

LAYHER UNI COMPACT P2 INSTRUCTIONS FOR ASSEMBLY AND USE

DIN EN 1004-2-DE



Edition 04.2022

Ref. No. 8107.333

Mobile working platforms
According to DIN EN 1004-1:2021
working platform 1.50 x 1.80 m

max. working height:
indoors 10.60 m
outdoors 9.70 m
permissible load 2.0 kN/m²
on max. one working level
(Load class 3 according to
DIN EN 1004-1:2021)



CONTENTS

1.	Introduction	4
2.	General instructions for assembly and use	5
3.	Measures for fall protection.....	8
4.	Tower models	10
5.	Assembly sequence.....	12
6.	Dismantling sequence.....	17
7.	Ballasting	20
8.	Wall support and anchoring	23
9.	Parts list	24
10.	Stabiliser attachment	25
11.	Components of the system	26
12.	Certificate.....	30

NOTE

The DIN EN 1004-2-compliant products or assembly variants shown in these Instructions for Assembly and Use may be subject to country-specific regulations. Subject to local regulations, we reserve the right not to supply all of the products illustrated here.

Beyond the currently valid General Terms of Sale of Wilhelm Layher GmbH & Co KG, **no liability** is assumed for damage of whatever nature that has been incurred due to the following reasons:

- ▶ Non-compliance with instructions
- ▶ Improper assembly, and use of the product not for its intended purpose
- ▶ Use of non-original and damaged Layher components
- ▶ Unauthorised structural changes
- ▶ Improperly performed repairs, including and above all when non-original Layher spare parts are used
- ▶ Events caused by force majeure (disasters, foreign objects)

The respective user shall ensure on their own responsibility that the points as stated and also the current safety regulations are complied with and that use for the intended purpose is assured.

These Instructions for Assembly and Use must:

- ▶ be available at the place of use of the mobile working platform.
- ▶ be fully respected during the assembly, modification and dismantling of the mobile working platform, including all specifications they contain, and no modifications to them are permitted or are permissible only after consultation with the manufacturer.

 These instructions cannot cover all the possible applications. If you have any questions regarding specific applications, please contact your local Layher partner who will be happy to advise you on all questions relating to the products, their use or special assembly regulations.

EXPLANATION OF SYMBOLS

 Additional information and notes on the assembly, modification, dismantling and use of mobile working platforms and situations in which it is necessary to consult with the manufacturer are indicated by the symbol opposite.

 When assembling, modifying, dismantling or using mobile working platforms, failure to observe the present Instructions for Assembly and Use and the applicable work safety regulations may result in a variety of hazards and/or require increased attention on the part of the user. Situations in which such hazards may arise and/or in which users must be required to pay increased attention are indicated by the symbol opposite.

 When assembling, modifying, dismantling or using mobile working platforms, failure to observe the present Instructions for Assembly and Use and the applicable work safety regulations may result in risks due to electrical voltages. Situations in which risks due to electrical voltages may arise are indicated by the symbol opposite.

 When assembling, modifying, dismantling or using mobile working platforms, failure to observe the present Instructions for Assembly and Use and the applicable work safety regulations may result in risks of falling. Situations in which risks of falling may arise are indicated by the symbol opposite.

1. INTRODUCTION

General

These instructions for assembly and use relate to the assembly, modification and dismantling of the **Uni Compact** mobile working platform made by Wilhelm Layher GmbH & Co. KG, of Göglingen-Eibensbach, Germany.



Number of persons required for assembly, modification and dismantling: ▶ 2 persons

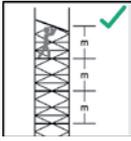
Caution: Layher Uni Compact may only be assembled, modified and dismantled under the supervision of a person who has been qualified, trained and authorised for operations involving "mobile working platforms".

2. GENERAL DIRECTIONS FOR ASSEMBLY AND USE

The mobile working platform may be used for the specified load class in accordance with the stipulations of DIN EN 1004 and taking into account the appropriate sections of the German Ordinance on Industrial Safety and Health (BetrSichV).

The user of the mobile working platform must comply with the following instructions:

- ▶ The user must verify the suitability of the selected mobile working platform for the work to be performed (Section 4 of BetrSichV).
- ▶ The maximum platform height for mobile working platforms in accordance with DIN EN 1004 is
 - inside buildings: 12.00 m
 - outside buildings: 8.00 m
- ▶ Assembly, modification or dismantling of the mobile working platform in accordance with the present instructions for assembly and use may only be performed under the supervision of a qualified person or by professionally suitable employees after special instruction. Only the models shown in these instructions for assembly and use may be built and also used. The mobile working platform must be inspected before, after or during assembly, but no later than before it is put into service (Section 14 of BetrSichV). During assembly, modification or dismantling, the mobile working platform must be marked with a keep-out sign indicating "no entry" (BetrSichV Annex 1, Para. 3).
- ▶ It must first be checked that all parts, auxiliary tools and safety equipment for assembling the mobile working platforms are available at the site.
- ▶ All ladder frame joints must always be secured using spring clips.
- ▶ The access hatches must be kept shut whenever they are not in use.
- ▶ Mobile working platforms are not designed to be covered. Mobile working platforms are not designed to be used as side protection.
- ▶ If stipulated, the base must be widened by means, for example, of mobile beams or stabilisers or outriggers and ballast must be installed.
- ▶ Stability **must be ensured during every phase** of assembly and dismantling as well as when the platform is moved. **The necessary ballast weights and/or wall supports** (see corresponding section in these Instructions for Assembly and Use) **must generally be attached before any risk of falling arises.**
- ▶ The adjustable mobile beams may only be inserted in conformity with the instructions for assembly and use. Any ballasting that is required must be installed prior to adjustment in accordance with the ballast specifications given in the section on "Models".
- ▶ To assemble the upper platforms, the individual parts must be passed up from one level to the next. Small quantities of tools and materials can be carried up by the personnel, or failing that hoisted to the working level using transport ropes.
- ▶ On intermediate levels used solely for ascent, toe boards can be dispensed with.
- ▶ Working on two or more working levels at the same time is not permitted. In the event of exceptions, the manufacturer must be consulted. When work is being done on several levels, they must be completely fitted with 3-part side protection.
- ▶ It is necessary to prevent horizontal and vertical loads that can cause the mobile working platform to topple over, for example:
 - by pushing against the side protection
 - additional wind loads (tunnel effect of through-type buildings, unclad buildings and corners).
- ▶ Before installation, all parts must be inspected to ensure they are in flawless condition. Only undamaged original parts of the mobile working platforms from Layher may be used. Components such as snap-on claws and spigots must be cleaned of dirt after use. Components must be secured against slipping and impacts when transported by truck. Components must be handled in such a way that they are not damaged.
- ▶ The mobile working platforms must not be subjected to any aggressive fluids or gases.
- ▶ Couplers in the structures must be tightened to 50 Nm.



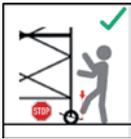
The maximum distance between the platforms must not exceed 2.25 m. Exception: The distance between the assembly level (the ground) and the first platform. The maximum distance permitted here is 3.40 m.



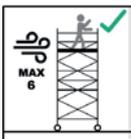
Mobile working platforms must be set to the perpendicular using the adjusting spindles or by inserting suitable materials underneath them. The maximum permitted tilt is 1 % (in horizontal direction = scaffolding length / 100).



Movement is only permitted on sufficiently firm ground with a max. inclination of 4% (approx. 2.5°), in the longitudinal direction or perpendicular to this, and the speed must not exceed normal walking pace (4 km/h). All impacts must be avoided.



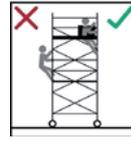
After movement, the wheels must be locked by pressing down the brake lever.



