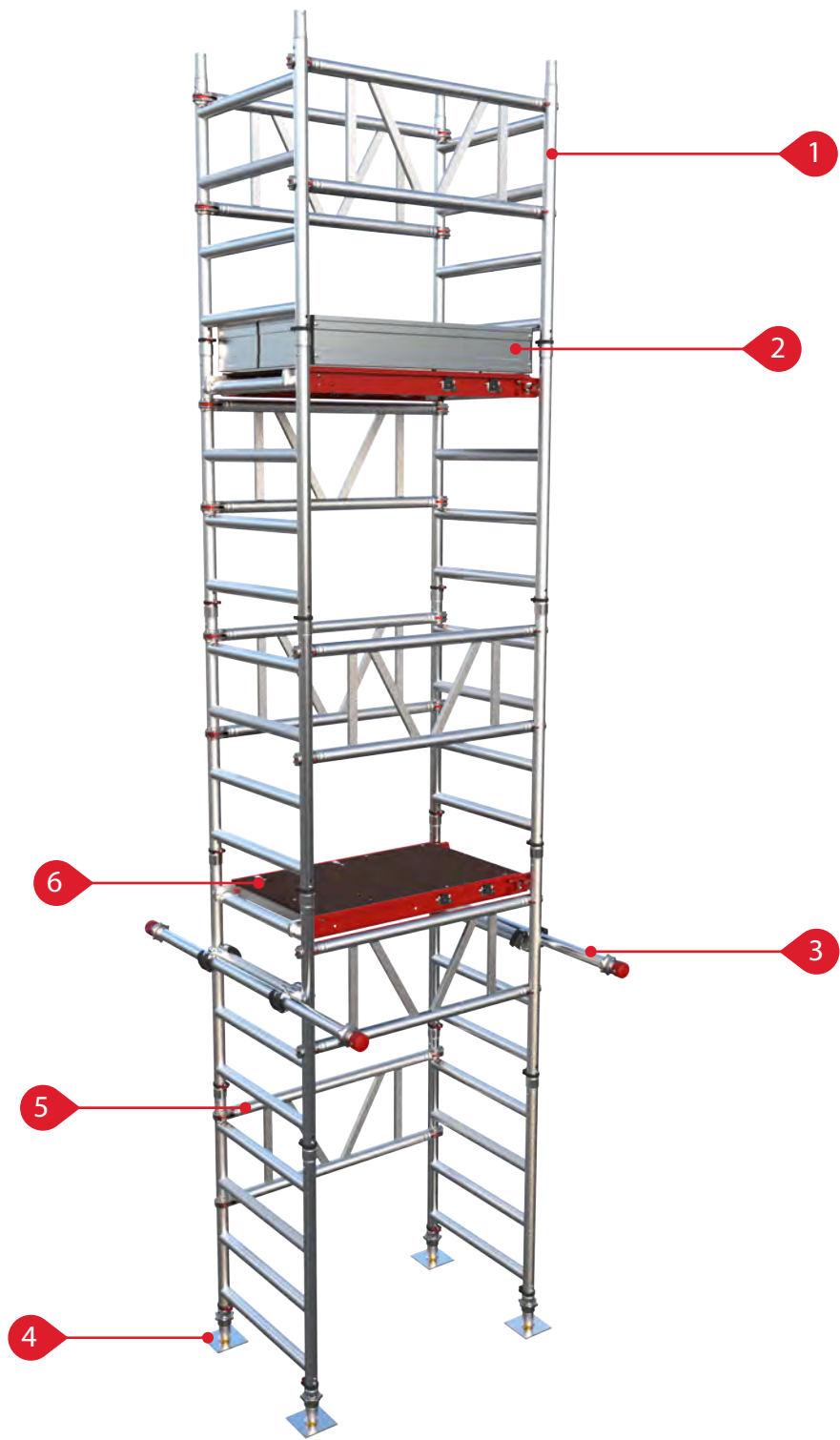
User training courses cannot be a substitute for this assembly guide and should only compliment it. This product should only be used in accordance to this assembly guide.

Only original Pop Up Products MI TOWER LIFTSHAFT components, in undamaged condition as specified in this assembly guide, shall be used to assemble this access tower.

MI TOWER LIFTSHAFT, which has been designed in accordance with EN 1004-1 & BS 1139-6 are not anchor points for fall arrest equipment and working is only permitted on a platform with complete side protection, including guardrails and toeboards.

