alto
ACCESS PRODUCTS

ALTO MEDIUM DUTY ADVANCED GUARDRAIL TOWER

Mobile Aluminium Access Tower

ISSUE 3

Instruction Manual EN 1298-IM-EN

The ALTO MD AGR Tower is certified to BS EN 1004:2004

Advanced Guardrail Method

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LAKESIDE INDUSTRIES

Introduction

Please read these instructions carefully and ensure that you fully understand all of the information contained herein. All of the information in this document is vital for the safe utilisation of your Alto Medium Duty Tower.

All Alto Access products are professional quality engineered equipment designed primarily with safety in mind and meet or exceed all standards, recommendations and guidelines. Used properly, Alto access equipment will keep you safe when working at height.

This manual contains all of the information necessary to correctly assemble your Alto Medium Duty mobile access tower and incorporates all of the requirements of the PASMA AGR method of assembly as endorsed by the HSE.

This manual should be used in conjunction with your Risk Assessment and Method Statement and in line with the Work at Height Regulations 2005 which place an obligation on employers to eliminate or minimise risks. This manual must be made available to the user/assembler at all pertinent times.

Only competent and qualified personnel should undertake erection, dismantling or alteration, organisation, planning or supervision of mobile access towers. In the case of any doubt, sufficient relevant additional training must be given beforehand to ensure safe use. For further information on the use of mobile access towers consult PASMA (www.pasma.co.uk; Tel +44 (0) 845 230 4041). For any additional technical information or specific advice please contact the manufacturer Lakeside Industries Limited Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Certifications

The Alto Medium Duty Tower is a mobile access tower certified to EN 1004 Class 3. If the application is outside the scope of EN 1004, reference should be made to EN 1139-6 to ensure that the configuration of the equipment meets the relevant requirements. This tower is manufactured in our ISO 9001 accredited facility. This manual complies with EN 1298-IM-EN.

Maximum Safe Working Loads

The safe working load of the tower is 2,000kg including its own weight. The maximum safe working load of any individual platform is 282 kg evenly distributed. If the tower is to be used in an application outside the scope of EN1004, contact your supplier or the manufacturer, Lakeside Industries Limited, for advice on loadings. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Inspection Care & Maintenance

Alto Access equipment is designed and manufactured to the highest standards in the industry and is stronger, more robust and safer than any comparable competitor product. Properly cared for, it will give a long and productive service life.

- The equipment should be inspected and maintained as outlined in the “ALTO MD Tower Inspection Procedures”. A free downloadable copy is available at www.altoaccess.com/downloads.
- Equipment should always be inspected before and after each use.
- Whilst Alto Access equipment is extremely robust, care should be exercised in loading, transporting and handling components to avoid damage or injury to either the equipment or persons.
- Repairs should only be carried out by Lakeside Industries Limited or their authorised repairers.
- In case of any doubt as to the integrity of any items of Alto Access equipment, the part should be withdrawn from use, quarantined and subject to detailed examination to determine whether repair or replacement is required. If returned to the factory, Lakeside Industries Limited will provide a free of charge evaluation of any damaged components.

Safety

Check that all of the necessary components and equipment for the particular tower configuration to be built are on site, undamaged and functioning correctly. Damaged or incorrect components must not be used.

- Check that the surface on which the tower is to be located is capable of supporting the tower and its payload.
- The safe working load of the tower is 2,000kg including its own weight. The maximum safe working load of any individual platform is 282 kg evenly distributed.
- If the tower is to be used in an application outside the scope of EN1004, contact your supplier or the manufacturer, Lakeside Industries Limited, for advice on loadings. Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- Towers **must always** be climbed from the inside using the built in ladders only. If the work carried out from the tower requires frequent carrying of equipment and materials up or down the tower, an Alto stair tower should be used in preference to a ladderspan tower.
- The tower must be levelled when erected using the adjustable jack or castor legs.
- Two or more persons are required for the safe erection and dismantling of a tower.
- It is recommended that the tower be tied in when left unattended.

- Always comply with the Work at Height Regulations 2005 when erecting, dismantling & using the tower.
- When lifting components, always use reliable lifting equipment and fastening methods and always lift from within the footprint of the tower structure to prevent risk of the tower overturning.
- See "*Moving the Tower*" below for safety guidelines affecting the relocation of the tower.
- Beware live electrical installations, cables, moving machinery or other obstructions when erecting, dismantling or using the tower. The tower is a conductive metallic structure.
- The maximum safe lateral force for a freestanding Alto Medium Duty tower is 30kg.
- Do not use boxes, ladders or other items to gain additional height.
- Do not stand on guard rails for any reason.
- If the tower is to be used in connection with hoisting arrangements, this is outside the scope of EN1004 and requires specific advice from the manufacturer to ensure safety.
- Contact the manufacturer Lakeside Industries Limited for advice on loadings Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- Fit guard rails to all Platforms.
- Fit toe boards to all working platforms.
- Intermediate (rest) platforms are installed every 2m.
- The tower is not designed to be sheeted. Sheeting massively increases wind loads on the structure. If sheeting is to be attached, contact the manufacturer Lakeside Industries Limited for advice on loadings Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- The tower is not designed to be lifted or suspended.
- Every erected tower must be inspected at least every seven days and any tower which has been left unattended should be inspected before use to ensure that:

    1 no components have been removed or relocated incorrectly;

    2 the tower is still vertical; and

    3 no environmental or other factors have arisen which will influence safe use of the tower.
- Unattended towers should be tied in to a rigid structure.
- Stabilisers or outriggers and ballast shall always be fitted when specified.
- Where there is insufficient clearance to fit the specified stabilisers, contact your supplier or the manufacturer for specific advice. Where ballast or kentledge is used, it must be of solid material, placed on a platform on the lowest rung of the tower and secured against unauthorised removal.