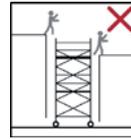
When used in the open air or in open buildings, **any work on the mobile platform must be stopped immediately if the wind strength exceeds 6 on the Beaufort scale.** At these wind speeds or at the end of a shift, mobile working platforms must be moved to a location where they are protected from the wind or must be or suitable measures must be taken to secure them against toppling over.



A wind strength of more than 6 can be recognized by noticeable difficulty in walking. If possible, mobile working platforms used outside buildings must be securely fastened to the building itself or to another structure. It is recommended that mobile work platforms be anchored if they are left unattended.



Upward access to mobile working platforms is permitted only on the inside of the tower. External access is not permitted.



It is not permitted to climb onto and across different mobile working platforms, to climb onto mobile working platforms from other objects or structures or to jump onto deck surfaces.



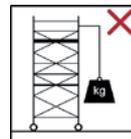
Due to the maximum load-bearing capacity of the structure, there may be a limit to the number of persons who may be present on a working level at any given time. This maximum load on the working level due to persons, tools and material must be checked in advance and be limited if necessary.



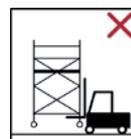
Failure to respect the maximum load limit can overload the structure and/or cause it to collapse. Serious or fatal injuries are possible.



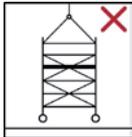
It is not permitted to increase the platform height by using ladders, boxes or other mechanisms.



It is not permitted to lift heavy objects by attaching and using lifting gear at mobile working platforms.



It is not permitted to lift mobile working platforms using mechanical equipment.



In the standard version, mobile work platforms are not designed to be lifted or suspended.



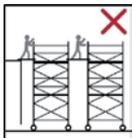
In certain cases, and following consultation with the manufacturer, it may be possible to reinforce the structure by replacing the appropriate components.



It is not permitted to move the mobile platform when persons and/or loose objects are present on it.



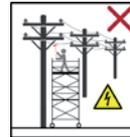
It is not permissible to stand and move around on unsecured levels/platforms of mobile working platforms.



In the standard version, it is not permitted to establish bridges between different mobile working platforms or between mobile working platforms and other objects or structures.



In certain cases, and following consultation with the manufacturer, this may be possible if the structure is reinforced (special construction form) and a special verification of stability is performed for this or a structural calculation is performed.



When working with mobile working platforms at or in the vicinity of electrical equipment and overhead cables, it is necessary to respect the following additional instructions.

- It is only permissible to assemble and use mobile working platforms if:
- ▶ the equipment is no longer live.
 - ▶ the deactivated equipment has been secured against reactivation.
 - ▶ the equipment has been checked for the absence of voltage.
 - ▶ neighbouring live parts have been secured by means of protective mechanisms.
 - ▶ in the case of work performed in the vicinity of overhead electrical cables, an adequate safety distance as specified in VDE 0105-100 can be/is respected.



3. MEASURES FOR FALL PROTECTION

Fall protection during assembly, modification or dismantling of rolling towers

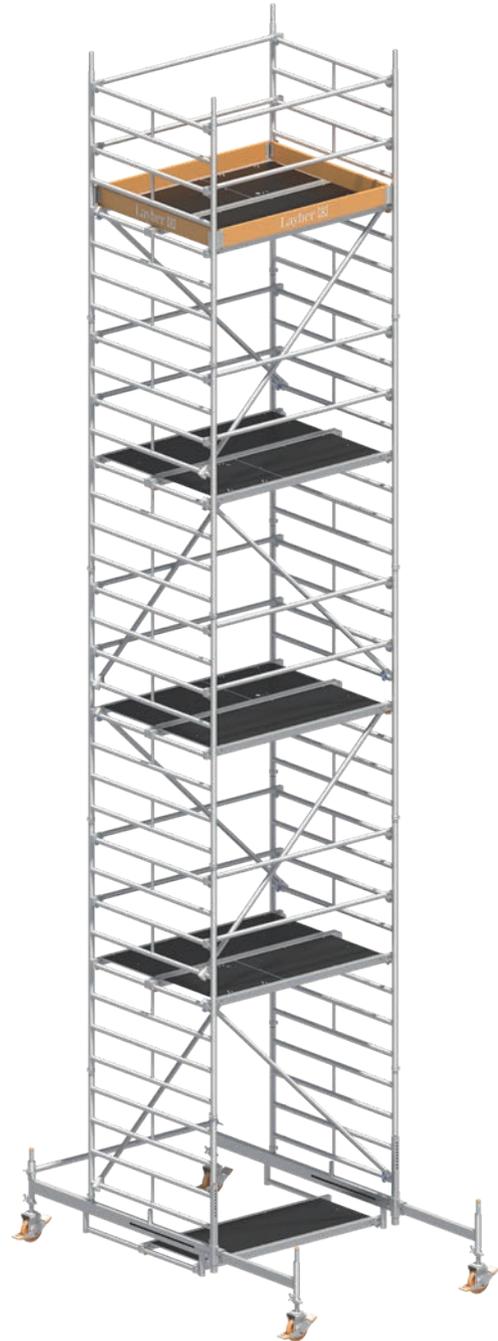
General

Suitable measures for fall protection must be taken during assembly, modification or dismantling of the tower. Safety Structure P2 implements these protective measures in full.

Safety Structure P2

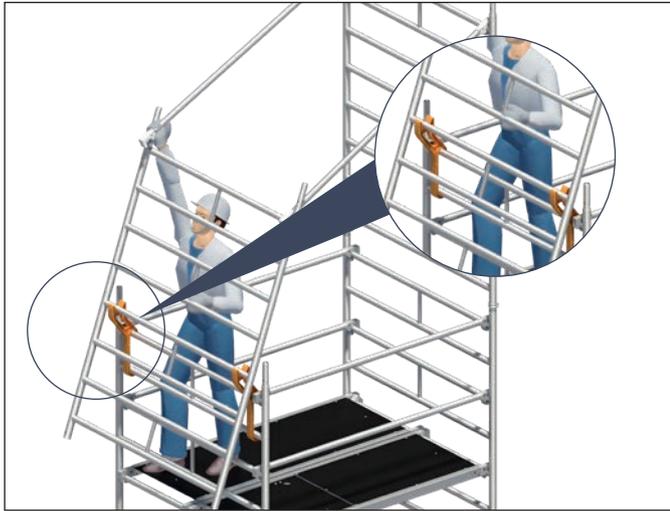
- ▶ Platforms with vertical spacing of 2 m.
- ▶ Safe design with integrated and collective side protection.

Thanks to the platforms, which are assembled 2 m apart, the handrails can already be fitted from the level underneath and intermediate rails can be fitted from the secured area of the access hatch, so that when the next platform up is accessed there is already a two-part side protection in place on all sides.



THE PRINCIPLE – SIMPLER. FASTER. SAFER.

1. Fit the first ladder frame.
Attach the Uni assembly hook and position the second ladder frame in order to fit the guardrails.



2. Swivel the ladder frame with guardrail upwards and fit it in place.



3. Insert diagonal braces and access deck.



4. Assemble the intermediate rails from a secured position in the area of the access hatch.

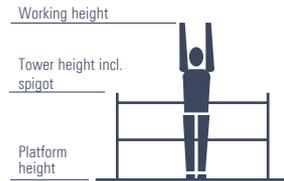


4. TOWER MODELS

For assembly outdoors comply with the height restriction!