**Visit** PASMA and HSE for further reference.

# KNOW YOUR MI TOWER LIFTSHAFT



## PARTS LISTING

1	4 RUNG FRAME	4	ADJUSTABLE LEG & SWIVEL BASEPLATE
2	TOE BOARD	5	GUARDRAIL BRACE PANEL
3	HORIZONTAL PROP	6	HATCH PLATFORM

# KNOW YOUR MI TOWER LIFTSHAFT COMPONENTS

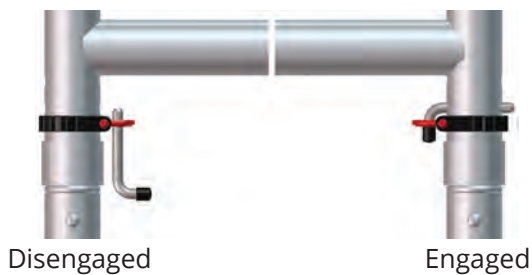


## 1 GUARDRAIL BRACE PANEL

Claws are fitted to the guardrail brace panels and each has an automatic locking jaw which is released by simply moving the jaw's trigger. The claw must only be attached to the frame with the opening facing outward. Attachment with the jaw's opening facing inward will not fully protect the user if lent upon and may cause serious injury or death. Always ensure that each claw is positively locked in position before using your tower.

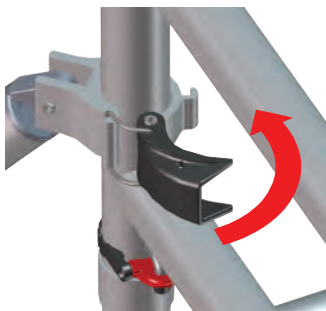
## 2 FRAME CLIPS

The frame clip's pin locates into a retaining hole in the frames to lock tower sections together when placed one on top of the other. The pin is locked in place by a red tab to ensure that it remains in place. From the disengaged position, pivot the pin / tab to bring the pin horizontal. Insert the pin fully through the retaining hole with its tail pointing down. Next flip the tab vertically to lock the pin in place. Removal is simply a reversal of the fitting sequence.



## 3 STABILISER COUPLER CLAMP

The coupler clamps are used to secure the stabilisers to the tower's vertical tubing. With the clamp jaw open, offer it to the tube. Bring the jaw around the tube and set the buckle on to the hook, then close the clamp arm to lock the stabiliser in position. A similar clamp is fitted to the stabiliser extension leg.



## 4 WIND-LOCK CATCH

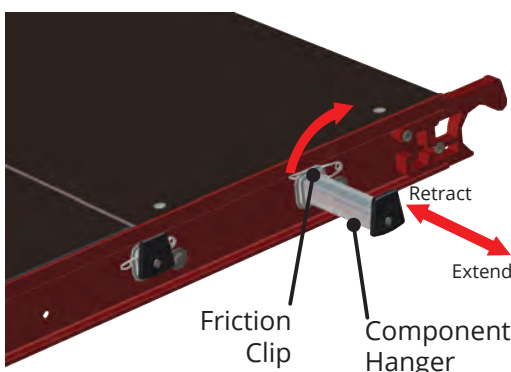
The wind lock catches comprise of a set of auto-engaging hooks at one end of the platform and a single gravity type catch at the other. The purpose of these devices is to prevent up-lift of the platforms in windy conditions. To engage the auto wind lock (AWL) simply tilt the platform at the angle shown before placing the hooks onto the rung of the end frame. Lower the opposite end of the platform onto the opposite end frame rung and the gravity type lock will automatically engage. Simply lift and hold the gravity lock before tilting the platform to dis-engage the opposite AWL hooks when removing the platform on tower disassembly.