Wind Speeds

Persons using or responsible for towers must beware of the effect of wind on the structure. Wherever possible, as a precaution, it is advisable to tie the tower in to a rigid structure if it is to be used where it is exposed to potential windy conditions. Users should beware the potential tunnelling effect of open ended or unclad buildings and narrow openings between buildings. We recommend that the use of the tower is discontinued in conditions where the wind speed is above 17mph (force 4).

WIND DESCRIPTION	BEAUFORT SCALE	AVERAGE SPEED	INFORMATION
Medium Breeze	4	13-17 mph	Safe to work on tower.
Strong Breeze	6	25-31 mph	Tie the tower to a solid structure. Do not work on tower.
Gale Force	8	39-46 mph	Towers must be dismantled. Towers must not be assembled.

Erecting & Dismantling the Tower

All Alto towers must be built and dismantled in accordance with the step by step instructions in the following pages corresponding to the particular tower configuration involved and having regard to the working at height regulations and Health & Safety legislation.

Moving the Tower

Before moving the tower, its overall height should be reduced to 4m working platform height or less. No persons, tools, equipment or materials shall be permitted to remain on the tower when it is being moved.

The tower should only be moved by pushing it by the lowest frames.

When moving the tower users are to be particularly careful of the following:

- Obstructions, moving machinery or electrical cables and equipment
- not to move the tower in wind speeds of 18mph (force 5) or above
- the effect of rough, uneven or sloping ground on the stability of the tower
- locking and unlocking the castors to allow and prevent the tower moving at appropriate times
- after completing the movement, use a spirit level to ensure that the tower is vertical and safely supported on an appropriate surface
- after completing the movement check that the tower is correct and complete.

AGR Method Explained

The Advanced Guardrail (AGR) method is one of the two permitted ways of assembling a tower without the assembler being at risk of falling. This tower is an AGR tower.

An AGR tower uses prefabricated frames to derive the rigidity and structural integrity of the tower instead of horizontal and diagonal braces used in traditional 3T assembly methods. AGR frames lock into the tower frames to create a fully locked and rigid structure.

As each new level is added onto a tower, the operatives first install the AGR frames and tower frames from a safe guard railed position on the platforms below. Once the AGR frames are in place, platforms for the next level are installed such that the two uppermost horizontal bars on the AGR frames form guardrails at 0.5m and 1.0m above the deck level. This process repeats until the tower is at the required height.

The Alto AGR panels feature deep locating hooks on either end of the top horizontal bar and sprung couplers on either end of the bottom horizontal bar. This design positively locks the AGR frames into place, giving a rigid interface.

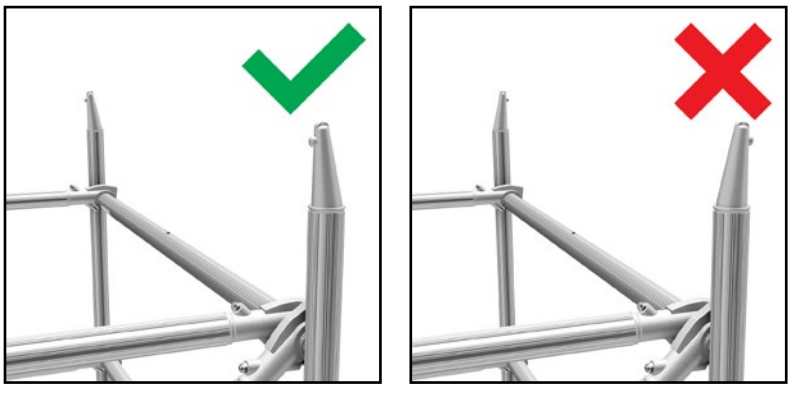
Tying In

Towers must be tied into a suitable rigid structure once they go beyond the freestanding working heights specified in EN 1004 2004 - 8m working platform height outdoors and 12m working platform height indoors - or if the tower is unstable or is in danger of being unstable.

Standard scaffold tubes and fittings can be used with the Alto Access products. Ties should be spaced at no more than 4m intervals. Ties must be rigid and be secured to both frame uprights. For further details regarding tying in, please contact your supplier or the manufacturer: Lakeside Industries Limited.

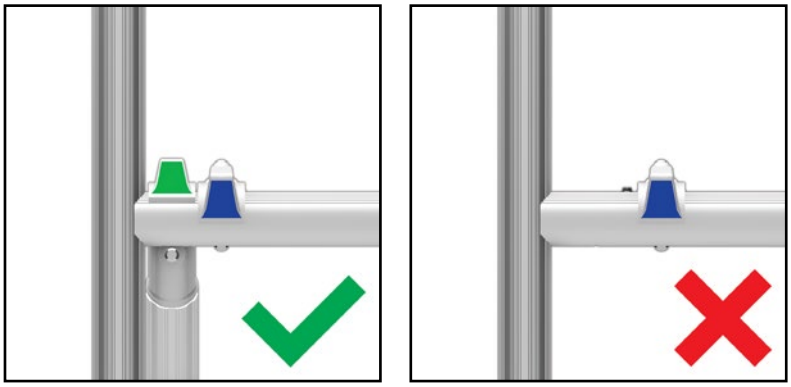
Frames

Frames **must** always be assembled with the offset conical head fitting pointing inwards towards the centre of the tower.

