

Layher Rolling Towers — Uni Wide

Safety Structure 

Instructions for Assembly and Use

Mobile working platforms

to DIN EN 1004:2005-03

Working platform 1.5 x 2.85 m

max. working height:

indoors 13.6 m

outdoors 9.6 m

Load bearing capacity 2.0 kN/m²

on max. one working level

(scaffold group 3 to

DIN EN 1004:2005-03)



Rolling Towers

Layher®

More Possibilities. The Scaffolding System.

► **NOTE**

The products or assembly variants shown in these instructions for assembly and use may be subject to country-specific regulations. The user of the products bears the responsibility for compliance with such regulations. Subject to local regulations, we reserve the right not to supply all the products illustrated here.

Your Layher partner on the spot will be happy to provide advice and answers to all questions relating to the approvals for the products, to their use or to specific assembly regulations.

▶ 1. INTRODUCTION

General

These instructions for assembly and use relate to assembly, modification and dismantling of the Layher rolling tower Uni Wide from Wilhelm Layher GmbH & Co. KG, of Gueglingen-Eibensbach, Germany. The instructions cannot cover all the possible applications. If you have any questions about specific applications, please contact your Layher partner.

Caution: The Layher Uni Wide may only be assembled, modified and dismantled under the supervision of a qualified expert and by technically trained employees.

▶ 2. GENERAL DIRECTIONS FOR ASSEMBLY AND USE

The rolling tower may be used for the appropriate scaffolding class as specified in DIN EN 1004.

The user of the rolling tower must comply with the following instructions:

1. The user must check the suitability of the selected rolling tower for the work to be performed (Section 4 of BetrSichV).
2. The maximum working height is, in accordance with DIN 1004:2005-03:
 - indoors 12.0 m
 - outdoors 8.0 mThe ballasting and component specifications on pages 8 to 10 and 17 respectively must be complied with. Risk of accidents in the event of non-compliance. The stability and loadability are no longer assured. Assembly variants differing from the specifications may require additional design measures. In such cases, the stability and loadability must be verified in each individual instance.
3. The assembly, modification or dismantling of the rolling tower in accordance with the present instructions for assembly and use may only be performed under the supervision of a qualified person and by professionally suitable employees after special instruction. Only

the tower types shown in these instructions for assembly and use may be used. The unit must, after assembly and before being put into service, be inspected by persons qualified to do so (Sections 4 and 10 of BetrSichV). The inspection must be documented (Section 11 of BetrSichV). During assembly, modification or dismantling, the rolling tower must be provided with a prohibition sign indicating “No access allowed” and be adequately safeguarded by means of barriers preventing access to the danger zone (BetrSichV Annex 2, para. 5.2.5).

4. Before installation, all parts must be inspected to ensure they are in perfect condition. Only undamaged original parts from the Layher mobile working platform systems may be used. Scaffolding parts such as snap-on claws and spigots must be cleaned of dirt after use. Scaffolding components must be secured against slipping and impacts when transported by truck. Scaffolding components must be handled in such a way that they are not damaged. For wall supports and attachment of ballast weights, see the table on pages 8–10 of these instructions for assembly and use.

5. To assemble the upper sections of the tower, the components must be hoisted from level to level. Small quantities of tools and materials can be carried up by the personnel, otherwise hoisted to the working level using transport ropes.

6. The ladder frame joints must always be secured using spring clips.

7. The tower must be levelled using the adjusting spindles.

8. Stability must be assured during each phase of the assembly process.

9. On intermediate platforms used solely for ascent, toe boards can be dispensed with. For small towers where the height of the deck is more than 1.00 m, equipment must be provided that permits attachment of side protection in accordance with DIN EN 1004:2005-03.

10. Access up onto the working platform is only permitted on the inside of the scaffolding.

11. Working on two or more working levels at the same time is not permitted. In the event of exceptions, the manufacturer must be consulted.

12. Personnel working on mobile working platforms must not push against the brick guards.

13. Lifting gear must not be attached to and used on mobile working platforms.

14. Moving in of the adjustable mobile beams is only permitted in conformity with the instructions for assembly and use and the ballasting information, see pages 8 – 10.

15. Assembly and movement are only permitted on sufficiently firm ground, and only in a longitudinal or diagonal direction. Avoid any impacts. When the base is extended on one side while wall supports are in use, movement is only permissible parallel to the wall. During movement, do not exceed normal walking speed.

16. No personnel and/or loose objects may be on the tower while it is being moved.

17. After movement, the castors must be locked by pressing down the brake lever.

18. The scaffolding structures must not be subjected to any aggressive fluids or gases.

19. Mobile working platforms must not be connected by bridging unless its structural strength has been specifically verified. The same applies for all other special assemblies, e.g. suspended scaffolding etc. Furthermore, it is not permitted to construct bridges between a mobile working platform and a building.

20. When the mobile working platform is used outdoors or in open buildings, it must be moved to a wind-protected area when wind strengths exceed 6 on the Beaufort scale or at the end of a shift, or secured against toppling over by other suitable measures (a wind strength of more than 6 can be recognised by noticeable difficulty in walking). If possible, towers used outside buildings must be securely fastened to the building itself or to other structures. It is recommended that mobile working platforms be anchored if they are left unattended. The tower must be set to the perpendicular using the adjusting spindles or by inserting suitable materials underneath it. The maximum inclination is 1 %.

21. Decks can also be fixed one rung higher or lower to achieve a different working height. It must be ensured here that the specified side protection heights of 1.0 m and 0.5 m are observed. For this assembly form, deck diagonal braces must be used.

With regard to a verification of stability, consult the manufacturer.

22. The access hatches must be kept shut whenever they are not in use.

23. All couplers must be tightened with 50 Nm.

24. Climbing over from rolling towers is prohibited.

25. Jumping onto decks is prohibited.

26. A check must be made as to whether all parts, auxiliary tools and safety equipment (ropes etc.) for assembling the mobile working platforms are available at the site.

27. Horizontal and vertical loads that could cause the mobile working platform to topple over must be avoided, for example:

- pushing against the brick guard
- additional wind loads (tunnel effect from through-type buildings, unclad buildings and corners).

28. If stipulated, mobile beams or stabilizers or outriggers and ballast must be provided.

29. It is prohibited to increase the height of the deck using ladders, boxes or other objects.

30. Mobile working platforms are not designed to be lifted or suspended.

▶ 3. MEASURES TO PREVENT FALLS

Preventing falls during assembly, modification or dismantling of the tower

General

In line with local regulations or as the result of a risk analysis performed by the scaffolding erector, personal safety apparatus (PSA), an assembly guardrail or a combination of the two may be necessary for assembly, modification or dismantling of the scaffolding.

Attachment points on the tower for the personal safety apparatus (PSA)

The tower can be assembled/dismantled optionally with personal safety apparatus (PSA) too. Suspend the snap hook during ascent at least **1.0 m above the standing area** of the still unsecured level. The platform height must be at least 5.75 m. This results in a **minimum attachment height for the PSA of 6.75 m** (Fig. 1).