Tower models

1405001 – 1405008



1405001



1405002



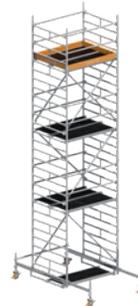
1405003



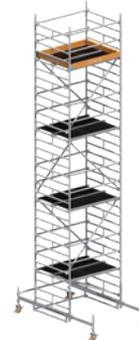
1405004



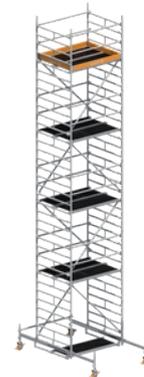
1405005



1405006



1405007



1405008

Tower model	1405001	1405002	1405003	1405004	1405005	1405006	1405007	1405008
Working height [m]	3.20	4.20	5.20	6.20	7.20	8.38	9.38	10.38
Tower height [m]	2.43	3.43	4.43	5.43	6.43	7.61	8.61	9.61
Platform height [m]	1.20	2.20	3.20	4.20	5.20	6.38	7.38	8.38
Weight [kg] (without ballast)	108.3	152.5	192.0	224.0	263.5	377.4	422.5	448.9
Ballasting								
Indoors								
Assembly central	0	l1 r1	l1 r1	l4 r4	l4 r4	0	0	l1 r1
Assembly off-centre	X	X	X	X	X	0	0	l1 r1
Assembly off-centre with wall bracing	0	l2 r0	l2 r0	l4 r0	l4 r0	0	0	l1 r1
Outdoors								
Assembly central	0	l1 r1	l3 r3	l7 r7	l11 r11	l13 r13	l17 r17	X
Assembly off-centre	X	X	X	X	X	l13 r13	l17 r17	X
Assembly off-centre with wall bracing	0	l2 r0	l4 r0	l10 r4	l14 r4	l13 r13	l17 r17	X

For assembly with adjustable mobile beam, the latter must be fully extended. X = not permissible/ not possible 0 = no ballast required Specified as number of ballast weights at 10 kg each.

For ballasting, use Layher ballast weights, Ref. No. 1249.000, of 10 kg each. Fasten the weights quickly and securely at the right place using the coupler handwheel.

Do not use any liquid or granular ballast substances. The ballast weights must be distributed evenly to all ballasting fixing points (see page 20 – 22)

Example: l2, r2 → Fasten 2 ballast weights of 10 kg each to the ladder frame on its left-hand side, and 2 ballast weights of 10 kg each on its right-hand side

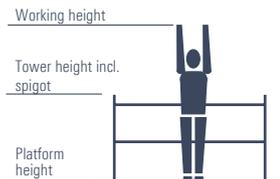
r relates in the case of off-centre assembly always to the side facing away from the tower; l and L relate to the side facing the tower (see also Section 7, Ballasting, on pages 20 – 22)

TOWER MODELS WITH STABILISERS, EXTENDABLE

For assembly outdoors comply with the height restriction!

Tower models

1405022 –1405028



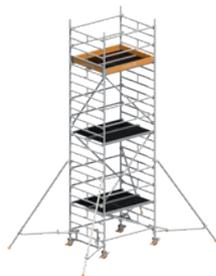
1405022



1405023



1405024



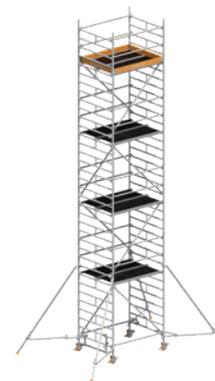
1405025



1405026



1405027



1405028

Tower model	1405022	1405023	1405024	1405025	1405026	1405027	1405028
Working height [m]	4.20	5.20	6.20	7.20	8.20	9.20	10.20
Tower height [m]	3.43	4.43	5.43	6.43	7.43	8.43	9.43
Platform height [m]	2.20	3.20	4.20	5.20	6.20	7.20	8.20
Weight [kg] (without ballast)	181.2	237.3	252.6	308.7	324.1	380.2	395.6
Ballasting							
Indoors							
Assembly central	0	0	0	0	0	0	0
Assembly off-centre	0	0	L0 R2	L0 R2	L0 R4	L0 R4	L0 R6
Assembly off-centre with wall bracing	0	0	0	0	0	0	0
Outdoors							
Assembly central	0	0	I2 r2	I4 r4	I9 r9	I12 r12	X
Assembly off-centre	0	L0 R2	L0 R4	L0 R6	L0 R10	L0 R14	X
Assembly off-centre with wall bracing	0	0	0	0	0	0	X

For assembly with adjustable mobile beam, the latter must be fully extended. X = not permissible/not possible 0 = no ballast required Specified as number of ballast weights at 10 kg each.

For ballasting, use Layher ballast weights, Ref. No. 1249.000, of 10 kg each. Fasten the weights quickly and securely at the right place using the coupler handwheel.

Do not use any liquid or granular ballast substances. The ballast weights must be distributed evenly to all ballasting fixing points (see page 20 – 22)

Example: I2, r2 → Fasten 2 ballast weights of 10 kg each to the ladder frame on its left-hand side, and 2 ballast weights of 10 kg each on its right-hand side

r relates in the case of off-centre assembly always to the side facing away from the tower; I and L relate to the side facing the tower (see also Section 7, Ballasting, on pages 20 – 22)

5. ASSEMBLY SEQUENCE Safety Structure P2

Observe the general directions for assembly and use on pages 5 – 7. The assembly examples shown are intended for use up to a maximum platform height of 12 m indoors and up to a maximum platform height of 8 m outdoors. Snap the snap-on claws of all parts into the ladder frames from above. Level the tower after basic assembly. This is done using the threaded spindles of the wheels 1.



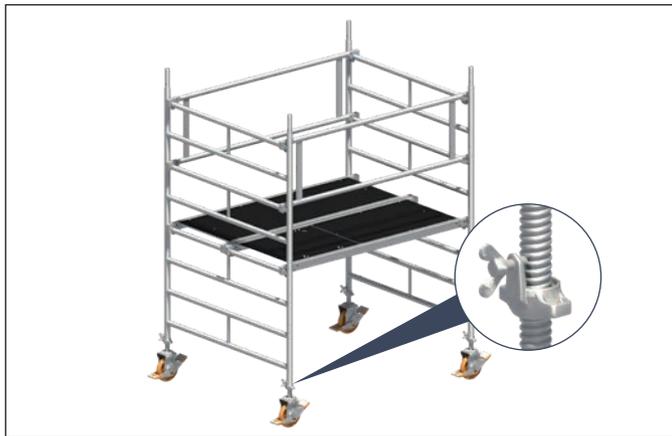
The wheels must be locked during assembly, modification or dismantling and while there is anybody on the tower.

Hammer home the wedges in the system until the blow bounces off. Always tighten the screw couplers well (50 Nm).

At the top level, a double guardrail 13 or a tower beam 14 can be fitted instead of two single guardrails. Please remember in this case that two additional guardrails must be provided for assembly and dismantling in order to ensure collective side protection. They can be removed again after insertion of the double guardrail or rolling tower beam.

The item numbers for the components relate to the component list on pages 26 – 29.

Basic assembly Tower model 1405001



1. Insert the wheels 1 into the 2.00-m ladder frames 25 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the two ladder frames 25 to two double guardrails 13. Hook the access deck 23 and the deck 22 into the fourth rung from the bottom of the 2.00-m ladder frames 25.

Further assembly is performed as per page 15, “Completing the working platforms”.

Basic assembly Tower models 1405006 and 1405008



1. Insert the wheels 1 into the mobile beams 8 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the mobile beams 8 with a basic tube 10, a basic strut 11 and a deck 22.
3. Fit two 1.00-m ladder frames 26 onto the mobile beams and secure them using spring clips 24.

Further assembly is performed as per page 14, “Assembly of intermediate platforms”.