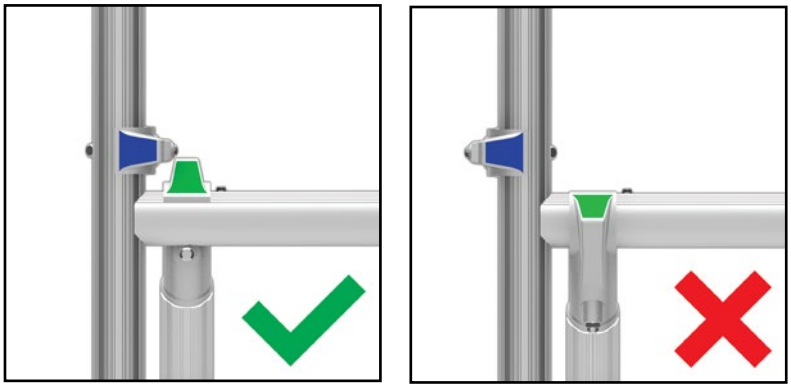


Braces

All braces are fitted with spring loaded pins that automatically lock the brace into position when attached to a tower. Brace hooks **must** be located either over the rung screw heads, between 2 screw heads or between the frame upright and a screw head to prevent lateral movement.

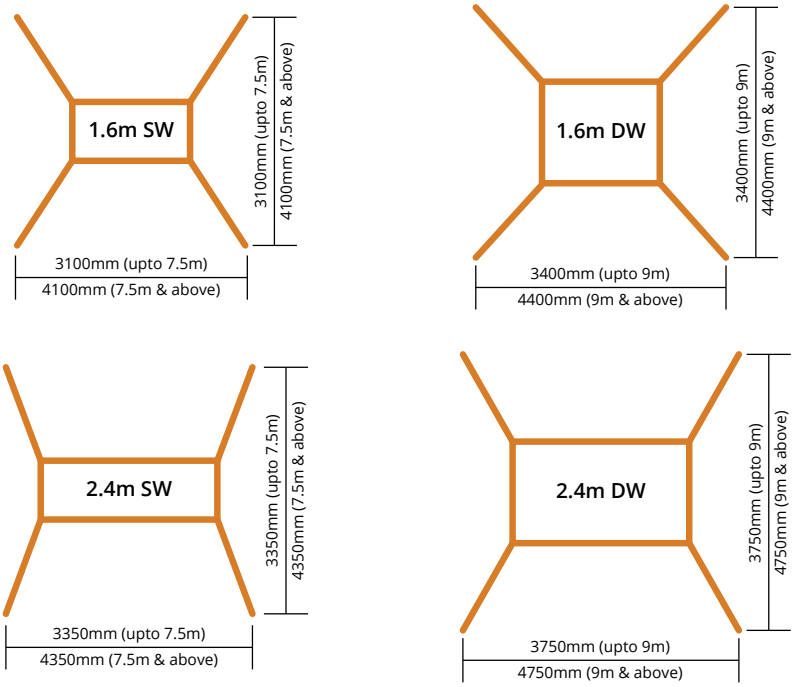


Diagonal braces **must** always be located with the claw opening facing down. Horizontal braces must be located with the claw facing either down (on the rung) or outwards (if on the upright).



Stabilisers

Stabilisers should always be attached to the tower so as to maximise the base area of the tower structure. Set the stabilisers so they form a square around the tower as per the diagram below. The correct size stabilisers **must** always be used - see component schedule for details.



SINGLE WIDTH MD SPAN TOWER TO BS EN 1004:2004

Using the Advanced Guardrail assembly method

		PLATFORM WORKING HEIGHT (m)																				
		INTERNAL & EXTERNAL USE												INTERNAL USE ONLY								
CODE	PART DESCRIPTION	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
2239	125mm Dia. Castor Wheel	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3076	MD Adj. Alum Leg (black collar)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3036	MD 1.6m S/W Toeboard	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3008	MD S/W 4 Rung Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3012	MD S/W 4 Rung Ladder Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3010	MD S/W 3 Rung Frame		1		1		1		1		1		1		1		1		1		1	
3013	MD S/W 3 Rung Ladder Frame		1		1		1		1		1		1		1		1		1		1	
3011	MD S/W 2 Rung Frame	1			1	1			1	1			1	1			1	1			1	1
3014	MD S/W 2 Rung Ladder Frame	1			1	1			1	1			1	1			1	1			1	1
3015	MD 1.6m Horiz. Brace (blue)	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*
3016	MD 1.6m Diag. Brace (green)			2				2				2				2				2		
3082	MD 1.6m x 1 Rung Brace (white)	2	2		2	2	2		2	2	2		2	2	2		2	2	2		2	2
1001	MD 1.6m AGR Unit	2	2	2	4	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12
3021	MD 1.6m Trap Platform	1	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
3023	MD Small Stabiliser	4	4	4	4	4	4	4	4	4	4	4										
3024	MD Large Stabiliser												4	4	4	4	4	4	4	4	4	4
TOTAL SELF WEIGHT OF TOWER (kg)		106	122	131	151	155	158	180	200	203	207	229	253	257	260	283	302	306	309	332	351	355
MAX No. WORKING LEVELS		1	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5
BUILD METHOD		A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A

* One temporary horizontal brace has been included to aid the assembly procedure. **This is optional.** The total self weight of the tower does not include the one temporary horizontal brace.

