Layher SuperKlaxTower

Mobile access and working towers
in accordance with: HD 1004;
DIN 4422, Part 1 (Version 8/92)

Working platform 2.8 x 2.8 m
and 2.8 x 1.95 m

Max. working height:
in closed rooms 13.95 m, outdoors 10.0 m

Permissible load 1.5 kN/m²
on max. one working level:
scaffold group 2 acc. to HD 1004;
DIN 4422, Part 1 (Version 8/92)

Aluminium Rolling Towers

Instructions for Assembly and Use

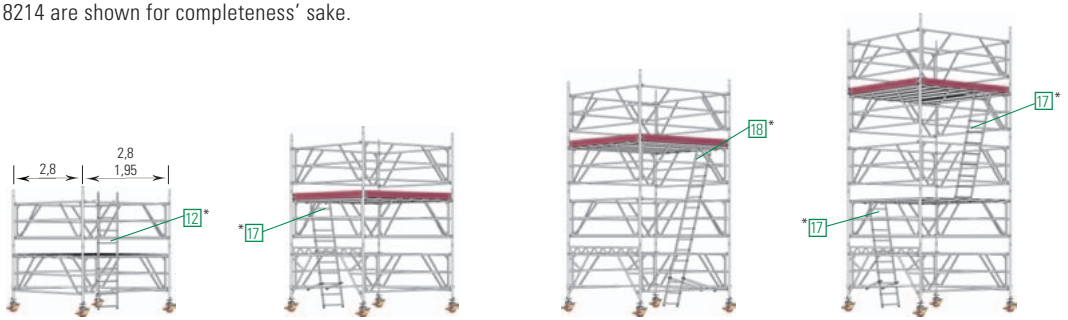
Layher®

More Possibilities. The Scaffolding System.

Tower Types

For outdoor use observe height limits.
Tower models 8211, 8212, 8213 and 8214 are shown for completeness' sake.

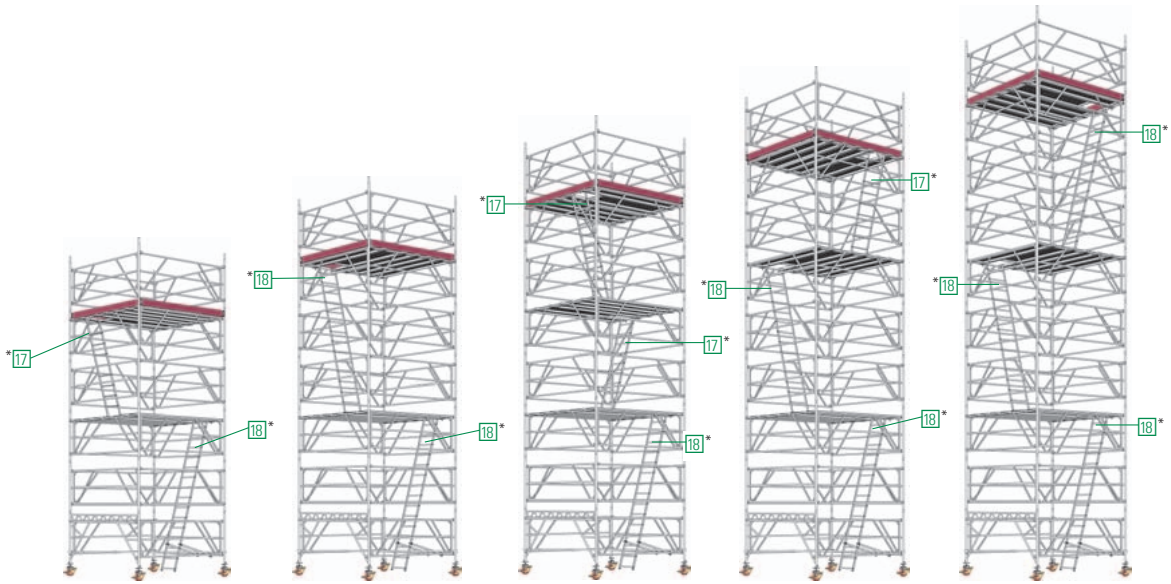
Tower Models
8201 – 8214



Tower Model	8201	8211	8202	8212	8203	8213	8204	8214
Deck size (m)	2.8 x 2.8	2.8 x 1.95	2.8 x 2.8	2.8 x 1.95	2.8 x 2.8	2.8 x 1.95	2.8 x 2.8	2.8 x 1.95
Working height (m)	3.65		4.95		6.25		7.55	
Scaffold height[1] (m)	3.26 (3.01)		4.54 (4.29)		5.82 (5.57)		7.09 (6.84)	
Platform height (m)	1.65		2.95		4.25		5.55	
Weight (kg) [without ballast]	249.2	209.6	332.7	285.7	390.4	339.0	544.0	457.4

[1] Values in brackets: minimum tower height incl. spigot. * mount the ladders and ladder supports according to page 6 (Components).