Basic assembly

Tower model 1405007



1. Insert the wheels 1 into the mobile beams 8 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the mobile beams 8 to one another with a basic tube 10, a basic strut 11 and a guardrail 12 on the bar of the mobile beam.
3. Fit a 2.00-m ladder frame 25 onto the mobile beam 8 and secure it using spring clips 24. Hook two guardrails 12 over the top rung and connect them to a second 2.00-m ladder frame 25. Fit the second 2.00-m ladder frame 25 onto the mobile beam and secure it using spring clips 24. (Any double guardrails that might be in stock must be installed as side protection for the first level. The guardrails previously installed as advancing side protection are removed again after fitting of the double guardrails.)
4. Fit two diagonal braces 17, a deck 22 and an access deck 23. **Ensure that one diagonal brace is installed in the direction of the access hatch, and the second diagonal brace on the deck side is fitted in the same direction but with the snap-on claw snapped into the rungs from below.** The two diagonal braces can optionally also be installed in opposite directions (not shown).
5. Before going up, fit two additional guardrails 12 as intermediate rails to the second rung above the standing surface, starting from the assembly surface (floor).

Further assembly is performed as per page 14, "Assembly of intermediate platforms".

Basic assembly

Tower models 1405002, 1405004 / 1405022, 1405024, 1405026, 1405028

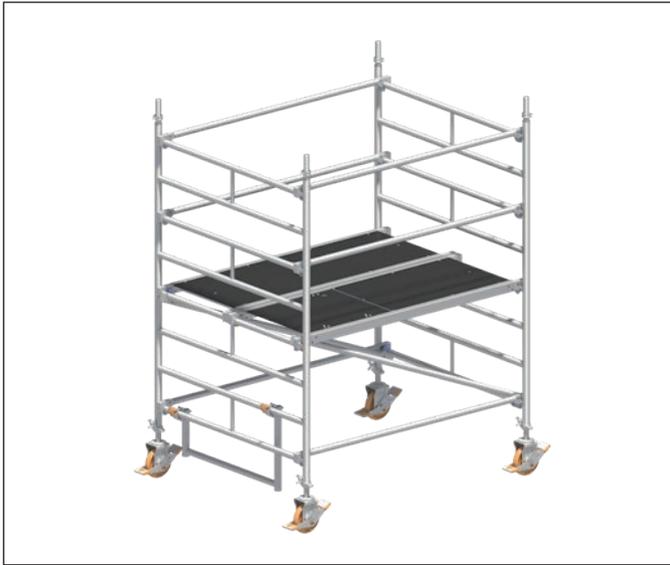


1. Insert the wheels 1 into the 1.00-m ladder frames 26 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Fit further 2.00-m ladder frames 25. Connect the ladder frames at the top rungs and at the bottom rungs to two guardrails 12 in each case. (Recommended: assembly by two persons or with the aid of the assembly hooks 28.)
3. Fit two diagonal braces 16 crosswise. Then hook in an access deck 23 and a deck 22.
4. Fit two access ledgers 27 at the bottom, to the first and the second rungs of the ladder frame, and then hook in a deck 22. As the minimum needed to maintain the maximum distance from the first rung, it is sufficient to fit one access ledger 27 on the ascent side (not shown).
5. Climb up on the inside using the rungs of the ladder frame and through the access hatch provided. While sitting in the access hatch opening, protected from falling by the sides of the access deck 23, assemble the intermediate rail of the next level: to do so, fit the guardrails 12 to the second rungs above the standing surface (see also *Assembly of intermediate platforms, item 5*)

Further assembly for the model 1405002 is performed as per page 15, "Completing the working platform"; for the model 1405004 as per page 14 "Assembly of intermediate platforms"; for the model 1405022 as per page 25 "Stabiliser Attachment" and as per page 15 "Completing the working platform"; and for the remaining models as per page 25 "Stabiliser Attachment" and page 14 "Assembly of intermediate platforms".

Basic assembly

Tower models 1405023, 1405025, 1405027



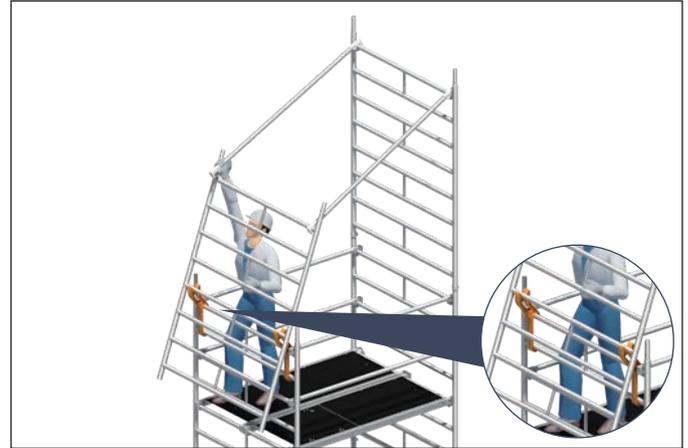
1. Insert the wheels 1 into the 2.00-m ladder frames 25 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the two ladder frames at the top rungs and at the bottom rungs to two guardrails 12 in each case.
3. Fit two diagonal braces 17, a deck 22 and an access deck 23. **Ensure that one diagonal brace is installed in the direction of the access hatch, and the second diagonal brace on the deck side is fitted in the same direction but with the snap-on claw snapped into the rungs from below. The two diagonal braces can optionally also be installed in opposite directions, cross-wise (not shown).**
4. To maintain the maximum distance from the first rung, fit an access ledger 27 on the ascent side of the rolling tower.
5. Before going up, fit two additional guardrails 12 as intermediate rails to the second rung above the standing surface, starting from the assembly surface (floor).

Further assembly is performed as per "Assembly of intermediate platforms" (see right-hand side).

Assembly of intermediate platforms

All tower models

 Repeat the following assembly steps 1 to 5 several times depending on the assembly height.



1. Fit first 2.00-m ladder frame 25 and secure it using spring clips 24.
2. Attach the Uni assembly hooks 28 and position the second ladder frame 25 in order to fit the guardrail 12.



3. Swivel the ladder frame with guardrail upwards, fit it in place and secure it with spring clips 24.

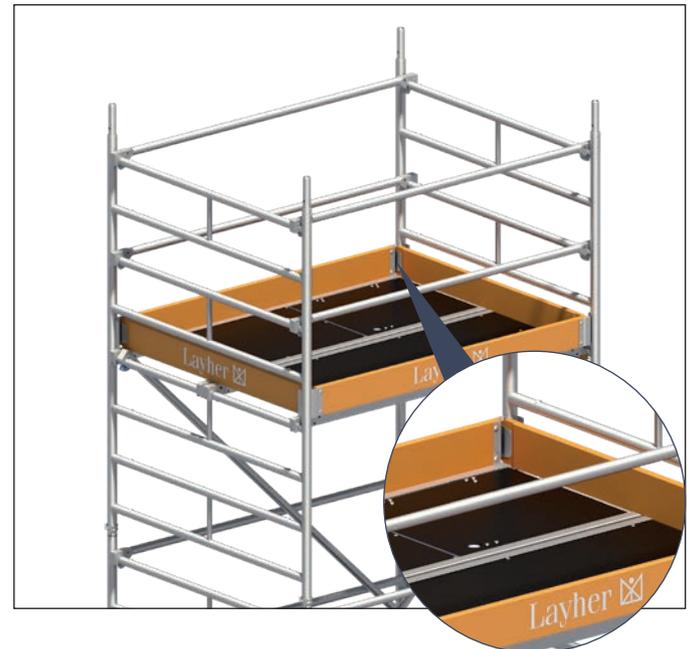


4. Insert diagonal braces 16, access deck 23 and deck 22. Install the diagonal braces on both sides in tower-like (zig-zag) form.