COMPONENT SCHEDULE

1.6m Long x 0.8m Wide (Single Width) MD Advanced Guardrail (AGR) Tower

COMPONENT SCHEDULE

1.6m Long x 1.38m Wide (Double Width) MD Advanced Guardrail (AGR) Tower

DOUBLE WIDTH MD SPAN TOWER TO BS EN 1004:2004

Using the Advanced Guardrail assembly method

		PLATFORM WORKING HEIGHT (m)																				
		INTERNAL & EXTERNAL USE												INTERNAL USE ONLY								
CODE	PART DESCRIPTION	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
2239	125mm Dia. Castor Wheel	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3076	MD Adj. Alum Leg (black collar)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3034	MD 1.6m D/W Toeboard	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3001	MD D/W 4 Rung Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3005	MD D/W 4 Rung Ladder Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3003	MD D/W 3 Rung Frame		1		1		1		1		1		1		1		1		1		1	
3006	MD D/W 3 Rung Ladder Frame		1		1		1		1		1		1		1		1		1		1	
3004	MD D/W 2 Rung Frame	1			1	1			1	1			1	1			1	1			1	1
3007	MD D/W 2 Rung Ladder Frame	1			1	1			1	1			1	1			1	1			1	1
3015	MD 1.6m Horiz. Brace (blue)	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*
3016	MD 1.6m Diag. Brace (green)			2				2				2				2				2		
3082	MD 1.6m x 1 Rung Brace (white)	2	2		2	2	2		2	2	2		2	2	2		2	2	2		2	2
1001	MD 1.6m AGR Unit	2	2	2	4	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12
3019	MD 1.6m Plain Platform	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
3021	MD 1.6m Trap Platform	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
3023	MD Small Stabiliser	4	4	4	4	4	4	4	4	4	4	4	4	4	4							
3024	MD Large Stabiliser															4	4	4	4	4	4	4
TOTAL SELF WEIGHT OF TOWER (kg)		126	130	166	186	191	196	231	252	257	261	297	317	322	326	367	387	392	397	433	453	458
MAX No. WORKING LEVELS		1	1	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
BUILD METHOD		A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A

* One temporary horizontal brace has been included to aid the assembly procedure. **This is optional.** The total self weight of the tower does not include the one temporary horizontal brace.

SINGLE WIDTH MD SPAN TOWER TO BS EN 1004:2004

Using the Advanced Guardrail assembly method

		PLATFORM WORKING HEIGHT (m)																				
		INTERNAL & EXTERNAL USE												INTERNAL USE ONLY								
CODE	PART DESCRIPTION	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
2239	125mm Dia. Castor Wheel	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3076	MD Adj. Alum Leg (black collar)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3037	MD 2.4m S/W Toeboard	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3008	MD S/W 4 Rung Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3012	MD S/W 4 Rung Ladder Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3010	MD S/W 3 Rung Frame		1		1		1		1		1		1		1		1		1		1	
3013	MD S/W 3 Rung Ladder Frame		1		1		1		1		1		1		1		1		1		1	
3011	MD S/W 2 Rung Frame	1			1	1			1	1			1	1			1	1			1	1
3014	MD S/W 2 Rung Ladder Frame	1			1	1			1	1			1	1			1	1			1	1
3017	MD 2.4m Horiz. Brace (yellow)	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*
3018	MD 2.4m Diag. Brace (brown)			2				2				2				2				2		
3084	MD 2.4m x 1 Rung Brace (grey)	2	2		2	2	2		2	2	2		2	2	2		2	2	2		2	2
1003	MD 2.4m AGR Unit	2	2	2	4	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12
3022	MD 2.4m Trap Platform	1	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
3023	MD Small Stabiliser	4	4	4	4	4	4	4	4	4	4	4										
3024	MD Large Stabiliser												4	4	4	4	4	4	4	4	4	4
TOTAL SELF WEIGHT OF TOWER (kg)		121	137	154	176	180	183	212	235	239	242	271	299	303	306	335	358	361	365	393	416	420
MAX No. WORKING LEVELS		1	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5
BUILD METHOD		**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**

* One temporary horizontal brace has been included to aid the assembly procedure. **This is optional.** The total self weight of the tower does not include the one temporary horizontal brace.

COMPONENT SCHEDULE

2.4m Long x 0.8m Wide (Single Width) MD Advanced Guardrail (AGR) Tower

COMPONENT SCHEDULE

2.4m Long x 1.38m Wide (Double Width) MD Advanced Guardrail (AGR) Tower

DOUBLE WIDTH MD SPAN TOWER TO BS EN 1004:2004

Using the Advanced Guardrail assembly method

		PLATFORM WORKING HEIGHT (m)																				
		INTERNAL & EXTERNAL USE												INTERNAL USE ONLY								
CODE	PART DESCRIPTION	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
2239	125mm Dia. Castor Wheel	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3076	MD Adj. Alum Leg (black collar)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3035	MD 2.4m D/W Toeboard	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3001	MD D/W 4 Rung Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3005	MD D/W 4 Rung Ladder Frame	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
3003	MD D/W 3 Rung Frame		1		1		1		1		1		1		1		1		1		1	
3006	MD D/W 3 Rung Ladder Frame		1		1		1		1		1		1		1		1		1		1	
3004	MD D/W 2 Rung Frame	1			1	1			1	1			1	1			1	1			1	1
3007	MD D/W 2 Rung Ladder Frame	1			1	1			1	1			1	1			1	1			1	1
3017	MD 2.4m Horiz. Brace (yellow)	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*	3*	7*	3*	3*
3018	MD 2.4m Diag. Brace (brown)			2				2				2				2				2		
3084	MD 2.4m x 1 Rung Brace (grey)	2	2		2	2	2		2	2	2		2	2	2		2	2	2		2	2
1003	MD 2.4m AGR Unit	2	2	2	4	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12
3020	MD 2.4m Plain Platform	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
3022	MD 2.4m Trap Platform	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
3023	MD Small Stabiliser	4	4	4	4	4	4	4	4	4	4	4	4	4	4							
3024	MD Large Stabiliser															4	4	4	4	4	4	4
TOTAL SELF WEIGHT OF TOWER (kg)		146	151	198	222	227	232	279	303	308	312	359	383	388	393	445	469	474	479	525	550	555
MAX No. WORKING LEVELS		1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
BUILD METHOD		A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A

* One temporary horizontal brace has been included to aid the assembly procedure. **This is optional.** The total self weight of the tower does not include the one temporary horizontal brace.