Fig. 1: Attachment of PSA during ascent onto the unsecured level

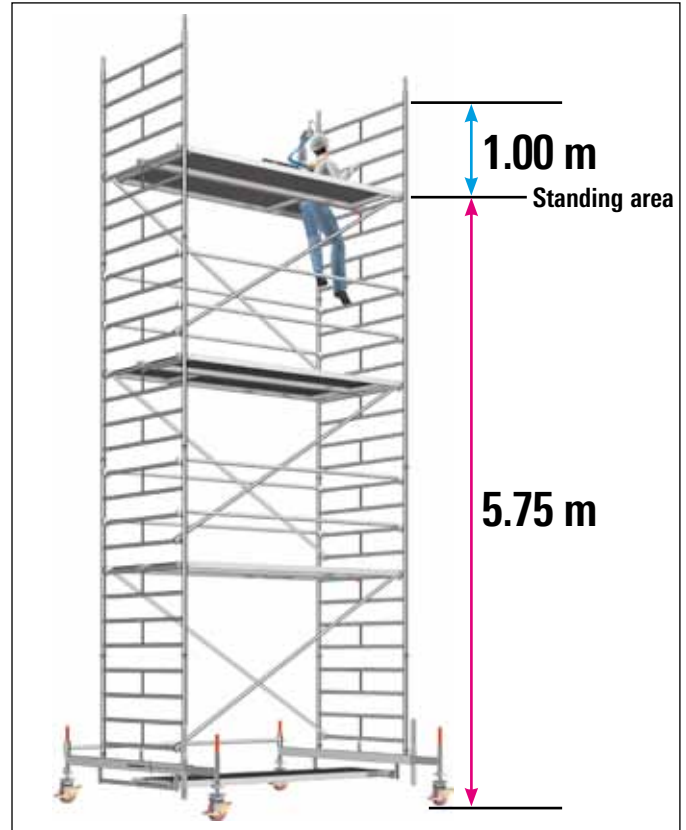


Fig. 2: Minimum heights for use of PSA

The tower level can then be secured with the rear guardrails.

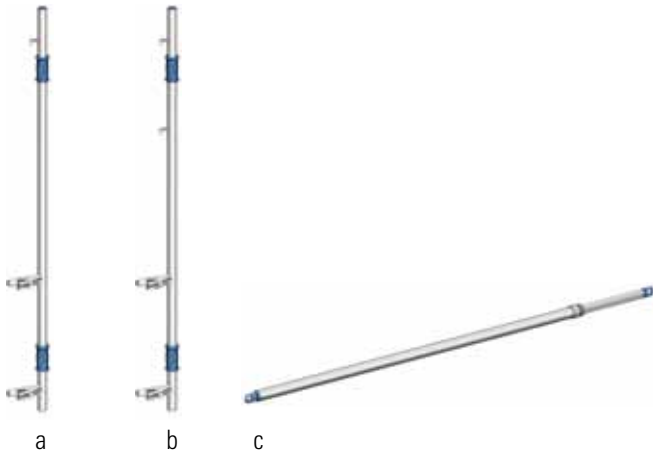


Fig. 3: Safe assembly of rear guardrails using PSA

How the Layher advance guardrail system works

The Layher advance guardrail consists of two basic components – advance guardrail post and telescoping guardrail. The assembly post a) or b) must be used depending on local regulations.

- a. Advance guardrail post with connection for telescoping guardrail at 1 m height
- b. Advance guardrail post with connection for telescoping guardrail at 0.5 m and 1 m heights
- c. Advance telescopic guardrail



The advance guardrail post of the assembly safety rail can be fitted and dismantled by an erector from two positions:

1. Assembly/dismantling from above
2. Assembly/dismantling from below

Ensure that both claws of the advance guardrail snap in completely and that the telescoping guardrail is attached using the tilting pins.



To prevent unintended slipping of the advance guardrail post, fit a rear guardrail at the level of a snap-on claw.

Fig. 4: Connection of advance guardrail post to the ladder frame

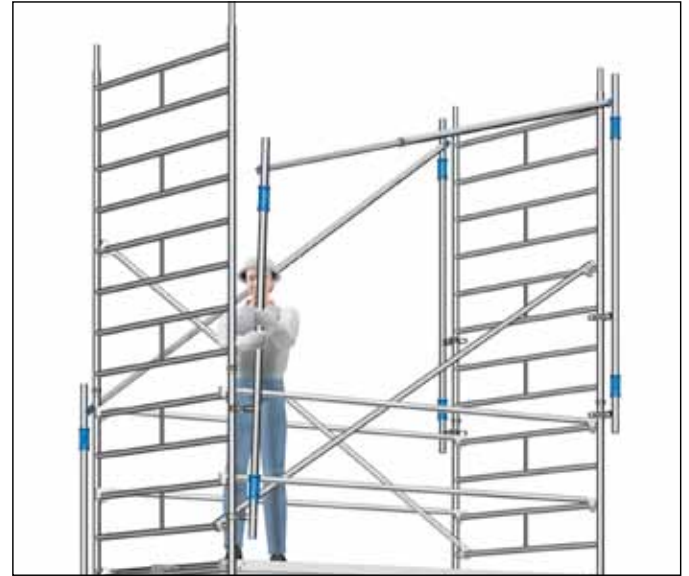


Fig. 5: Upward movement of the advance guardrail system



Fig. 6: Safe assembly of rear guardrails using advance guardrail system

► 4. TOWER MODELS

In the case of **assembly outdoors**, do not exceed the height limit!

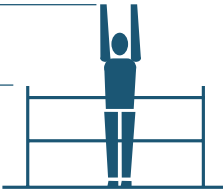
Tower models

1402101 – 1402111

Working height

Scaffolding height

Platform height



1402101



1402102



1402103



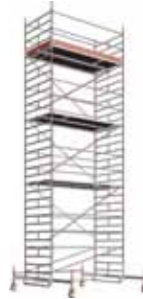
1402104



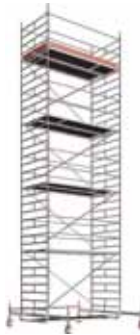
1402105



1402106



1402107



1402108



1402109



1402110



1402111

Tower model	1402101	1402102	1402103	1402104	1402105	1402106	1402107	1402108	1402109	1402110	1402111
Working height [m]	3.5	4.5	5.5	6.5	7.5	8.6	9.6	10.6	11.6	12.6	13.6
Scaffolding height ¹ [m]	2.6	3.6	4.6	5.6	6.6	7.79	8.79	9.79	10.79	11.79	12.79
Platform height [m]	1.5	2.5	3.5	4.5	5.5	6.6	7.6	8.6	9.6	10.6	11.6
Weight [kg] (without ballast)	115.4	187.2	240.4	278.8	332.0	454.2	514.3	545.8	605.9	637.4	697.5

Ballasting

Indoors											
Assembly central*	0	0	0	I1 r1	I1 r1	0	0	0	0	0	0
Assembly off-set	X	X	X	X	X	0	0	0	0	0	0
Assembly off-set with wall bracing	X	X	X	X	X	0	0	0	0	0	0
Assembly central with 1 bracket*	X	I0 r10	I0 r10	I0 r12	I0 r12	0	0	0	0	0	X
Assembly central with 2 brackets*	X	I3 r3	I2 r2	I5 r5	I4 r4	0	0	X	X	X	X
Outdoors											
Assembly central*	0	I3 r3	I6 r6	I11 r11	I16 r16	0	0	X	X	X	X
Assembly off-set	X	X	X	X	X	LO R8	LO R12	X	X	X	X
Assembly off-set with wall bracing	X	X	X	X	X	0	0	X	X	X	X
Assembly central with 1 bracket*	X	I0 r18	I0 r22	I6 r28	X	X	X	X	X	X	X
Assembly central with 2 brackets*	X	I14 r14	I16 r16	X	X	X	X	X	X	X	X

¹ Figures in brackets: Minimum tower height incl. spigot * Assembly with adjustable mobile beam, which must be fully extended. X = not permissible / possible 0 = no ballast required

For ballasting, use Layher ballast weights, Ref. No. 1249.000, 10 kg each. These are fastened quickly and securely at the right place using the star handle coupling.

Liquid or granular ballast materials must not be used. The ballast weights must be distributed evenly to all ballast fixing points (see pages 20 – 23).

Table gives the number of ballast weights each of 10 kg.