5. Climb up on the inside using the rungs of the ladder frame and through the access hatch provided. Further assemble the intermediate rail for the next level while sitting in the access hatch opening, protected from falls by the rails of the access deck 23; to this end, the guardrails 12 are mounted on the second rung above the platform area.

Completing the working platform All tower models



1. To complete the working platform, attach toe boards with claw 21 and end toe boards 20.



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

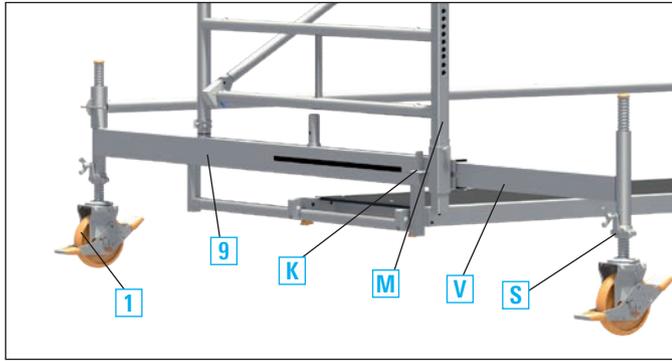
Operating the wheels



During assembly and while working, lock the wheels by pressing down the brake lever labelled STOP.

When the brake is locked, the lever labelled STOP must be in the down position. To move the structure, unlock the wheels by pressing the opposite lever.

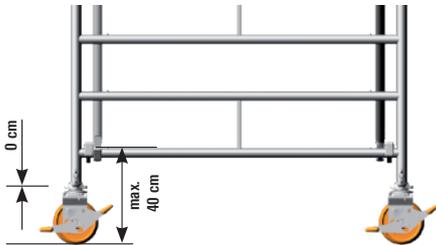
Adjusting the mobile beam



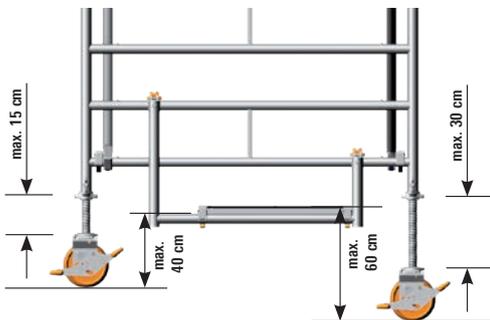
The adjustable mobile beam 9 permits working in a central position and at the wall without dismantling the tower. It can be pushed in and out in the assembled state. Before performing adjustment, it is necessary to ensure that all the ballast weights specified in the ballasting table are attached at the right place (see page 8). For adjustment in the assembled state, lower the central support M attached to the mobile beam 9 as far as possible and secure it. Take the load off the wheels 1 at the sliding parts by turning the spindles S far enough for the adjusting part V to be adjusted after releasing the clamping wedge K. After adjustment, fix the clamping wedge K in place, put the load back onto the wheel 1 by extending the spindle, and then raise and secure the central support M.

Maximum spindle extension of the different models

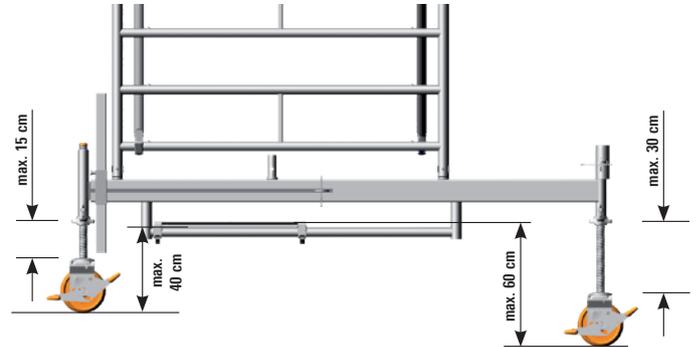
Assembly directly on wheels



Assembly directly on wheels with access ledger



Assembly with 1323.320



6. DISMANTLING SEQUENCE

Dismantling is performed in the reverse order to assembly.

When dismantling, do not remove the bracing elements such as diagonal braces, 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.

1. Dismantle the toe boards (only necessary on the work platform).



2. While sitting in the access hatch opening, protected from falling by the sides of the access deck 23, dismantle the intermediate rails of the respective level: to do so, remove the guardrails 12 at the second rungs above the standing surface. If the snap-on claws of the guardrails 12 are not reachable from the sitting position in the access hatch opening, dismantle as described under 3a (page 18).



3. Dismantle the access deck 23 and diagonal braces 16.
4. Attach the Uni assembly hooks 28 at the side of the access hatch opening above, and remove the spring clips 24 on one side.
5. Lift out the ladder frame 25 on the side of the Uni assembly hooks, swivel it downwards with the rail and position it in the previously fitted Uni assembly hooks 28.



6. Detach the guardrails 12 from the positioned ladder frame on one side.

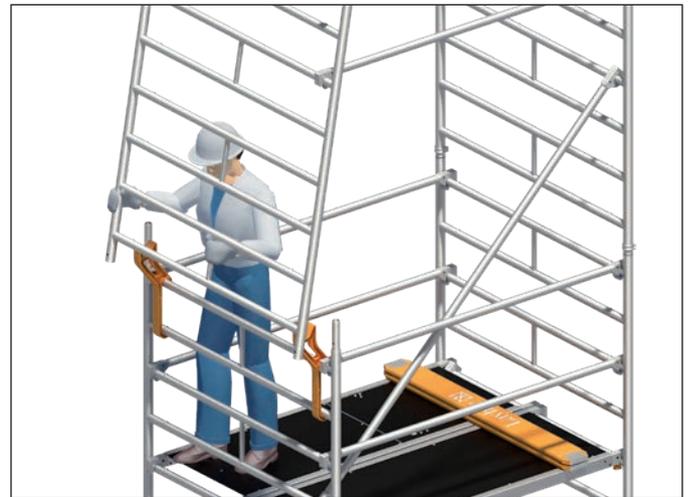


7. Dismantle the guardrails 12 by opening the snap-on claw using one of the intermediate rails dismantled under point 3. Place the loose guardrail 12 onto the 2nd rung from the top, to act as a lever for opening the locking clip of the snap-on claw (see detail).

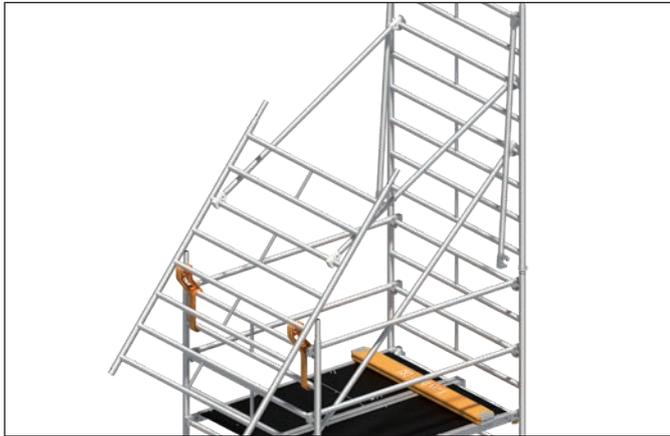
Alternative dismantling sequence:



- 3a. While sitting in the access hatch opening, protected from falling by the sides of the access deck 23, release the snap-on claws of both guardrails on one side and put them down, on the side of the access hatch and 1 metre above the standing surface.
- 4a. After climbing down to the platform underneath, dismantle the access deck 23 and the diagonal braces 16.
- 5a. Attach the Uni assembly hooks 28 at the side of the access hatch opening above and remove the spring clips 24 on one side.