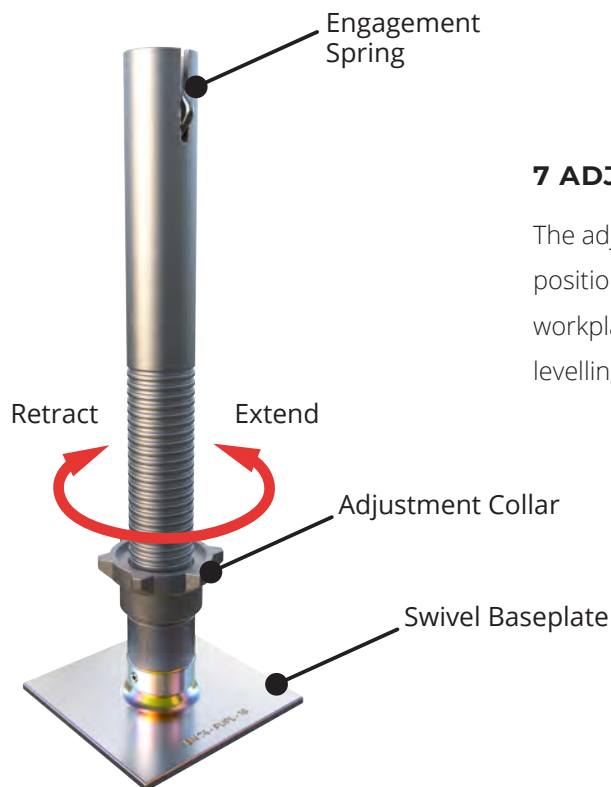
## 5 PLATFORM WITH BUILT IN COMPONENT HANGERS

To enable one man to erect MI TOWER products, each hatch is fitted with four component hangers which are stowed (two either side) within the platform's frame. The hangers can be extended when needed and retracted when not.

To extend a hanger simply pull up the friction clip and pull the component hanger until it stops. To retract the hanger, simply reverse the procedure.

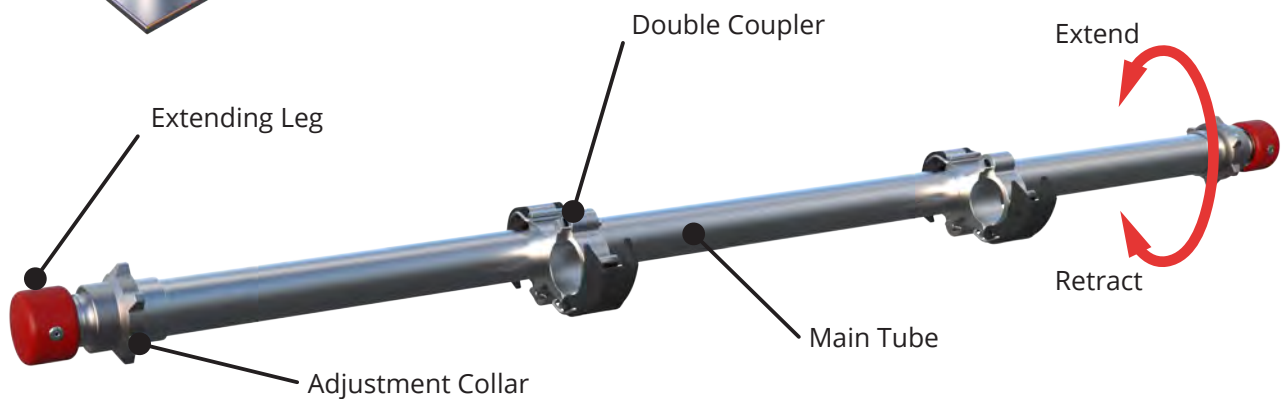


# KNOW YOUR MI TOWER LIFTSHAFT COMPONENTS



## 7 ADJUSTABLE LEG & SWIVEL BASEPLATE

The adjustable leg and swivel baseplate allows for accurate positioning of your MI TOWER LIFTSHAFT in relation to your workplace. The leg can be extended or retracted to allow for levelling.



## 8 HORIZONTAL PROP

The horizontal prop is used to brace the MI TOWER LIFTSHAFT tower against the side walls of the liftshaft. The prop is attached to the end frame horizontal rungs using the double couplers. The couplers can also be moved along the main tube to position the prop in the most favourable position, after which, the extending legs can be screwed out using the adjustment collars to securely brace the tower against the liftshaft walls.

## INSPECTION CARE & MAINTENANCE

Keep all components clean and free from contaminants. If any part becomes contaminated with paint, acid oils or similar products the tower must not be used until the effected components have been cleaned and re-inspected.

All components should be stored in a dry location where they will be protected from adverse weather conditions. When storing or transporting, keep frames upright and platforms flat. Do not stack excessively to avoid stress damage.

Contact POP UP Products for further details on maintenance and repair of your MI TOWER LIFTSHAFT components.