Example:

I2, r2 → 2 ballast weights of 10 kg each must be fastened to the left-hand side of the ladder frame, and 2 ballast weights of 10 kg each to its right-hand side
 I6, R16 → 6 ballast weights of 10 kg each must be fastened to the left-hand side of the mobile beam, and 16 ballast weights of 10 kg each to its right-hand side

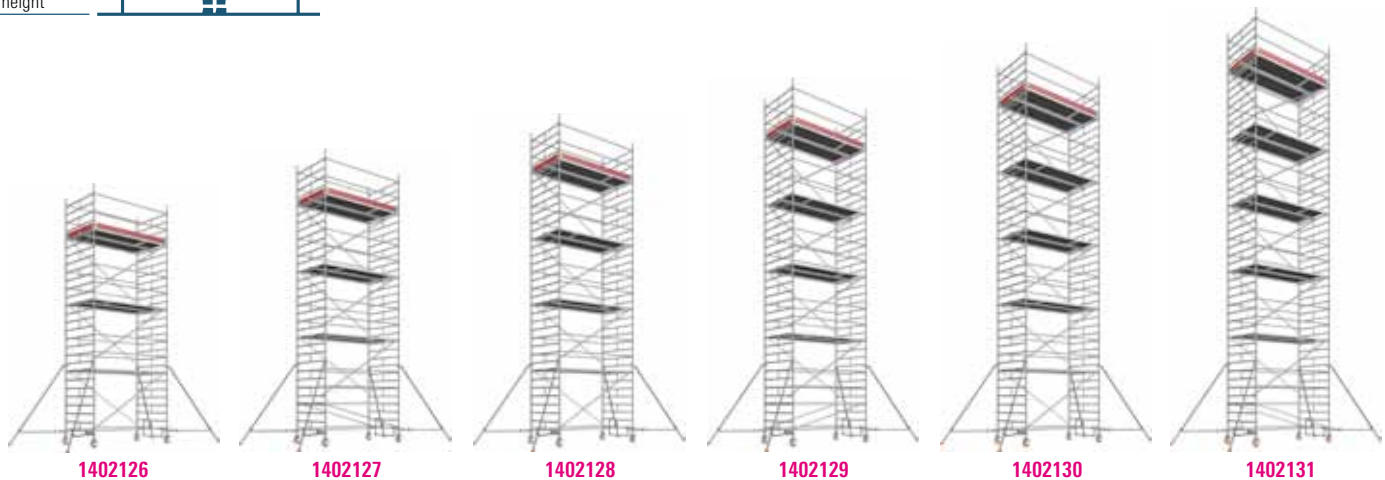
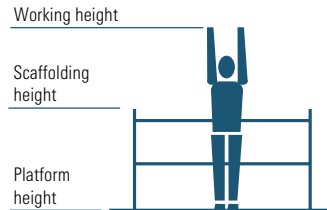
r and R always relate, in the case of off-centre assembly, to that side facing away from the scaffolding; l and L relate to the side facing the scaffolding (see also Section 9, Ballasting, on pages 20 – 23)

► TOWER MODELS WITH STABILIZERS, EXTENDABLE

In the case of **assembly outdoors**, do not exceed the height limit!

Tower models

1402126 – 1402131



Tower model	1402126	1402127	1402128	1402129	1402130	1402131
Working height [m]	8.5	9.5	10.5	11.5	12.5	13.5
Scaffolding height ¹ [m]	7.7 (7.45)	8.7 (8.45)	9.7 (9.45)	10.7 (10.45)	11.7 (11.45)	12.7 (12.45)
Platform height [m]	6.5	7.5	8.5	9.5	10.5	11.5
Weight [kg] (without ballast)	393.5	470.0	485.1	561.6	576.7	653.2
Ballasting						
Indoors						
Assembly central*	0	0	0	0	0	0
Assembly off-set	LO 2R	LO R2	LO R2	LO R2	LO R4	LO R4
Assembly off-set with wall bracing	0	0	0	0	0	0
Outdoors						
Assembly central*	0	0	X	X	X	X
Assembly off-set	LO R14	LO R18	X	X	X	X
Assembly off-set with wall bracing	0	0	X	X	X	X

¹ Figures in brackets: Minimum tower height incl. spigot * Assembly with adjustable mobile beam, which must be fully extended. X = not permissible / possible 0 = no ballast required

For ballasting, use Layher ballast weights, Ref. No. 1249.000, 10 kg each. These are fastened quickly and securely at the right place using the star handle coupling.

Liquid or granular ballast materials must not be used. The ballast weights must be distributed evenly to all ballast fixing points (see pages 20 – 23).

Example: L2, r2 → 2 ballast weights of 10 kg each must be fastened to the left-hand side of the ladder frame, and 2 ballast weights of 10 kg each to its right-hand side
L6, R16 → 6 ballast weights of 10 kg each must be fastened to the left-hand side of the stabilizers, and 16 ballast weights of 10 kg each to its right-hand side

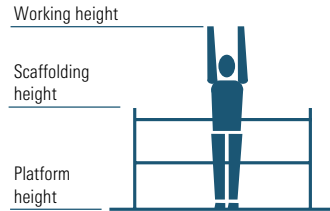
r and R always relate, in the case of off-centre assembly, to that side facing away from the scaffolding; l and L relate to the side facing the scaffolding (see also Section 9, Ballasting, on pages 20 – 23)

► TOWER MODELS WITH STABILIZERS, 5 M

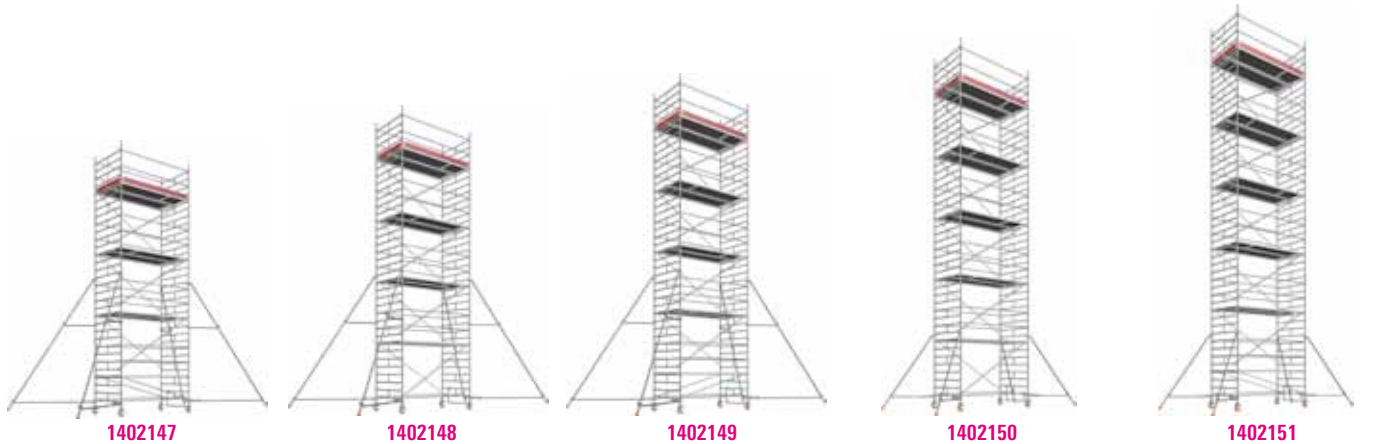
In the case of **assembly outdoors**, do not exceed the height limit!