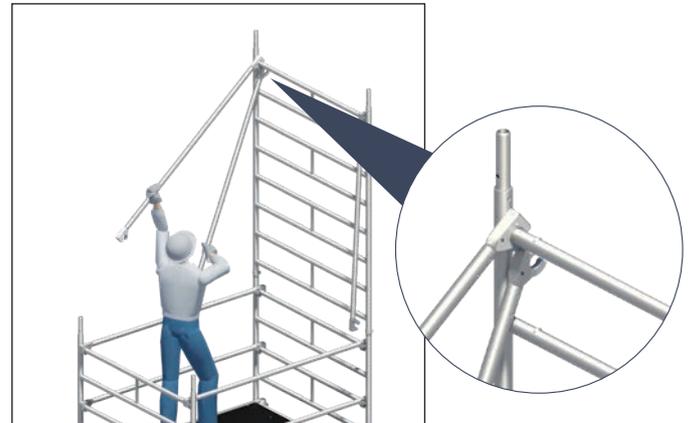
6a. Lift out the ladder frame 25 on the side of the Uni assembly hooks and swivel it downwards with the guardrails released on one side under 2. and the still attached intermediate rails, in order to position this unit into the previously fitted Uni assembly hooks 28. Take care when swivelling it down that the guardrails 12 released on one side at the top rung of the ladder frame can slide outwards, allowing the complete unit to be positioned in the Uni assembly hooks 28.



7a. Moving the upper guardrails 12, already released on one side, on the outside past the upper ends of the ladder frame positioned in the Uni assembly hooks 28 allows the ladder frame to be positioned for later dismantling.



8a. Using the end toe board or a guardrail additionally available, to act as extensions, release the locking clip of the snap-on claws on one of the intermediate rails still attached, guardrail 12, about 2.5 metres up in order to lift out the snap-on claw on one side. After that, release the guardrail 12 released on one side, at that side in which it is positioned in the Uni assembly hooks 28, and remove it by rotating it 90° about its own axis.



9a. Lift out the second intermediate rail still remaining, guardrail 12, on one side, in that side in which it is positioned in the Uni assembly hooks, and swivel the ladder frame 25 in the Uni assembly hooks 28 into a vertical position, so that the three guardrails 12 still remaining can then be removed using the guardrail 12, already removed under 8., as an extension. Place the loose guardrail 12 onto the rung underneath, for use as a lever to open the locking clip of the snap-on claw (see detail).

7. BALLASTING

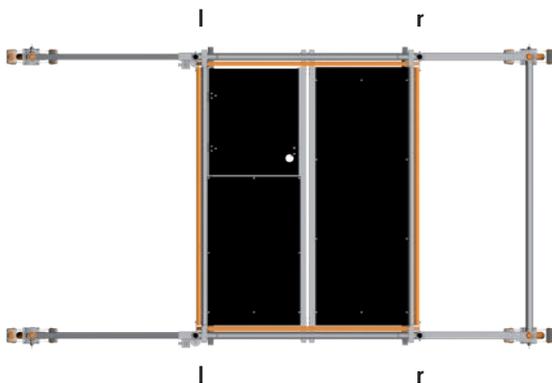
Attachment of ballast weights

Assembly central:

Assembly directly on wheels

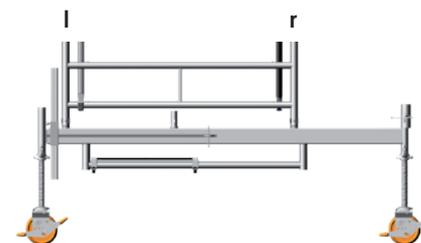
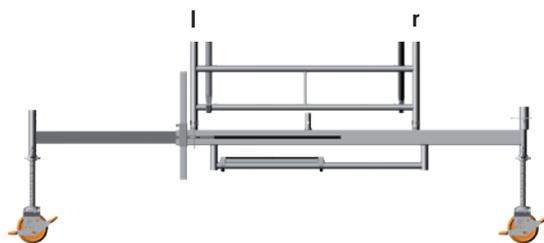
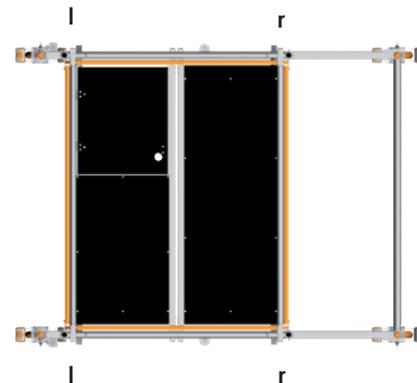


Assembly with 1323.320



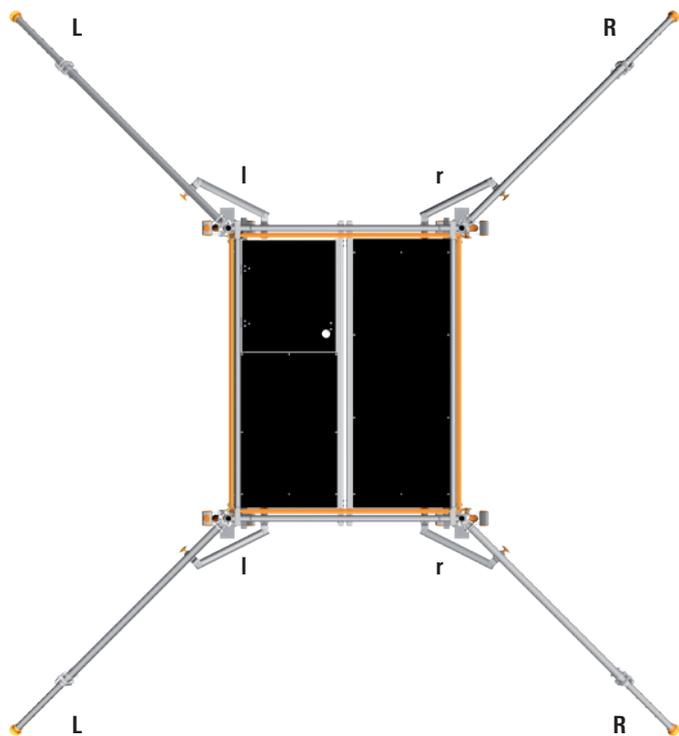
Assembly off-centre:

Assembly with 1323.320



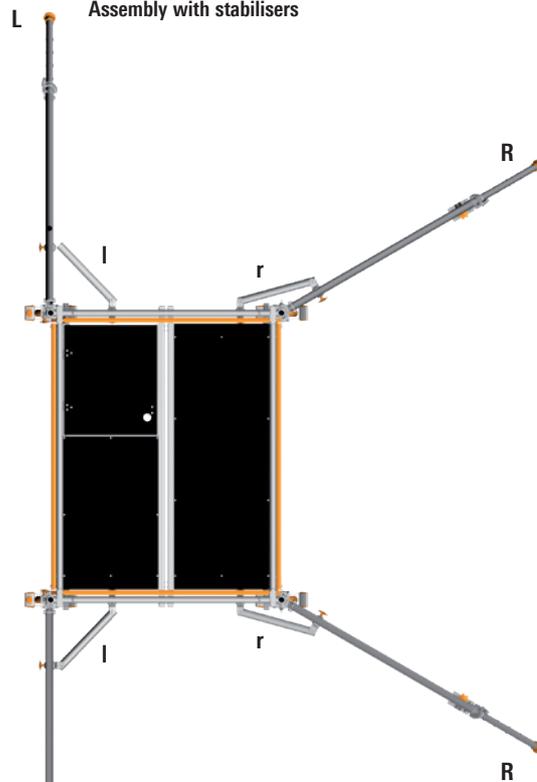
Assembly central:

Assembly with stabilisers



Assembly off-centre:

Assembly with stabilisers



Example for assembly of model 1405004

Assembly indoors in central position

Ballast: see page 10



Tower model	1405004
Working height [m]	6.20
Tower height [m]	5.43
Platform height [m]	4.20
Weight [kg] (without ballast)	224.0
Ballasting	
Indoors	
Assembly central	l4 r4
Assembly off-centre	X
Assembly off-centre with wall bracing	l4 r0
Outdoors	
Assembly central	l7 r7
Assembly off-centre	X
Assembly off-centre with wall bracing	l10 r4

8. WALL BRACING (under compression) ANCHORING (under compression and tension)



For work performed on a load-bearing wall, reduce the ballasting in accordance with the **Ballasting table** (see page 10). **In this case, wall supports or anchoring must be installed on both sides of the tower.**

Use the Uni distance tube 18 and fix it to the ladder frame 25/26 using two couplers 19 in each case.