ASSEMBLY INSTRUCTIONS

Build Method A 2.2m, 4.2m, 6.2m, 8.2m, 10.2m, 12.2m

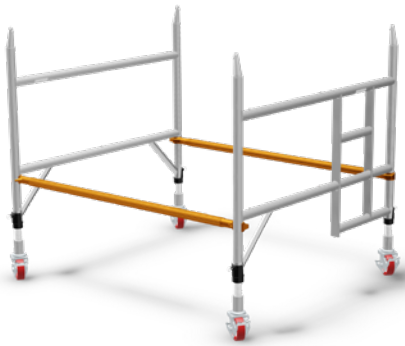
When assembling a single width tower the same steps apply, but swap the frames and toeboards for the single width versions and omit the plain platforms.

Step 1

Insert the leg & castor assembly into the base of the 2 Rung Frame and 2 Rung Ladder Frame. When fully inserted, ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

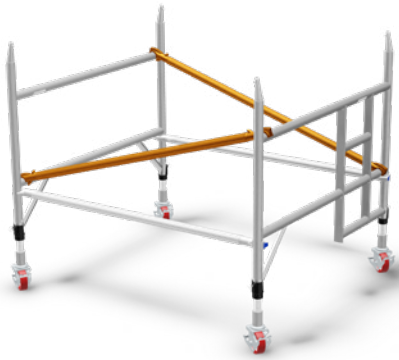
Step 2

Connect 2 horizontal braces to the uprights of the frames in the area below the bottom rung. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.



Step 3

Connect the 2 diagonal braces to the frames as shown. Keep the diagonal braces as close to the frame uprights as possible. Ensure that they run in opposite directions to each other. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.



Step 4

Install a 4 rung frame and a 4 rung ladder frame onto the 2 rung frames as shown. A **temporary** horizontal brace can be fitted onto the **frame uprights** if needed, to keep the 2 frames vertical. Install the brace onto one side of the tower only and make sure it is connected to the uprights and not the horizontals.

Step 5

Install the AGR units to the 4 rung frames in the positions shown. Locate the top hooks as close to the frame uprights as possible. Secure the clamps at the bottom of the unit to the frame uprights, ensuring the clamps are tight. If a temporary brace was used in step 4, fit the first AGR unit on the opposite side, then remove the temporary brace before fitting the 2nd AGR unit.

Step 6

Fit a trap platform and plain platform on the 3rd rung down from the top. Connect 4 stabilisers to the corners. Fix the short arm to the lowest part of the tower and the long arm to the upper part and the foot is firmly placed on the ground. Small vertical adjustments can be made to either arm to guarantee a sturdy placement. If a 2.2m tower is being assembled go to step 8.

Proceed to Step 7

ASSEMBLY INSTRUCTIONS

Build Method B 2.7m, 4.7m, 6.7m, 8.7m, 10.7m

When assembling a single width tower the same steps apply, but swap the frames and toeboards for the single width versions and omit the plain platforms.

Step 1

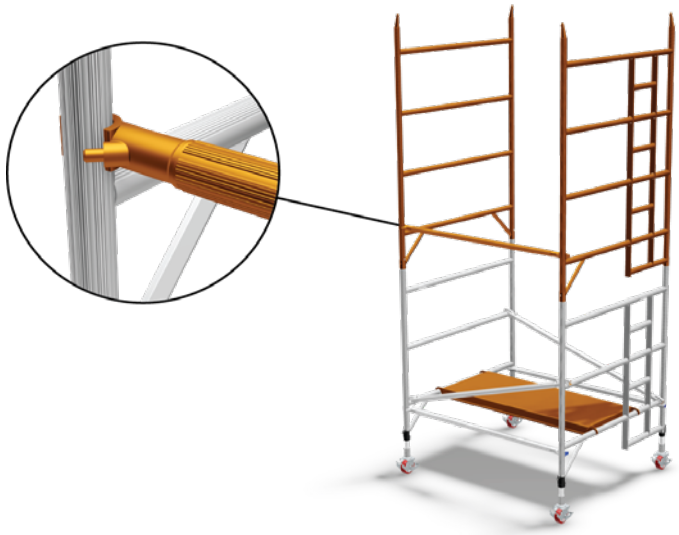
Insert the leg & castor assembly into the base of the 3 Rung Frame and 3 Rung Ladder Frame. When fully inserted, ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect 2 horizontal braces to the uprights of the frames in the area below the bottom rung. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect the 2 diagonal braces to the frames as shown. Keep the diagonal braces as close to the frame uprights as possible. Ensure that they run in opposite directions to each other. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.



* You must fit guardrails to the platform if your risk assessment has shown that there is a danger of a fall liable to cause personal injury.