Tower models

1402146 – 1401151



1402146



1402147

1402148

1402149

1402150

1402151

Tower model	1402146	1402147	1402148	1402149	1402150	1402151
Working height [m]	8.5	9.5	10.5	11.5	12.5	13.5
Scaffolding height ¹ [m]	7.7 (7.45)	8.7 (8.45)	9.7 (9.45)	10.7 (10.45)	11.7 (11.45)	12.7 (12.45)
Platform height [m]	6.5	7.5	8.5	9.5	10.5	11.5
Weight [kg] (without ballast)	419.1	495.6	510.7	587.2	602.3	678.8
Ballasting						
Indoors						
Assembly central*	0	0	0	0	0	0
Assembly off-set	0	0	LO R2	LO R2	LO R2	LO R2
Assembly off-set with wall bracing	0	0	0	0	0	0
Outdoors						
Assembly central*	X	X	X	X	X	X
Assembly off-set	LO R10	X	X	X	X	X
Assembly off-set with wall bracing	0	0	X	X	X	X

¹ Figures in brackets: Minimum tower height incl. spigot * Assembly with adjustable mobile beam, which must be fully extended. X = not permissible / possible 0 = no ballast required

For ballasting, use Layher ballast weights, Ref. No. 1249.000, 10 kg each. These are fastened quickly and securely at the right place using the star handle coupling.

Liquid or granular ballast materials must not be used. The ballast weights must be distributed evenly to all ballast fixing points (see pages 20 – 23).

Table gives the number of ballast weights each of 10 kg.

Example: L2, R2 → 2 ballast weights of 10 kg each must be fastened to the left-hand side of the ladder frame, and 2 ballast weights of 10 kg each to its right-hand side
L6, R16 → 6 ballast weights of 10 kg each must be fastened to the left-hand side of the stabilizers, and 16 ballast weights of 10 kg each to its right-hand side

r and R always relate, in the case of off-centre assembly, to that side facing away from the scaffolding; l and L relate to the side facing the scaffolding (see also Section 9, Ballasting, on pages 20 – 23)

► 5. ASSEMBLY Safety Structure P2

Observe the general directions for assembly and use on pages 4–5. The assembly examples shown are intended for use indoors up to a maximum platform height of 12 m and outdoors up to a maximum platform height of 8 m. Snap the snap-on claws of all parts into the ladder frames from above. Level the tower after the basic assembly process. This is done using the threaded spindles of the castors 1.



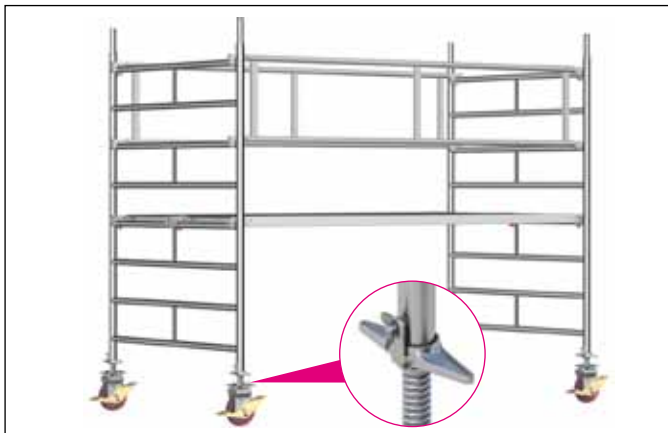
The castors must be locked during assembly, modification or dismantling, and when there are people on the scaffolding.

Wedges in the system must be hammered home until the blow bounces off. Screw couplers must generally be tightened (50 Nm).

On the topmost scaffolding level, a double guardrail 13 or a tower beam 14 can be fitted instead of two rear guardrails. Please remember in this case that for assembly and dismantling two additional rear guardrails must be present to ensure collective side protection. These can be removed again after insertion of the double guardrail or of the tower beam.

The item numbers of the parts relate to the individual part list on page 26–28.

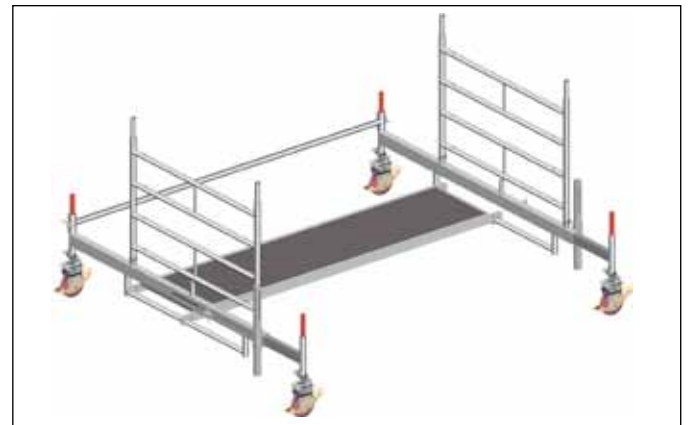
Basic assembly Tower model 1402101



1. Insert the castors 1 into the 2.00 m ladder frames 15 and secure them against falling out by fastening the wing screws on the spindle nuts.

2. Connect the two ladder frames 15 using two double guardrails 13. Suspend the access deck 22 and the deck 23 from the fourth rung from below of the 2.00 m ladder frames 15.

Basic assembly Tower models 1402106, 1402108 and 1402110



1. Insert the castors 1 into the mobile beams 4/5 and secure them against falling out by fastening the wing screws on the spindle nuts.

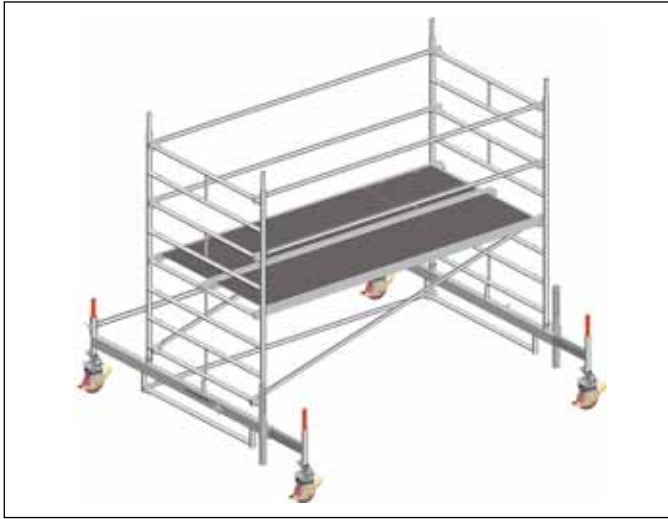
2. Connect the mobile beams 4/5 using a basic tube 6 / basic strut 7 and a deck 23.

3. Fit two 1.00 m ladder frames 16 onto the mobile beams and secure them using spring clips 11.

Further assembly is in accordance with page 13 “Assembly of intermediate platforms”.

Basic assembly

Tower models 1402107, 1402109, 1402111, 1402307, 1402309 and 1402311



1. Insert the castors 1 into the mobile beams 4/5 and secure them against falling out by fastening the wing screws on the spindle nuts.

2. Connect the mobile beams 4/5 using a basic tube 6 / basic strut 7 and a rear guardrail 12 to the bar of the mobile beam.

3. Fit a 2.00 m ladder frame 15 onto the mobile beam 4/5 and secure it with spring clips 11. Suspend two rear guardrails 12 from the top rung and connect them with a second 2.00 m ladder frame 16. Then fit the second 2.00 m ladder frame 15 onto the mobile beam and secure it using spring clips 11. (Any double guardrails in stock must be installed as side protection for the first level. The rear guardrails previously installed as an advance side protection are removed again after the double guardrails have been fitted.)

4. Fit two diagonal braces 18, deck 23 and the access deck 22. **Ensure here that the two diagonal braces are installed parallel to one another in the direction of the access hatch.**

5. Climb up to the next level and fit additional rear guardrails 12 to the second rung above the platform surface.

Further assembly is in accordance with page 13 "Assembly of intermediate platforms".