Position the rubber mount on the wall (see detail A) to provide bracing. Use the Uni distance tube, rotated by 180°, for anchoring and fit it into an eyebolt (see detail B) which was attached to the wall previously. Install the mobile beams such that they project from the side facing away from the wall.

Attach the wall supports / anchoring at the height of the top working platform or at most 1 m below that.



Detail A



Detail B

9. PARTS LIST

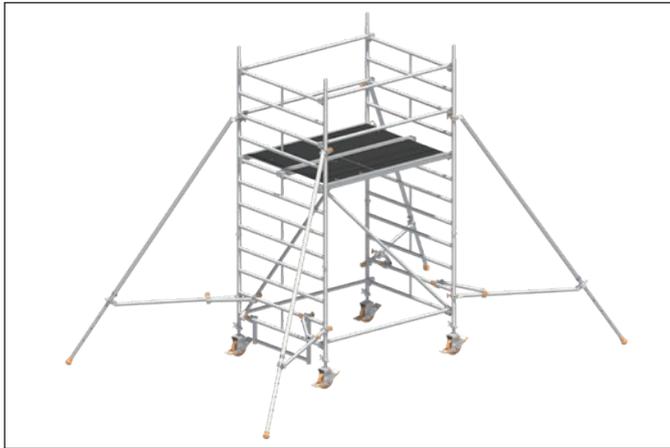
Tower model	Reference No.	1405001	1405002	1405003	1405004	1405005	1405006	1405007	1405008
Guardrail 1.80 m	1205.180	0	6	10	10	14	12	17	16
Double guardrail 1.80 m	1206.180	2	0	0	0	0	0	0	0
Diagonal brace 2.50 m	1208.180	0	2	2	4	4	6	6	8
Diagonal brace 1.95 m	1208.195	0	0	2	0	2	0	2	0
Basic tube 1.80 m	1211.180	0	0	0	0	0	1	1	1
End toe board 1.44 m	1438.144	2	2	2	2	2	2	2	2
Toe board 1.80 m with claw	1439.180	2	2	2	2	2	2	2	2
Deck 1.80 m	1241.180	1	2	2	3	3	4	4	5
Access deck 1.80 m	1242.180	1	1	2	2	3	3	4	4
Spring clip 11 mm	1250.000	0	4	4	8	8	16	16	20
Wheel 700–17 kN	1359.200	4	4	4	4	4	4	4	4
Ladder frame 150/4–1.00 m	1299.004	0	2	0	2	0	2	0	2
Ladder frame 150/8–2.00 m	1299.008	2	2	4	4	6	6	8	8
Mobile beam with bar, adjustable	1323.320	0	0	0	0	0	2	2	2
Access ledger 0.90 m	1344.003	0	2	1	2	1	0	0	0
Uni assembly hook	1300.010	0	1	1	1	1	1	1	1
Ballast	1249.000	For the number of ballasting weights, see the ballasting table, page 10–11							

Assembly variants with stabiliser, extendable: 1405022 – 1405028

Tower model	Reference No.	1405022	1405023	1405024	1405025	1405026	1405027	1405028	
Guardrail 1.80 m	1205.180	6	10	10	14	14	18	18	
Diagonal brace 2.50 m	1208.180	2	2	4	4	6	6	8	
Diagonal brace 1.95 m	1208.195	0	2	0	2	0	2	0	
End toe board 1.44 m	1438.144	2	2	2	2	2	2	2	
Toe board 1.80 m with claw	1439.180	2	2	2	2	2	2	2	
Deck 1.80 m	1241.180	1	2	2	3	3	4	4	
Access deck 1.80 m	1242.180	1	2	2	3	3	4	4	
Aluminium stabiliser, extendable	1248.260	4	4	4	4	4	4	4	
Rotation lock	1248.261	4	4	4	4	4	4	4	
Spring clip	1250.000	4	4	8	8	12	12	16	
Ladder frame 150/4–1.00	1299.004	2	0	2	0	2	0	2	
Ladder frame 150/8–2.00	1299.008	2	4	4	6	6	8	8	
Uni assembly hook	1300.010	1	1	1	1	1	1	1	
Wheel 700–7 kN	1359.200	4	4	4	4	4	4	4	
Access ledger 0.75 m	1344.003	1	1	1	1	1	1	1	
Ballast	1249.000	For the number of ballasting weights, see the ballasting table, page 10–11							

10. STABILISER ATTACHMENT

Before assembly, please note pages 12 – 16, “Basic assembly for rolling tower models without mobile beams”. With this assembly form, the fixed and adjustable mobile beams are dispensed with. They are replaced by extendable stabilisers or 5-metre stabilisers.



Attach a stabiliser 31 to each stile of the ladder frame 25/26 as follows.

Position the upper half-coupler of the stabiliser 31 at the appropriate height on the ladder frame 25/26, and before finally tightening the handwheels position the transverse tube by means of the half-coupler, also at the appropriate height on the ladder frame 25/26. After alignment of the stabilisers in the correct position (against wall or free-standing) and ensuring a firm stand on the ground, tighten the half-couplers using the handwheels.

It must be ensured that the spring clips safely engage in the telescoping parts of the extendable stabiliser.

Set the alignment of the stabilisers as follows:

Free-standing assembly:

in each case about 60° to the tower longitudinal side (Fig. left).

Assembly against a wall

On the wall side about 90° to the tower end face

Side facing away from the wall about 60° to the tower longitudinal side (Fig. right).

The specified angles can be checked after attachment of the stabilisers on the basis of the length dimensions "Spacing L".

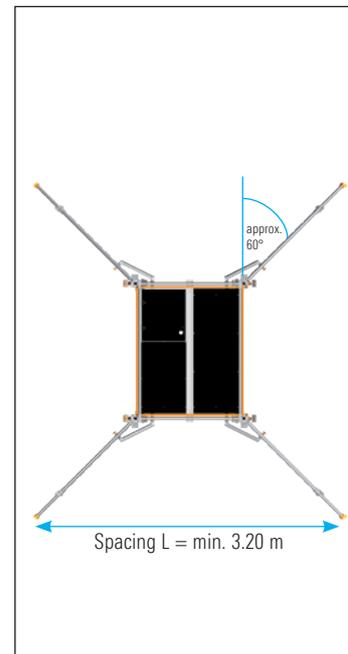
To ensure that the position of the stabilisers cannot change, for example due to inadvertent rotation, attach the tower rotation lock 32 to the stabiliser 31.

Position the tower rotation lock between the ladder frame and the stabiliser 31 such that one half-coupler is fastened to the transverse tube of the stabiliser and the second half-coupler to the ladder frame rung.