# MI TOWER LIFTSHAFT COMPONENT MATRIX

COMPONENT SCHEDULE		INTERNAL USE ONLY														
DESCRIPTION	COMPONENT WEIGHT	WH 4.2	6.2	8.2	10.2	12.2	14.2	16.2	18.2	20.2	22.2	24.2	26.2	28.2	30.2	32.2
		PH 2.2	4.2	6.2	8.2	10.2	12.2	14.2	16.2	18.2	20.2	22.2	24.2	26.2	28.2	30.2
SWIVEL BASEPLATE	2.50	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
220mm ADJUSTABLE LEG	0.85	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
4 RUNG FRAME	3.58	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62
HORIZONTAL PROP	4.19	2	2	4	4	6	6	8	8	10	10	12	12	14	14	16
HATCH PLATFORM	8.56	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
GUARDRAIL BRACE PANEL	3.34	4	7	10	13	16	19	22	25	28	31	34	37	40	43	46
Toeboard Set	5.33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL TOWER WEIGHT (kg)		71	104	145	178	219	252	294	326	368	401	442	475	516	549	590

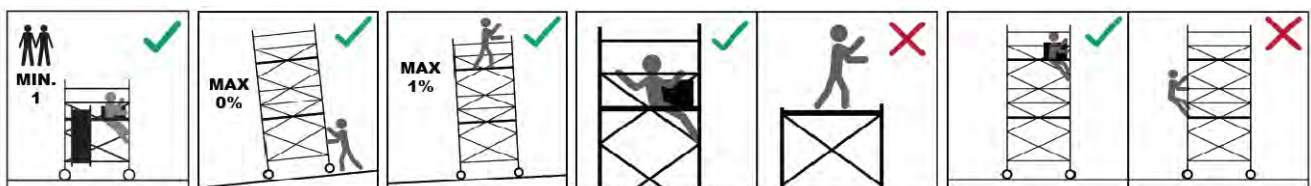
(Working and Platform heights are measured from underside of lowest base plate)

## BUILD INFORMATION

For every 2m lift required, add an additional four 4 rung frames, one hatch platform and three guardrail brace panels. A pair of horizontal props must be placed at the 2m level and then at 4m intervals thereafter.

## SAFETY DOS AND DON'TS - ALWAYS

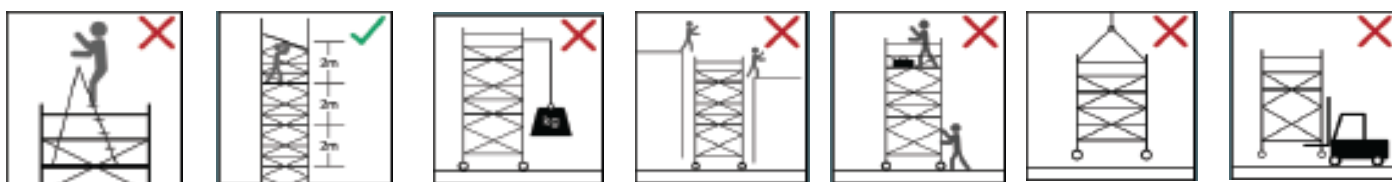
- ALWAYS** Read and understand this guide before you begin assembly.
- ALWAYS** Ensure that all safety requirements are met and that MI TOWER LIFTSHAFT is the correct access solution for the task you wish to perform.
- ALWAYS** Ensure that MI TOWER LIFTSHAFT is assembled and dismantled by a qualified, competent person.
- ALWAYS** Cordon off the work area creating a zone with a radius that is 1m greater than the total height of MI TOWER LIFTSHAFT.
- ALWAYS** Wear the correct Personal Protective Equipment for the task being performed. Gloves, steel toecap boots, a hard hat and suitable clothing must be worn by all persons.
- ALWAYS** Tie back long hair and remove items of loose jewellery.
- ALWAYS** Perform a full risk assessment prior to assembling or using MI TOWER LIFTSHAFT and abide by your findings.
- ALWAYS** Prevent access to unauthorised persons if you have no other option but to leave MI TOWER LIFTSHAFT unattended and if this is not possible then MI TOWER LIFTSHAFT must be dismantled.
- ALWAYS** Make tools and materials required for the assembly of your MI TOWER LIFTSHAFT are made available on site.
- ALWAYS** Ensure you properly assess the risk/method if tools or materials are hoisted to the platform via a rope.
- ALWAYS** Access platforms from within MI TOWER LIFTSHAFT and via the 4 rung frames positioned at the platform's trap door end. Keep your feet in the middle of the rungs and grip the upper rungs with your hands.
- ALWAYS** Erect MI TOWER LIFTSHAFT on smooth level ground that is capable of supporting its own weight, the user and any tools or materials without subsidence and free of obstructions.
- ALWAYS** Use your MI TOWER LIFTSHAFT in accordance with the instructions contained within this assembly guide.
- ALWAYS** Use your MI TOWER LIFTSHAFT in accordance with National Regulations.
- ALWAYS** Remove persons and loose materials from your MI TOWER LIFTSHAFT before attempting to move it.