Basic assembly

Tower models 1402102, 1402104, 1402126, 1402128, 1402130, 1402146, 1402148, 1402150, 1402302 and 1402304



1. Insert the castors 1 into the 1.00 m ladder frames 16 and secure them against falling out by fastening the wing screws on the spindle nuts.

2. Fit further 2.00 m ladder frames 15. Connect the two rolling tower side parts to the top rungs and to the bottom rungs, using two rear guardrails 12 in each case.

3. Install two diagonal braces 17 crosswise. Then suspend an access deck 22.

4. To keep to the maximum spacing from the first rung, fit an access ledger 8 on the access side of the rolling tower.

5. Climb up to the next level and fit additional rear guardrails 12 to the second rung above the platform surface.

Further assembly is in accordance with page 13 "Assembly of intermediate platforms".

Basic assembly

Tower models 1402103, 1402105, 1402127, 1402129,
1402131, 1402147, 1402149, 1402151, 1402303 und 1402305



1. Insert the castors 1 into the 2.00 m ladder frames 15 and secure them against falling out by fastening the wing screws on the spindle nuts.
2. Connect the two rolling tower side parts to the top rungs and to the bottom rungs, using two rear guardrails 12 in each case.
3. Fit two diagonal braces 17 and the access deck 22. Ensure here that the two diagonal braces are installed parallel to one another in the direction of the access hatch.
4. To keep to the maximum spacing from the first rung, fit an access ledger 8 on the access side of the rolling tower.
5. Climb up to the next level and fit additional rear guardrails 12 to the second rung above the platform surface. (Any double guardrails 13 in stock must be installed as side protection for the first level. The rear guardrails previously installed as an advance side protection are removed again after the double guardrails have been fitted.)

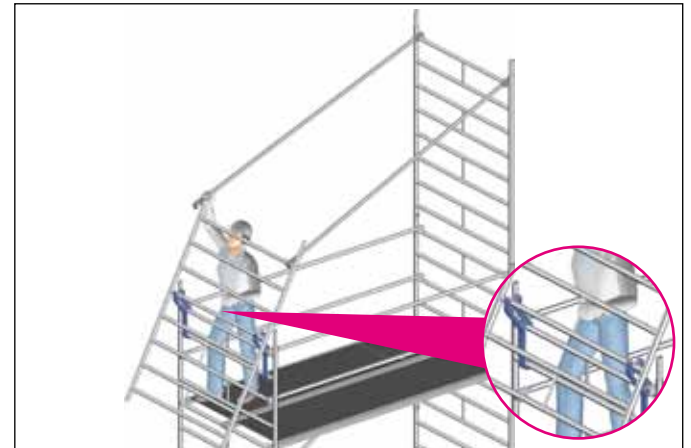
Further assembly is in accordance with "Assembly of intermediate platforms" (see on the right side).

Assembly of intermediate platforms

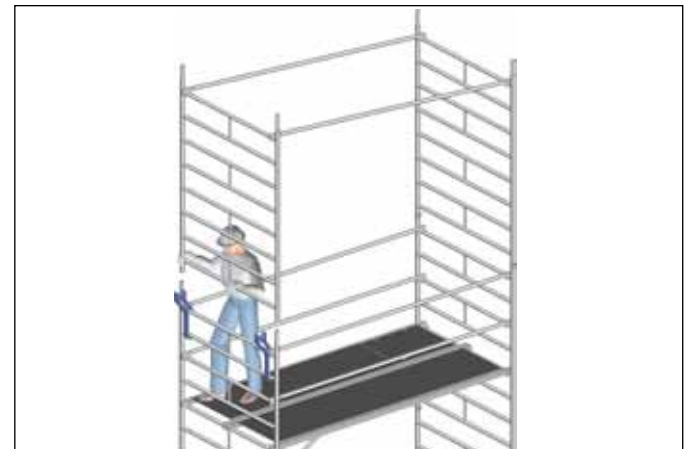
All tower models



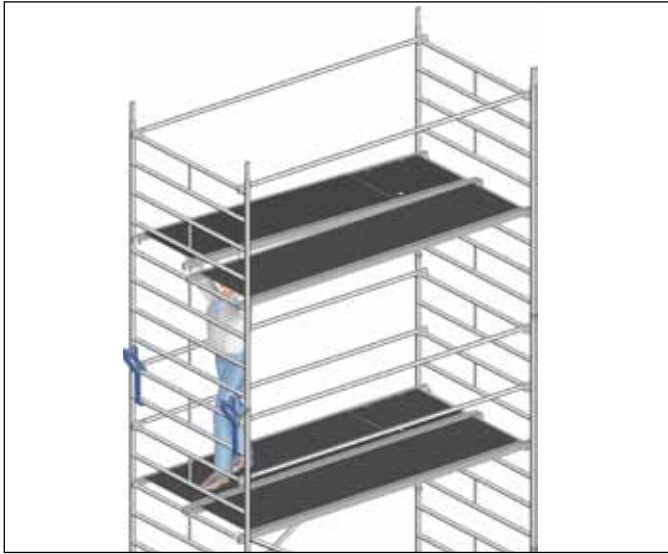
The following assembly steps 1 to 5 are repeated several times depending on the assembly height.



1. Fit the first 2.00 m ladder frame 15 and secure it with spring clips 11.
2. Attach the Uni assembly hook 24 and position the second ladder frame 15 for fitting the rear guardrails 12.



3. Swing the ladder frame with the rear guardrail upwards, fit it in place and secure it with spring clips 11.

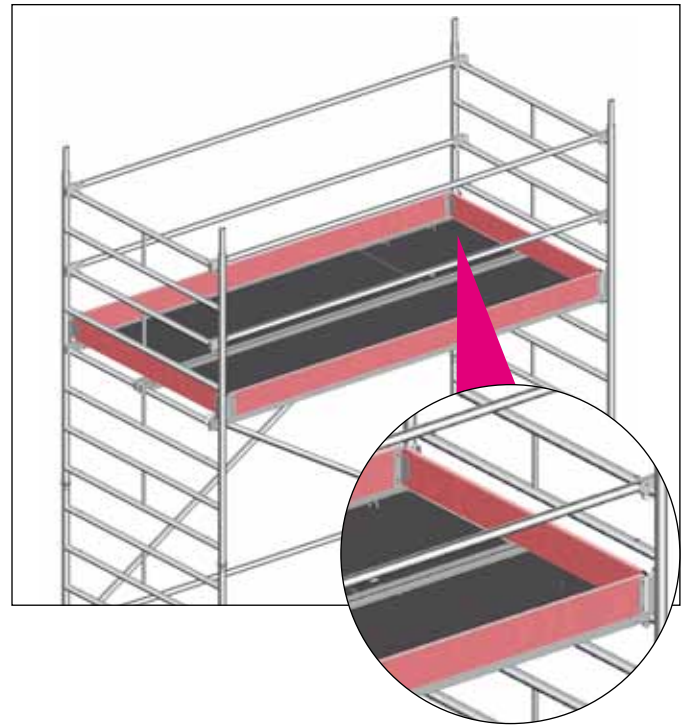


4. Insert diagonal braces 17 and access deck 22. The diagonal braces must be installed in a tower-like (zig-zag) form on both sides.