Step 4

Fit a 4 rung plain and 4 rung ladder frame onto the 3 rung frames as shown. A **temporary** horizontal brace can be fitted onto the **frame uprights** if needed, to keep the 2 frames vertical. Fit the brace onto one side of the tower only and make sure it is connected to the uprights and not the horizontals. A **temporary** platform can also be fitted to the 1st rung of the tower to aid install*.

Step 5

Install the AGR units to the 4 rung frames in the positions shown. Locate the top hooks as close to the frame uprights as possible. Secure the clamps at the bottom of the unit to the frame uprights, ensuring the clamps are tight. If a temporary brace was used in step 4, fit the first AGR unit on the opposite side, then remove the temporary brace before fitting the 2nd AGR unit.

Step 6

Fit a trap platform and plain platform on the 3rd rung down from the top. Connect 4 stabilisers to the corners. Fix the short arm to the lowest part of the towernand the long arm to the upper part and the foot is firmly placed on the ground. Small vertical adjustments can be made to either arm to guarantee a sturdy placement. If a 2.4m tower is being assembled go to step 8.

Proceed to Step 7

ASSEMBLY INSTRUCTIONS

Build Method C 3.2m, 5.2m, 7.2m, 9.2m, 11.2m

When assembling a single width tower the same steps apply, but swap the frames and toeboards for the single width versions and omit the plain platforms.

Step 1

Insert the leg & castor assembly into the base of the 4 Rung Frame and 4 Rung Ladder Frame. When fully inserted, ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect 2 horizontal braces to the uprights of the frames in the area below the bottom rung. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

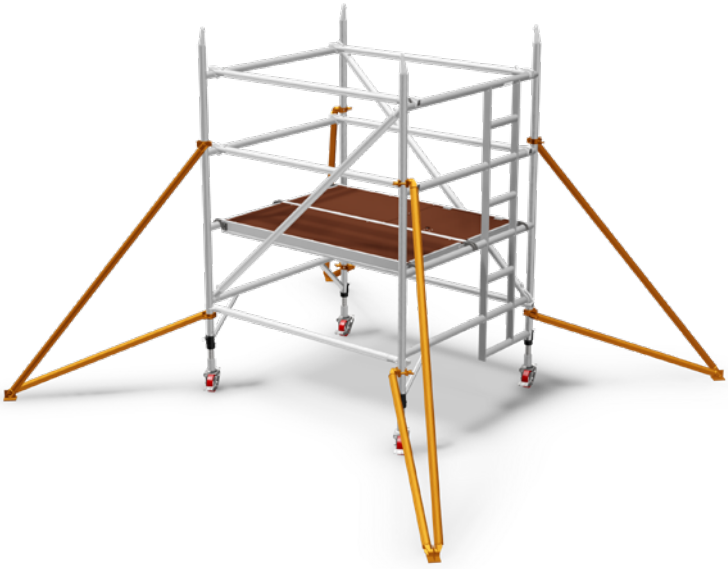
Connect the 2 diagonal braces to the frames as shown. Keep the diagonal braces as close to the frame uprights as possible. Ensure that they run in opposite directions to each other. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.

Step 4

Install a plain platform and trap platform to the tower on the 2nd rung up as shown. Make sure that the trap door is located at the ladder.

Step 5

Install 4 horizontal braces as platform guardrails to the tower on the 3rd and 4th rung up as shown.



Step 6

Now connect 4 stabilisers to the corners. Fix the short arm to the lowest part of the tower, and the long arm to the upper part, ensuring the foot is firmly placed on the ground. Small vertical adjustments can be made to either arm to guarantee a sturdy placement.

Proceed to Step 7

ASSEMBLY INSTRUCTIONS

Build Method D 3.7m, 5.7m, 7.7m, 9.7m, 11.7m

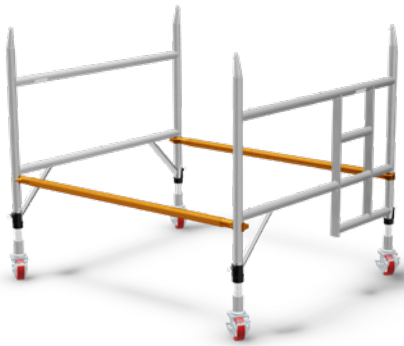
When assembling a single width tower the same steps apply, but swap the frames and toeboards for the single width versions and omit the plain platforms.

Step 1

Insert the leg & castor assembly into the base of the 2 Rung Frame and 2 Rung Ladder Frame. When fully inserted, ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

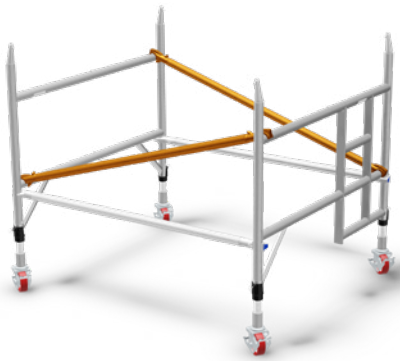
Step 2

Connect 2 horizontal braces (blue) to the uprights of the frames in the area below the bottom rung. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.



Step 3

Connect the 2 diagonal braces to the frames as shown. Keep the diagonal braces as close to the frame uprights as possible. Ensure that they run in opposite directions to each other. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.



Step 4

Fit a 3 rung plain and 3 rung ladder frame onto the 2 rung frames as shown. A **temporary** horizontal brace can be fitted onto the **frame uprights** if needed, to keep the 2 frames vertical. Fit the brace onto one side of the tower only and make sure it is connected to the uprights and not the horizontals.