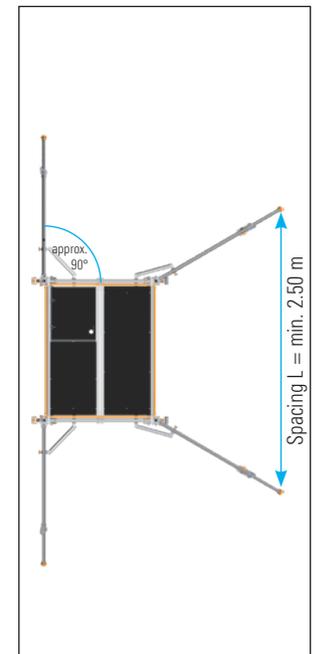
After positioning, tighten the half-couplers using the handwheels. When moving the mobile working platform, do not lift the stabiliser more than 2 cm off the ground.

Correct ballasting of the individual models is specified in the table for ballasting (see pages 10 / 11). For work performed on a load-bearing wall, wall bracing can be fitted on both sides of the tower, allowing a reduction of the ballasting in accordance with the table (see pages 10 – 11).

Free-standing assembly



Assembly against a wall



11. COMPONENTS OF THE SYSTEM

1



1359.200 Wheel 700

Plastic wheel, Ø 200 mm. With base plate, adjustment range 0.30 – 0.60 m, spindle nut with lock, wheel with twin brake lever and load centring when braked. Permissible load capacity: 7.0 kN (≈ 700 kg).

Functioning predecessor article 1259.200 / 1259.201 (not shown) can remain in use.

2



1358.200 Wheel 700 with polyurethane tyre

Plastic wheel, Ø 200 mm. With base plate, adjustment range 0.30 – 0.60 m, spindle nut with lock, wheel with twin brake lever and load centring when braked. Permissible load capacity: 7.0 kN (≈ 700 kg).

Functioning predecessor article 1268.200 / 1259.202 (not shown) can remain in use.

3



1260.201 Wheel 1000

Plastic wheel, Ø 200 mm, polyamide. With base plate, adjustment range 0.30 – 0.60 m, spindle nut with lock, wheel with twin brake lever and load centring when braked. Permissible load capacity: 10 kN (≈ 1,000 kg).

Functioning predecessor article 1260.200 (not shown) can remain in use.

4



1260.202 Wheel 1000 with electrically conductive polyurethane tyre

Plastic wheel, Ø 200 mm made from polyamide with tyre of electrically conductive polyurethane. With base plate, adjustment range 0.30 – 0.60 m, spindle nut with lock, wheel with twin brake lever and load centring when braked. Permissible load capacity 10 kN (≈ 1,000 kg).

Special wheel for sensitive floors, and thanks to electrical conductivity usable in explosion-proof or in ESD-risk areas, electrical leakage resistance as per DIN EN 12526 <math>< 10^4 \Omega</math>.

5



1300.150 Wheel D = 150 with base plate 250

Plastic wheel, Ø 150 mm, with base plate, adjustment range 0.2 – 0.35 m, spindle nut with lock, wheel with twin brake lever and load centring when braked. Permissible load capacity: 7 kN (≈ 700 kg).

6



1301.150 Wheel 400

Plastic wheel, Ø 150 mm, with single brake lever, permissible load capacity 4 kN (≈ 400 kg), weight 2.2 kg.

Functioning predecessor article 1308.150 (not shown) can remain in use.

8



1303.150 Wheel 400

Plastic wheel with Vulkollan tyre, Ø 150 mm, permissible load 4 kN (≈ 400 kg). Special wheel for sensitive floor surfaces. Wheel and slewing ring can be locked. weight 2.5 kg.

Functioning predecessor article 1309.150 (not shown) can remain in use.



8

1323.320 Mobile beam with deck support, 3.20 m, adjustable

Steel rectangular tube, hot-dip-galvanized. For base widening in mobile working platforms. Width max. 3.20 m, min. 2.30 m, weight 42.5 kg.



9

1338.320 Mobile beam with 2 spigots, 3.20 m, adjustable

Steel rectangular tube, hot-dip-galvanized. For base widening in mobile working platforms. Width max. 3.20 m, min. 2.30 m, weight 42.6 kg.



10

1211.180 Basic tube 1.80 m

steel tube, hot-dip-galvanized. Length 1.80 m, weight 7.7 kg.



11

1324.180 Basic strut 1.80 m

with 2 half-couplers, steel tube hot-dip-galvanized, length 1.80 m, weight 6.2 kg.



12

1205.180 Guardrail 1.80 m

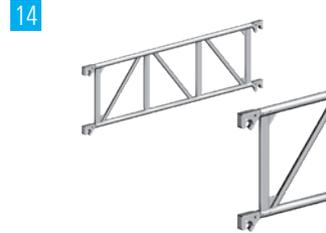
aluminium. Length 1.80 m, weight 2.3 kg.



13

1206.180 Double guardrail 1.80 m

aluminium. Length 1.80 m, height 0.50 m, weight 5.8 kg.



14

1207.180 Beam 1.80 m

aluminium. Support elements in tower construction kit or double side protection. Length 1.80 m, height 0.50 m, weight 7.2 kg.



15

1347.250 Deck diagonal brace 2.50 m

weight 4.2 kg.



16

1208.180 Diagonal brace 2.50 m

aluminium. Length 2.50 m, weight 3.3 kg.



17

1208.195 Diagonal brace 1.95 m

aluminium. Length 1.95 m, weight 2.8 kg.



18

1275.180 Uni distance tube

Aluminium tube with hook and rubber mount. Ø 48.3 mm, Length 1.80 m, weight 2.1 kg.



19

4700.019 / 4700.022**Double coupler**

19 or 22 mm AF, weight 1.3 kg.



20

1438.144 End toe board 1.44 m

wood. Length 1.42 m, height 0.15 m, weight 2.9 kg.

21



1439.180 Toe board 1.80 m with claw

wood.
Length 1.80 m, height 0.15 m,
weight 4.2 kg.

22



1241.180 Deck 1.80 m

Aluminium frame with plywood deck (BFU 100G) with phenolic resin coating.
Length 1.80 m, width 0.68 m,
weight 13.3 kg.

23



1242.180 Access deck 1.80 m

Aluminium frame, with deck and hatch of plywood (BFU 100G) with phenolic resin coating. Length 1.80 m, Width 0.68 m, weight 15.0 kg.

24



1250.000 Spring clip,

steel.
weight 0.1 kg.

25



1299.008 Ladder frame 150/8

Aluminium.
Rungs with non-slip grooving.
Height 2.00 m,
Width 1.45 m, weight 13.5 kg.

26



1299.004 Ladder frame 150/4

Aluminium.
Rungs with non-slip grooving.
Height 1.00 m,
Width 1.45 m, weight 7.0 kg.

27



1344.003 Access ledger 0.9,

aluminium.
Length 0.90 m, weight 3.3 kg.

28



1300.010 Uni assembly hooks,

polyethylene,
set of 2.
weight 1.2 kg.

29



1249.000 Ballast (10 kg)

made from steel, hot-dip-galvanised with half-coupler.

30



1337.000 Spigot, adjustable

for twin towers, steel,
hot-dip-galvanised.
For use with mobile beam
No. 1338.320
weight 2.1 kg.

31



1248.260 Stabiliser, extendable,

aluminium.
Length 2.60 m,
weight 8.5 kg.

12. CERTIFICATE

In view of possible expiry dates and/or updating, you can obtain the appropriate certificate on request using the contact details stated overleaf.







More Possibilities. The Scaffolding System.

Wilhelm Layher GmbH & Co KG
Scaffolding Grandstands ladders

Ochsenbacher Strasse 56
74363 Gueglingen-Eibensbach
Germany

Post box 40
74361 Gueglingen-Eibensbach
Germany
Phone +49 (0)71 35 70-0
Fax +49 (0)71 35 70-2 65
E-Mail info@layher.com
www.layher.com