5. Climb up to the next level and fit additional rear guardrails 12 to the second rung above the platform surface.

Completion of working platform All tower models



1. To complete the working platform, attach toe boards with claw 27 and end toe boards 28.



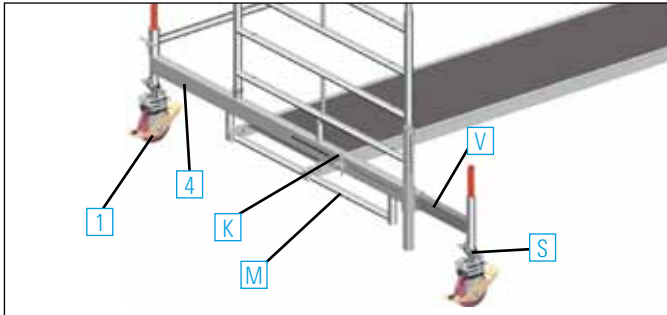
If an intermediate platform is also to be used as a working platform, attach toe boards here too.

Operating the castors



During assembly and while working, keep the castors locked by pressing down the brake lever labelled STOP. When the brake is locked, the lever labelled STOP is in the down position. For movement, unlock the castors by pushing the opposite lever down.

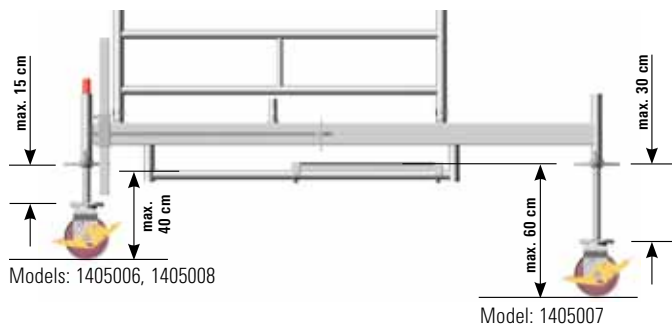
Adjustment of the mobile beam



The adjustable mobile beam 5 permits operation in the centre position and at the wall without dismantling the scaffolding. It can be retracted and extended in the assembled state. Ensure before adjustment the ballast weights specified in the ballasting table are always attached at the right place (see pages 8 – 10). For adjustment in the assembled state, lower the central support M attached to the mobile beam 4 as far as possible and secure it. Relieve the castors 1 at the sliding parts by turning the spindle S until the adjustment part V can be adjusted when the clamping wedge K has been loosened. After adjustment, fix the clamping wedge K, subject the castor 1 to load again by turning the spindle, and move the central support M upwards and secure it.

Maximum spindle adjustment of the various models

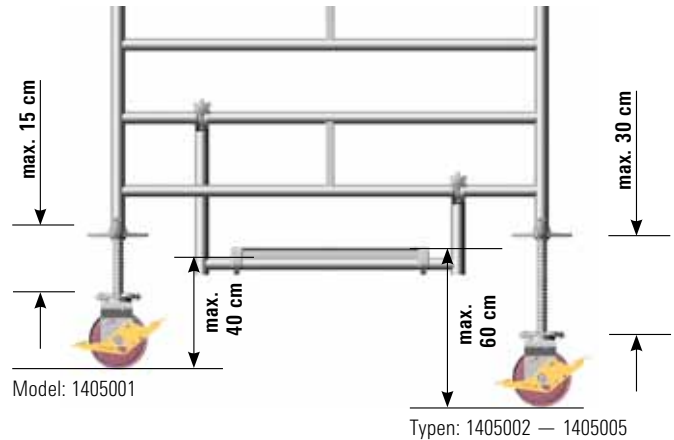
Assembly with 1323.320



Models: 1405006, 1405008

Model: 1405007

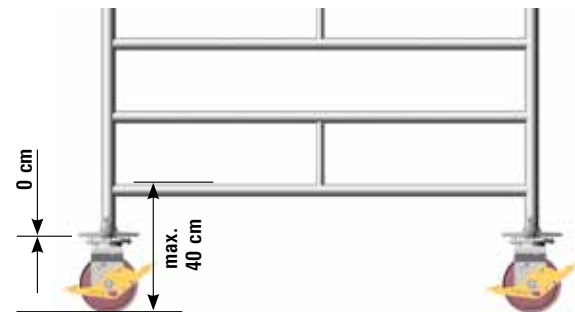
Assembly directly on castors with access ledger



Model: 1405001

Typen: 1405002 – 1405005

Assembly directly on castors



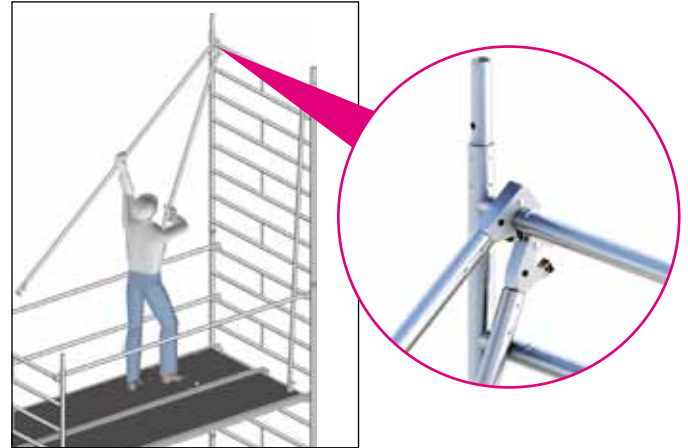
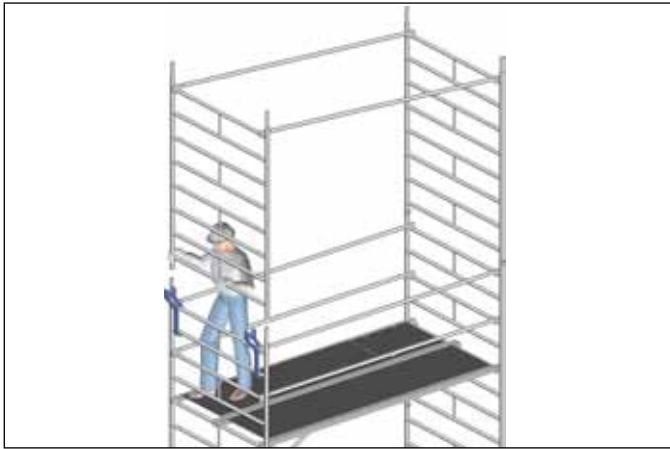
Model: 1405001

▶ 6. DISMANTLING

Dismantling is in the reverse order to assembly (see page 11 – 14).

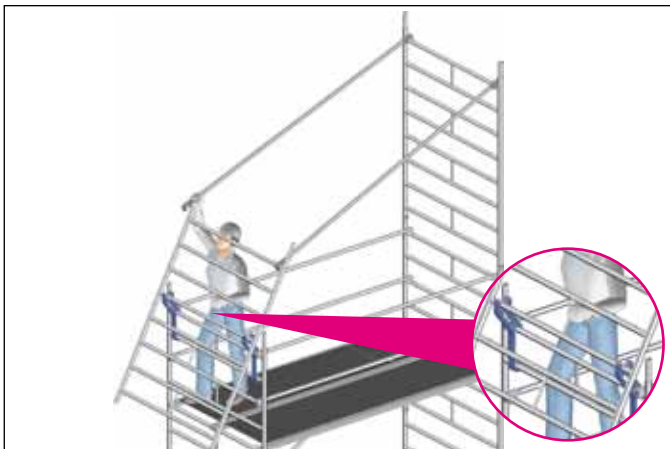
When dismantling, do not remove the bracing elements such as diagonal braces, rear guardrails or access decks until the ladder frames above them have been dismantled.

To lift out the individual parts, open the snap-on claws by pressing their locking clips.



During dismantling of an intermediate or working platform, first remove the topmost rear guardrails from the level underneath them. This is done with the aid of a rear guardrail installed at knee level.