Step 5

Install the AGR units to the 3 rung frames in the positions shown. Locate the top hooks as close to the frame uprights as possible. Secure the clamps at the bottom of the unit to the frame uprights, ensuring the clamps are tight. If a temporary brace was used in step 4, fit the first AGR unit on the opposite side, then remove the temporary brace before fitting the 2nd AGR unit.

Step 6

Fit a trap platform and plain platform on the 3rd rung down from the top. Now connect 4 stabilisers to the corners. Fix the short arm to the lowest part of the tower, and the long arm to the upper part, ensuring the foot is firmly placed on the ground. Small vertical adjustments can be made to either arm to guarantee a sturdy placement.

Proceed to Step 7

All Platform Working Heights

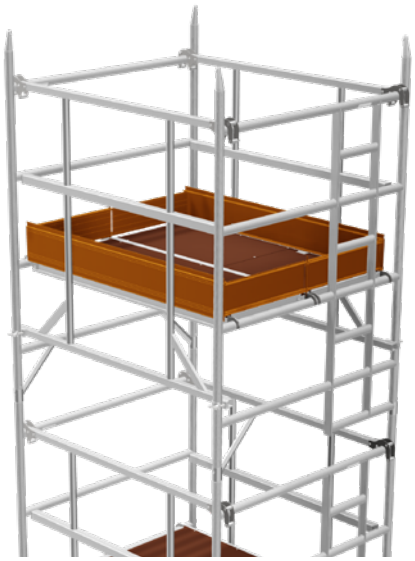
When assembling a single width tower the same steps apply, but swap the frames and toeboards for the single width versions and omit the plain platforms.

Step 7

Working from the platform, install a set of 4 rung frames onto the previous set of frames. Now clip on 2 AGR units in the position shown. Secure the clamps at the bottom of the AGR to the frame uprights, ensuring the clamps are tight. Fit the next set of platforms 4 rungs above the previous platforms. Repeat this assembly until the required platform working height is achieved.

Step 8

Finally, install a toeboard to the working platform, ensuring that the sides are hooked securely over the outside edge of both platforms.



DISMANTLING

The dismantling procedure requires a minimum of 2 operatives to complete the task safely. To dismantle the tower, the assembly sequence should be followed in reverse. When removing the AGR units, make sure that only the upper most set are removed first. Do not attempt to remove or loosen the clamps on any other AGR units until the appropriate level of framework has been reached.

Double Width Tower Components

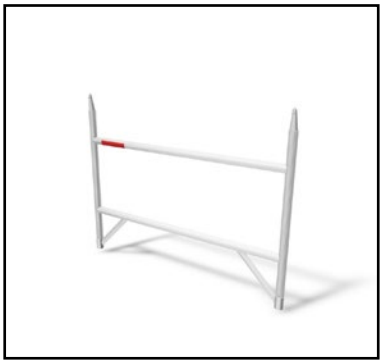
2239 - 125mm castor wheel
3076 - MD Adj. Leg

3001 - MD D/W 4 Rung Frame

3005 - MD D/W 4 Rung Ladder Frame

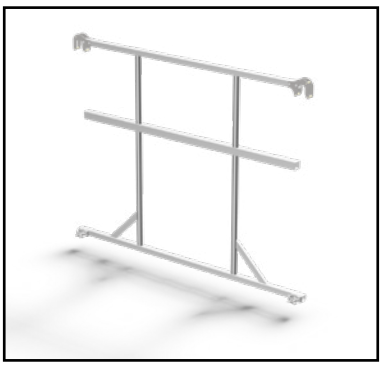
3003 - MD D/W 3 Rung Frame

3006 - MD D/W 3 Rung Ladder Frame

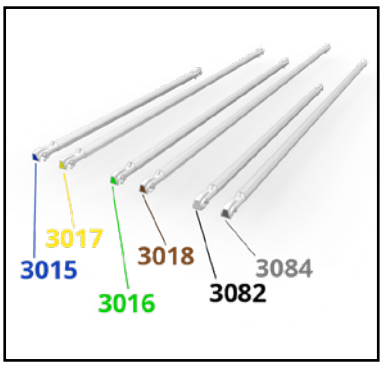


3004 - MD D/W 2 Rung Frame

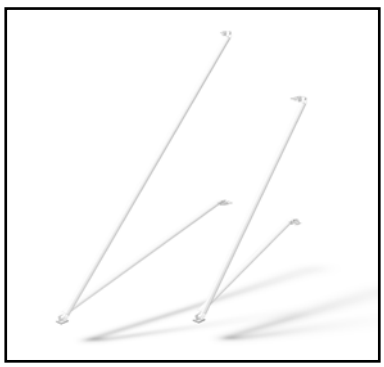
3007 - MD D/W 2 Rung Ladder Frame



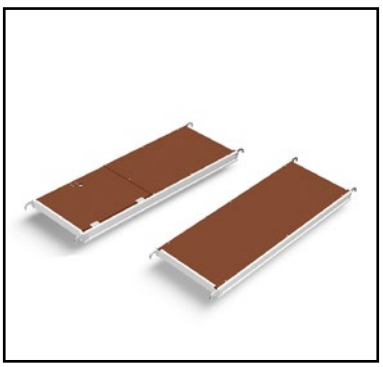
1001 - 1.6m AGR Unit
1003 - 2.4m AGR Unit



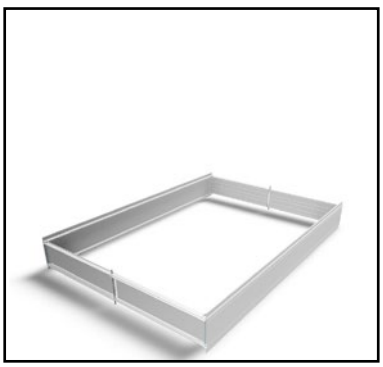
3015/17 - 1.6/2.4 Horiz. Brace
3016/18 - 1.6/2.4 Diag. Brace
3082/84 - 1.6/2.4 x 1 rung Brace