## SAFETY DOS AND DON'TS - NEVER

- NEVER** Use MI TOWER if you don't understand something in this guide; please contact the supplier for advice.
- NEVER** Assemble, use, move or dismantle MI TOWER LIFTSHAFT if you are tired or unwell or if you are under the influence of alcohol or drugs.
- NEVER** Use MI TOWER LIFTSHAFT outdoors. It is an internal product only.
- NEVER** Assemble or use MI TOWER LIFTSHAFT near overhead hazards such as power lines that are within reach of MI TOWER LIFTSHAFT or the user.
- NEVER** Ascend or descend your MI TOWER LIFTSHAFT if both hands are not free.
- NEVER** Add banners, notice boards, etc. to MI TOWER LIFTSHAFT or suspend weights from the tower.
- NEVER** Use MI TOWER LIFTSHAFT if contaminated by paint, chemicals, etc.
- NEVER** Overload the platforms (see component matrix page 5).
- NEVER** Suspend MI TOWER LIFTSHAFT from another structure.
- NEVER** Lean from MI TOWER LIFTSHAFT and never apply undue side force (MAX 200N)
- NEVER** Stand on the guardrails, toe boards, boxes (or similar) to gain extra height. If the working height is insufficient either construct MI TOWER LIFTSHAFT to the required height or use an alternative method.
- NEVER** Use damaged components in your MI TOWER LIFTSHAFT assembly.
- NEVER** Use more than one working platform on your MI TOWER LIFTSHAFT.
- NEVER** Allow more than one person on a working platform.
- NEVER** Use MI TOWER LIFTSHAFT as a means to enter or exit other structures, or as a means of edge protection.
- NEVER** Exceed a distance between platforms of 2.25m except for the first platform which can be 3.40m.



# BEFORE YOU START

## PREPARATION

The floor area must be clear of any obstructions including materials and debris. Check that you have all the components necessary to construct the tower height you require. Check also each component for condition and correct function. If any part is missing or damaged/not working correctly it must be replaced before assembling

## 3T (THROUGH THE TRAPDOOR) SYSTEM

The 3T method of construction has been developed to reduce the risk of an erector falling from a tower during construction. The erector must sit on the platform with legs through the hatch and feet on the frame rungs when attaching guardrail brace panels above the platform. This ensures the erector is always protected by a set of guardrail brace panels.

## TYING IN

You should consider tying in the tower to add stability, but this may only be carried out by a suitably trained person.

## BALLAST

Where shown in the component list, ballast must be used to stabilise against overturning. Only use solid materials as ballast (i.e. no loose materials) and position to avoid overloading individual components. Ballast should be supported by the base of your MI TOWER and securely fastened to prevent removal.

## ASSEMBLY GUIDE

These instructions must always be made available to the user. If replacement copies are required, please contact your supplier. This assembly guide is to be made available on the location of use of this MI TOWER LIFTSHAFT.

## DAMAGED COMPONENTS

Regularly inspect all components for damage. Damaged components must be quarantined so that they cannot be used. Where safe to do so, the component can be repaired but only by a qualified repairer. If in doubt contact your supplier for advice.

## DISMANTLING YOUR MI TOWER LIFTSHAFT

MI TOWER is easily dismantled by simply reversing the erection procedure. Make sure that the component hangers are evenly loaded to ensure your MI TOWER remains balanced. You must, however, be protected by guardrail brace panels when standing on any platform and ensure that you use the 3T method when removing guardrail brace panels.

## AFTER ASSEMBLY

After assembly the following information needs to be displayed on the tower and should be clearly visible from the ground. (e.g. on a tag)

- The name & contact details of the responsible person
- If the tower is ready for application or not.
- The load class and Uniformly Distributed Load.
- If the access tower is intended for indoor use only.
- The date of assembly.