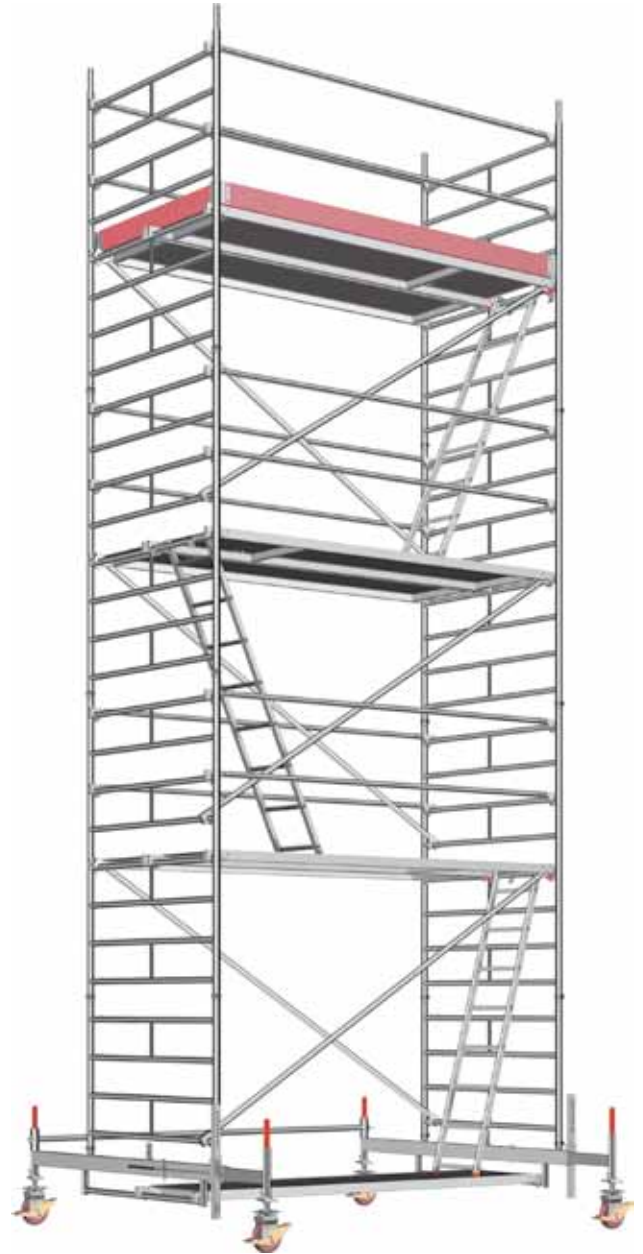
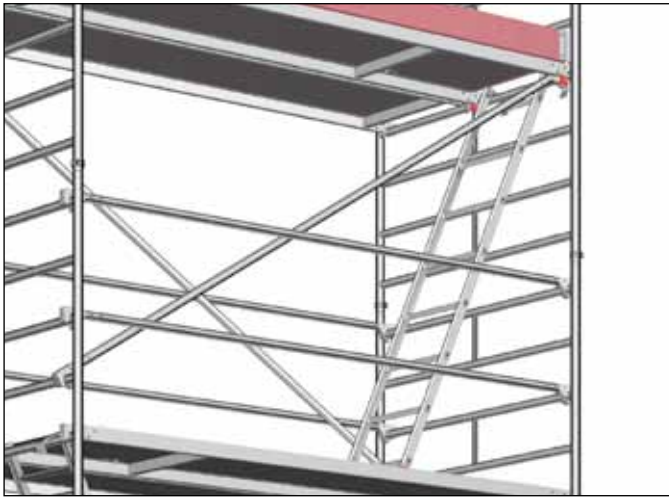
It is placed from above onto the 2nd rung and acts as a lever for opening the snap-on claw (see detail).



The red locking clips of the decks permit effortless installation and removal by a single person; first open them and place the deck with the opened clips on the rung, then open the opposite clips and lift out the deck.

▶ 7. ASCENT VIA SUSPENDED LADDER

The types 1402302–14023111 can easily be equipped with the scaffolding access ladder 32 to provide more convenient access. The ladder is simply dropped into the eighth rung of the ladder frame (deck level) on the access hatch side and placed on the deck below.



Example for assembly, model 1402104

Assembly indoors in off-centre position

Ballast: See page 8



Tower model		1402104
Working height [m]		6.5
Scaffolding height [m]		5.6
Platform height [m]		4.5
Weight [kg] (without ballast)		278.8
Ballasting		
Indoors		
Assembly central		l1 r1
Assembly off-set		X
Assembly off-set with wall bracing		X
Assembly central with 1 bracket		l0 r12
Assembly central with 2 brackets		l5 r5
Outdoors		
Assembly central		l11 r11
Assembly off-set		X
Assembly off-set with wall bracing		X
Assembly central with 1 bracket		l6 r28
Assembly central with 2 brackets		X

▶ 10. STABILIZER ATTACHMENT

Before assembly, refer to pages 12 – 13 “Basic assembly for rolling tower models without mobile beam”. With this assembly form, the fixed and adjustable mobile beams are dispensed with. They are replaced by extendable stabilizers or 5 m stabilizers.



Attach a stabilizer 28/29 to each leg of the ladder frame 15. To do so, fasten the half-coupler directly beneath the rung of the ladder frame 15. Before tightening the star handles (hand wheels), fix the stabilizers in the right position, against the wall or free-standing, and then tighten them using the star handles. Ensure that the foot is firmly on the ground by sliding the half-coupler on the stabilizer.

Fasten the lower half-coupler beneath the bottom rung of the ladder frame 15 and tighten it with the star handle. Adjust the position of the stabilizer relative to the tower. If the tower is free-standing, set the angle to 60° in each case, if it is against a wall, set the angles to 90° and 60°.

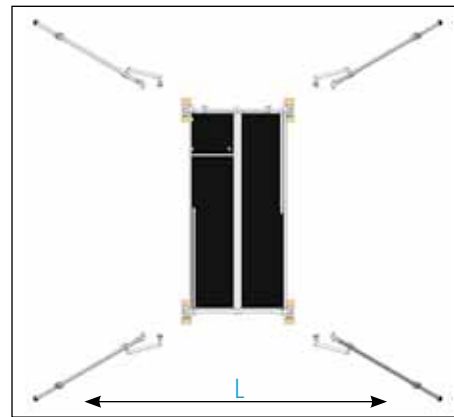
To ensure that the position cannot change, now attach the tower rotation lock 30 to the stabilizer 28/29 and to the rung of the ladder frame 15.

Adjust the tower rotation lock by moving the half-coupler on the stabilizer 28/29 such that the half-coupler is fixed beneath the first rung of the ladder frame. Ensure that the spring clips safely engage in the telescoping parts of the extendable stabilizer. When moving the tower, the stabilizer must not be lifted more than 2 cm off the ground.

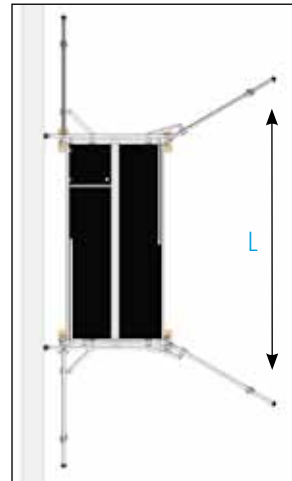
Indoors and in the central position, ballasting is not necessary. Outdoors, no ballast weight is needed up to tower model 1401127 with extendable stabilizer and central position.

For work performed on a load-bearing wall, ballasting can be provided in accordance with the ballasting table (see pages 8 – 10).