3023 - MD Small Stabiliser
3024 - MD Large Stabiliser

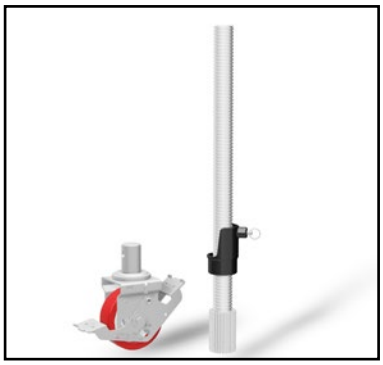


3021/22 - 1.6/2.4m Trap Platf.
3019/20 - 1.6/2.4m Plain Platf.



3034 - 1.6m D/W Toeboard
3035 - 2.4m D/W Toeboard

Single Width Tower Components



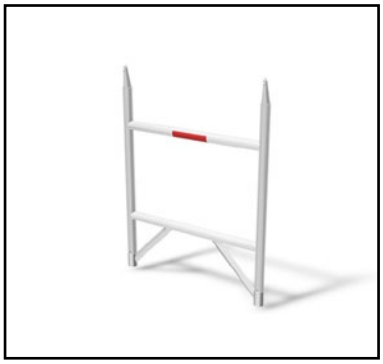
2239 - 125mm castor wheel
3076 - MD Adj. Leg

3008 - MD S/W 4 Rung Frame

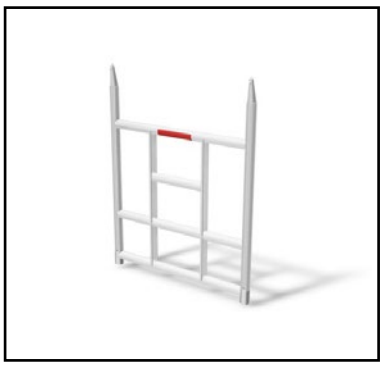
3012 - MD S/W 4 Rung Ladder Frame

3010 - MD S/W 3 Rung Frame

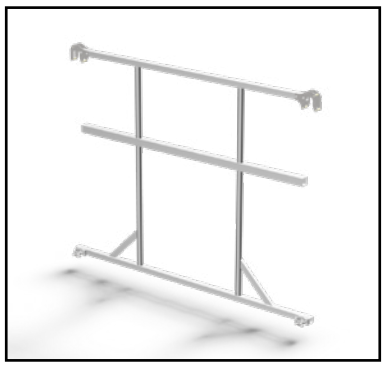
3013 - MD S/W 3 Rung Ladder Frame



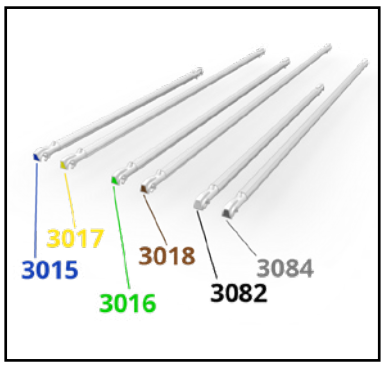
3011 - MD S/W 2 Rung Frame



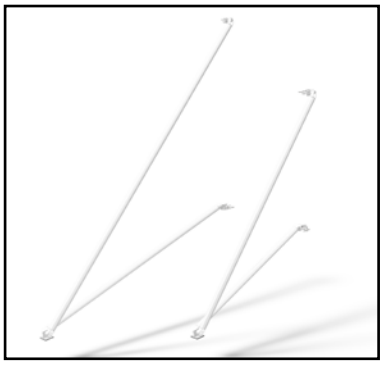
3014 - MD S/W 2 Rung Ladder Frame



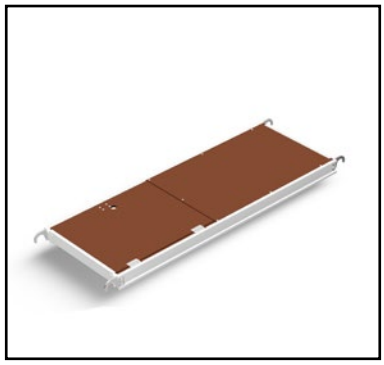
1001 - 1.6m AGR Unit
1003 - 2.4m AGR Unit



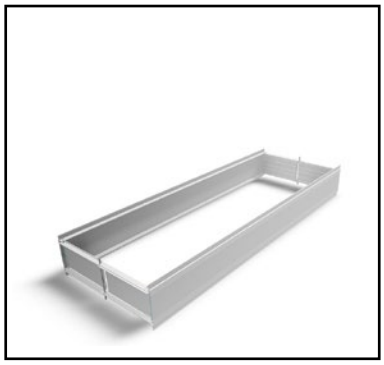
3015/17 - 1.6/2.4 Horiz. Brace
3016/18 - 1.6/2.4 Diag. Brace
3082/84 - 1.6/2.4 x 1 rung Brace



3023 - MD Small Stabiliser
3024 - MD Large Stabiliser



3021 - 1.6m Trap Platform
3022 - 2.4m Trap Platform



3036 - 1.6m S/W Toeboard
3037 - 2.4m S/W Toeboard

Notes

THE HEIGHT OF SAFETY

For further information regarding our range of access products and services, please get in touch with us:

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