# GETTING STARTED

## GETTING STARTED

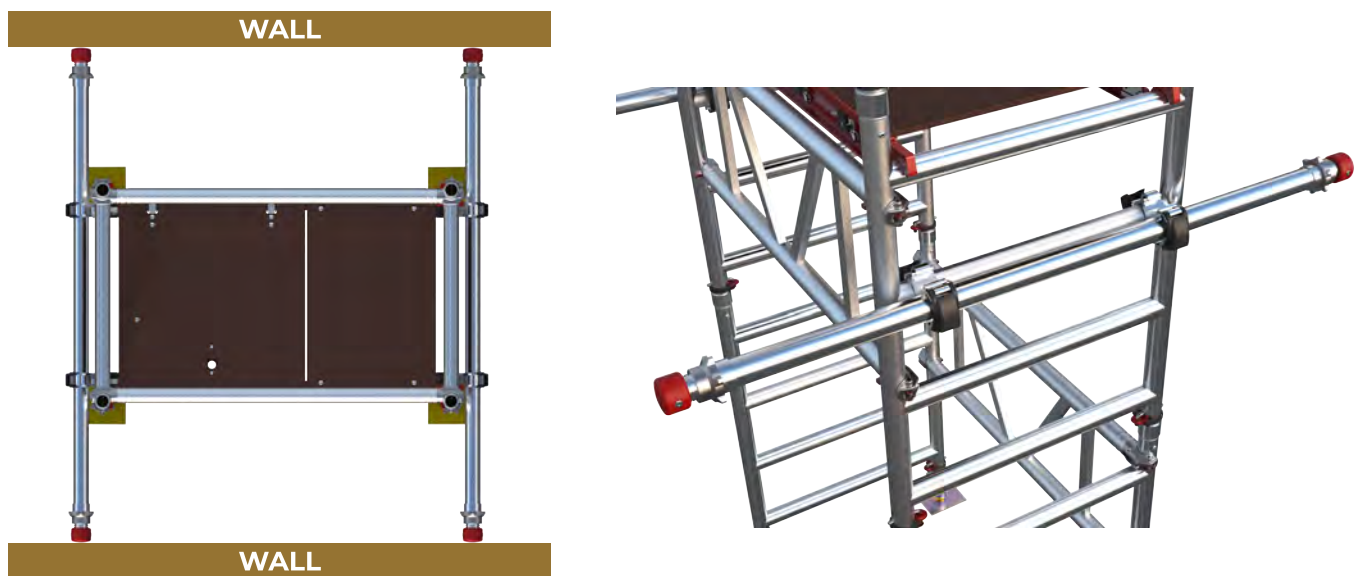
MI TOWER LIFTSHAFT requires only one person to assemble and dismantle it. Your MI TOWER LIFTSHAFT is supplied with uniform 1m high rung frames which can be used at any stage of the assembly. During erection, the frames may be connected together to create 2m high frames which makes assembly both quicker and easier.

## HORIZONTAL PROPS

MI TOWER LIFTSHAFT must be adequately propped or tied to resist overturning / lateral movement. A pair of horizontal props must be placed at the 2m level and then at 4m intervals thereafter.

To improve stability, additional props can also be added at lower levels.

The method illustrated below shows the use of the horizontal props.



The prop is attached to the end frame horizontal rungs using the double couplers. The couplers can also be moved along the main tube to position the prop in the most favourable position, after which, the extending legs can be screwed out using the adjustment collars to securely brace the tower against the liftshaft walls.

## MOVING YOUR MI TOWER LIFTSHAFT

MI TOWER LIFTSHAFT tower system must not be moved once erected

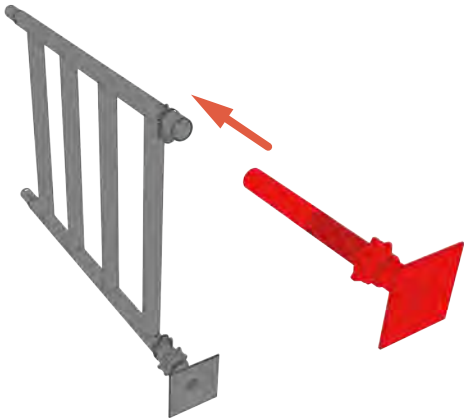
Always dismantle it and rebuild at the new location.

Use the 10 point pre-use safety checklist found on page 16 before attempting to use the tower.

# MI TOWER LIFTSHAFT 6M - ASSEMBLY

## STEP 1

Fully insert the adjustable legs with swivel baseplates into two frames, turning the leg's height adjustment collar to bring each leg 25mm from the lowest position.



## STEP 2

Attach a guardrail brace panel to the vertical tube of one frame with the upper claw positioned above the fourth rung and with all claws facing outward. Make sure the claws are correctly locked on to the frame tube. Now attach the second frame to the guardrail brace panel to create the base frame assembly. Using a spirit level as a guide, adjust each leg to bring the base square, level and within an inclination of 1%.