Free-standing assembly

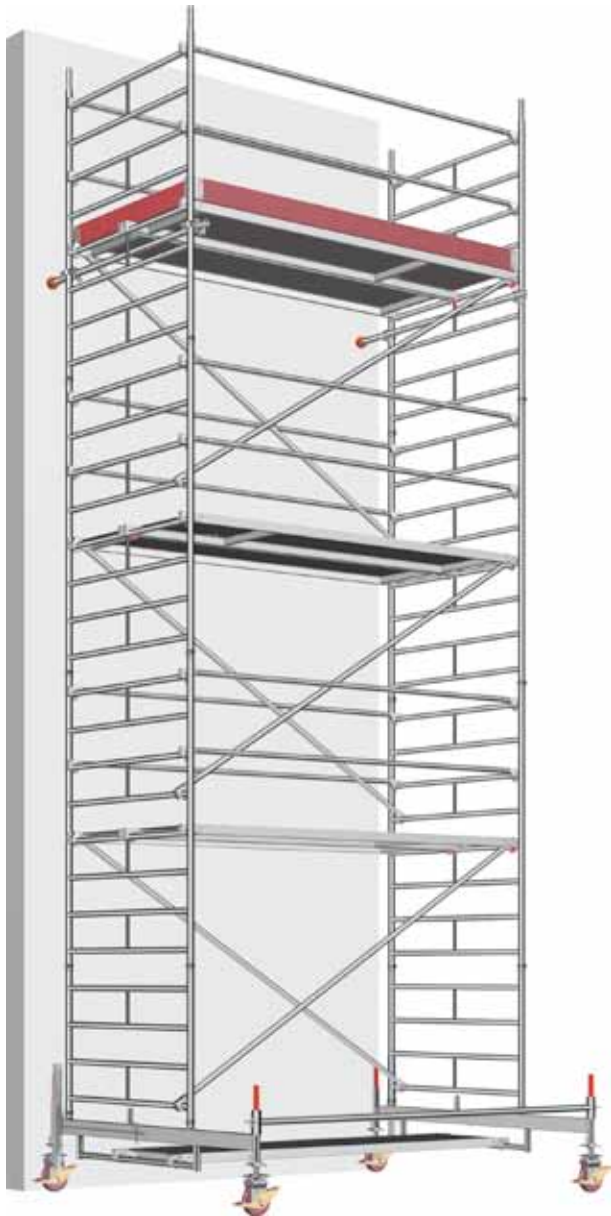


Assembly against a wall

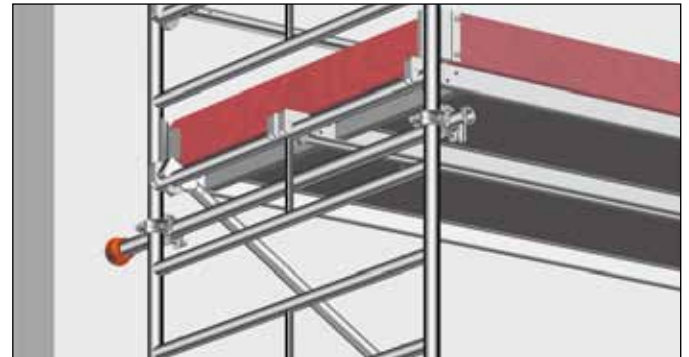


Clearance L = 3.20 m min

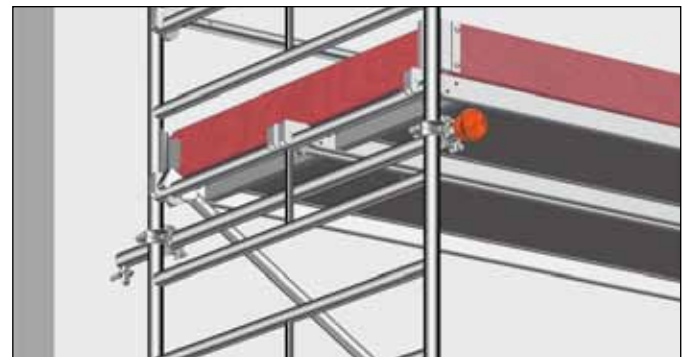
▶ 11. WALL SUPPORT (under load) ANCHORING (under load and tension)



For work performed on a load-bearing wall, ballasting can be reduced in accordance with the **Ballasting table** (see pages 8 to 10). In this case, wall supports or anchoring must be installed on both sides of the tower. Use the Uni distance tube 20 and fix it to the ladder frame 15/16 using two couplers 21 in each case. The rubber mount is positioned on the wall to provide support (see detail A). The Uni distance tube, rotated by 180°, is used for anchoring and is fitted in an eyebolt which was attached to the wall previously (see detail B). The mobile beams must be installed so that they project at the side facing away from the wall. The wall supports/anchoring must be attached at the level of the top working platform or at most 1 m below that.



Detail A



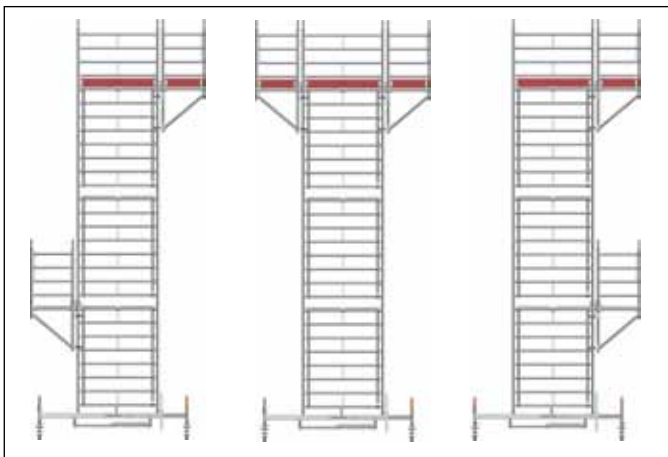
Detail B

▶ 12. ASSEMBLY WITH BRACKETS

Please refer to the table of tower models on page 8 to see which tower models are allowed to be extended with brackets.

When brackets are used, the following points must be noted in addition:

- The tower may be loaded with 1.5 kN/m² (scaffold group 2) at one working level only.
- The spindles must not be overextended.
- The corresponding working platform must be equipped with complete side protection.
- The ladder frames must be assembled in the centre position. The corresponding ballast weights (see ballasting table on p. 8 – 10) must be attached before fitting the brackets.
- A maximum of 2 bracket deck surfaces can be fitted to a tower. The bracket deck surfaces can be used either on one side, both on one side or one on each side.
- The bracket deck surfaces can be fitted at any level of the tower where a deck is provided.



WARNING

If the ballasting table is not complied with, there is an increased risk of accidents as a result of the tower tipping over due to one-sided loading.

1. Tower assembly up to the height required in accordance with the assembly sequence already described (see page 11 ff.).
2. Before fitting of brackets, remove the side protection at a height of 0.5 m and the toe boards at this point.
3. At the access level, bolt on 2 brackets at each side using the couplers in such a way that the rungs of the aluminium brackets 0.75 m are at the same level as the ladder frame rungs.
4. Now suspend the deck from the bracket rungs.



5. Fit a 1 m ladder frame onto each of the brackets 0.75 m and then mount the side protection removed earlier at a height of 1 m. The guardrail still remaining on the tower can be fitted at a height of 0.5 m
6. Place the intermediate deck 2.85 m between the deck and the access deck and snap it into the bracket rungs 0.75 m.
7. Complete the regulation side protection, which depends on the tower model concerned, by fitting and adjusting the toe boards 2.85 m between the ladder frames on the bracket and secure them by inserting end toe boards.
8. To attach a second bracket deck surface, repeat the steps 2 – 7.

Dismantling

Dismantling of the brackets is in the reverse order to that of the assembly steps. After removal of the brackets, the entire tower can be dismantled as described in "Dismantling" on page 17.

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