## STEP 3

Construct two sets of conjoined frames, these will give you two 2m sections and will speed up the erection process. Release the frame clips on one four rung frame and fit it on to a second four rung frame. Apply the frame clips and ensure they are correctly locked. Repeat this with the second set. Fit one set of conjoined frames to a base frame and apply the frame clips. Repeat this with the second set. Fit one set of conjoined frames to a base frame and apply the frame clips. Repeat this with the second set.

## STEP 4

Next, attach one guardrail brace panel with its lower jaw positioned above the sixth frame rung. It must be fitted on the opposite side to the first guardrail brace panel to ensure stability. Ensure all claws are facing outward and correctly locked on to the frame tube.

# MI TOWER LIFTSHAFT 6M - ASSEMBLY

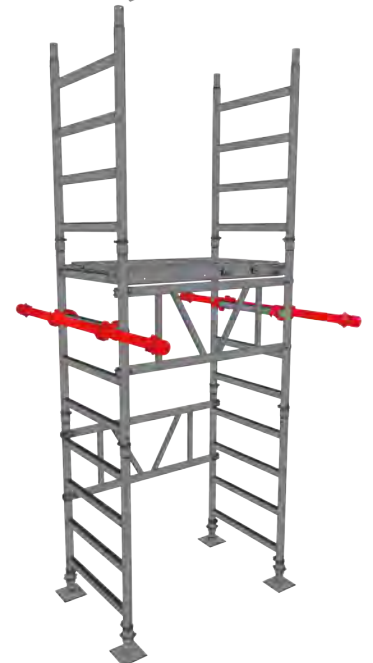
## STEP 5

Stand inside the tower and fit a platform on to the eighth rung, making sure that the wind-lock catches engage.



## STEP 6

Fit a horizontal prop to each side of the tower. Position the props coupler clamps on the seventh rungs. Adjust each prop's length so they are in contact with the walls of the liftshaft. Make sure all coupler clamps are correctly secured. Extend and lock the four component hangers located on either side of the platform.



## STEP 7

Place three guardrail brace panels on to one set of hangers and a pair of eight rung conjoined frames on the other side. Enter the tower framework and climb the frame rungs until you are half way through the platform's trap door. Now manoeuvre yourself so that you are sitting on the platform, with your legs through the trap door and your feet on the frame rungs. From this position, you should take a guardrail brace panel, one at a time, and attach so that the upper jaws are positioned above the twelfth rung. With both panels in position, you may access the platform.



# MI TOWER LIFTSHAFT 6M - ASSEMBLY

## STEP 8

Fit one set of conjoined frames to each end of the tower and apply the frame clips. Next, attach the guardrail brace panel with its lower jaw positioned above the fourteenth frame rung. Ensure all claws are facing outward and correctly locked on to the frame tube. Descend the tower and from the ground place two guardrail brace panels onto the hangers on one side of the platform then a platform on the other side.



## STEP 9

Access the tower then carefully fit the second platform on to the sixteenth rung, making sure that the wind-lock catches engage. Extend and lock the four component hangers located on either side of the platform. Transfer the two guardrail brace panels to the component hangers on the second platform.



## STEP 10

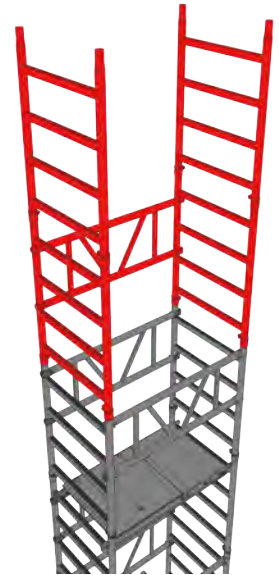
Position yourself so that you are half way through the second platform's trap door. Now manoeuvre yourself so that you are sitting on the platform, with your legs through the trap door and your feet on the frame rungs. From this position, you should take each of the guardrail brace panels, one at a time, and attach so that the upper jaws are positioned above the twentieth rung. Descend the tower and from the ground place three guardrail brace panels onto the hangers on one side of the platform then a set of toe boards and a platform on the other side.



# MI TOWER LIFTSHAFT 6M - ASSEMBLY

## STEP 11

Transfer the components from the first platform up to the second platform. Access the second platform level and fit one set of conjoined frames to each end of the tower and apply the frame clips. Next, attach the guardrail brace panel with its lower jaw positioned above the twenty-second rung. Ensure all claws are facing outward and correctly locked on to the frame tube.



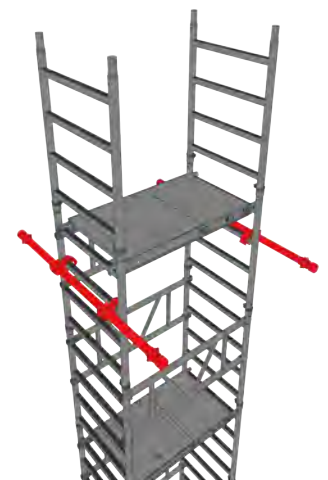
## STEP 12

Access the tower then carefully fit the third platform on to the twenty-fourth rung, making sure that the wind-lock catches engage. Extend and lock the four component hangers located on either side of the platform. Transfer the two guardrail brace panels and the set of toe boards to the component hangers on the third platform.



## STEP 13

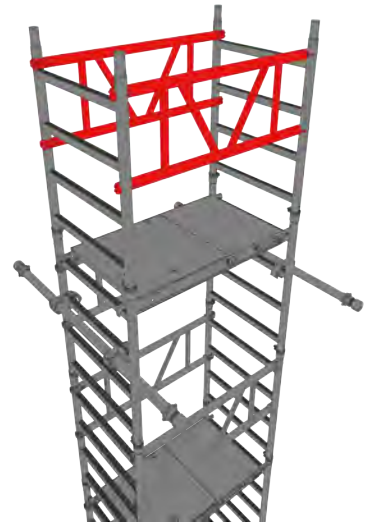
Fit a horizontal prop to each side of the tower. Position the props coupler clamps on the twenty-third rungs. Adjust each props length so they are in contact with the walls of the liftshaft. Make sure all coupler clamps are correctly secured.



# MI TOWER LIFTSHAFT 6M - ASSEMBLY

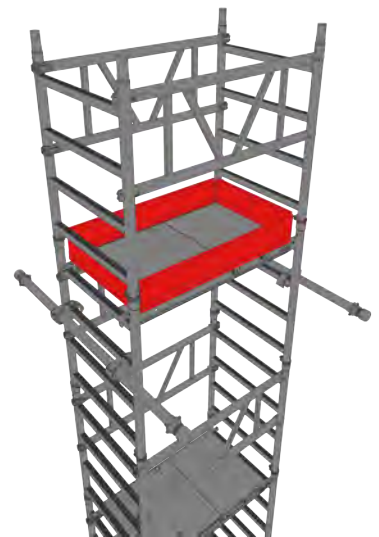
## STEP 14

Position yourself so that you are half way through the third platform's trap door. Now manoeuvre yourself so that you are sitting on the platform, with your legs through the trap door and your feet on the frame rungs. From this position, you should take each of the guardrail brace panels, one at a time, and attach so that the upper jaws are positioned above the twenty eighth rung.



## STEP 15

With both panels in position, you may access the platform. Unfold the toe board set and position so that they sit on to the outer edge of the platform. Finally, retract all hangers and the tower is not complete and ready to use.



## INTERMEDIATE WORK PLATFORMS

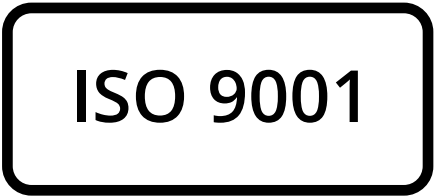
Any platform fitted to the tower at any stage may be used as a work platform, provided toe boards and guardrail brace panels are fitted.

# 10 POINT PRE-USE SAFETY CHECKLIST

## 10 POINT PRE-USE CHECKLIST FOR USERS

1	BEFORE USE	Ensure tower is correct, complete and level.
2	COMPONENTS	Check all components are free from damage.
3	ENVIRONMENT	No environmental changes have influenced the safe use of the tower.
4	HORIZONTAL PROPS	Check they are secure and correctly attached.
5	GUARDRAILS	Ensure all platforms are fully enclosed by guardrails.
6	BRACE CLAWS	Check they are locked correctly.
7	WIND LOCK CATCHES	Ensure they are engaged.
8	FRAME CLIPS	Ensure they are engaged.
9	TOE BOARDS	Check they are correctly positioned on all working platforms.
10	SCAFF TAG	Ensure the tag is correctly filled out, up to date and visible from the ground.

REGISTRATIONS





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