Tower Models
8205 – 8209



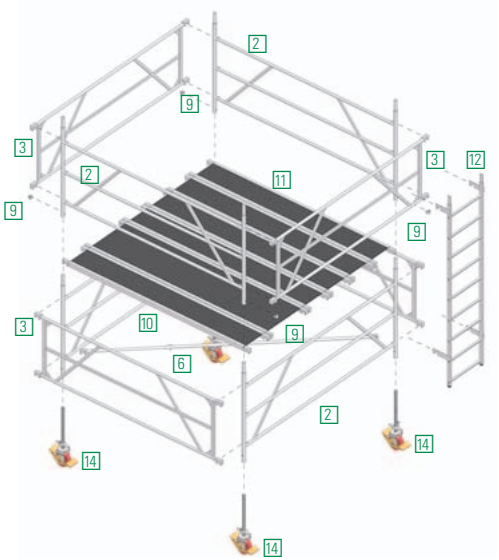
Tower Model	8205	8206	8207	8208	8209
Platform size (m)	2.8 x 2.8	2.8 x 2.8	2.8 x 2.8	2.8 x 2.8	2.8 x 2.8
Working height (m)	8.75	10.05	11.35	12.65	13.95
Scaffold height[1] (m)	8.37 (8.12)	9.65 (9.40)	10.93 (10.68)	12.21 (11.96)	13.48 (13.23)
Platform height (m)	6.75	8.05	9.35	10.65	11.95
Weight (kg) [without ballast]	601.8	658.5	813.1	869.8	926.5

[1] Values in brackets: minimum tower height incl. spigot. * mount the ladders and ladder supports according to page 6 (Components).

Assembly

1 Pay attention to the General Assembly and Usage Instructions on page 8. The examples shown of tower models 8207 – 8209 are designed for use indoors. According to the regulations in force since Jan. 1st, 1987, the permissible **maximum height outdoors is 8 m freestanding.**
Pay attention to the Material and Ballasting tables on page 7.

2 Assembly of Tower Model 8201 and 8211



The tower model 8201 has a platform size of 2,8 x 2.8 m and is built-up with plug-in frames 2.8 m and bracing elements 2.8 m.

The tower model 8211 has a platform size of 1.95 x 2.8 m and is assembled using the 1.95 m/2.8 m plug-in frame and 1.95 m/2.8 m braces (see page 2). The first two plug-in frames [2] are connected with two bracing elements [3]. The connection is done by clipping the snap-on claws onto the plug-in frames [2].

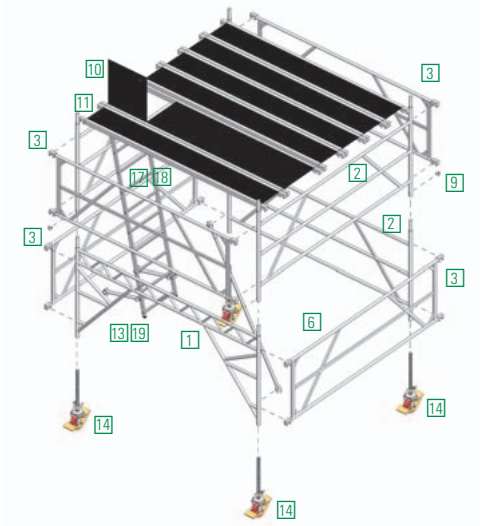
Then mount the castors. The castors [14] are inserted into the frames [2] and secured against falling out by fastening the wing screws on the spindle nuts. Clip the decks [11] and the access decks [10] onto the plug-in frames [2]. The horizontal gap between the decks must not exceed 25 mm. Level the tower using the threaded spindles. Continue the assembly with plug-in frames [2] and bracing elements [3].

The assembly is interchargeable, i.e. a plug-in frame [2] is placed on a bracing element [3] and a bracing element [3] is placed on a plug-in frame [2]. Secure the joints of the plug-in frame with spring clips [9].

When mounting push all bracing elements [3] outwards as far as possible.
A three-part side guard must be provided if required by the valid provisions applying for the work to be performed. Finally, attach the Klax-access ladder [12] to the plug-in frame [2] and the bracing elements [3]. In addition a horizontal brace [6] is fixed. Ballasting weights must be fitted in accordance with the ballasting table.

In order to remove the different parts, depress the locking clips of the snap-on claws. The red claws of the decks enable a single person to assemble or dismantle them easily; open them at one end and rest the base of the clips on the rung. Now open the opposite clips and remove the deck.

2.1 Basic assembly Tower Models 8202– 8214



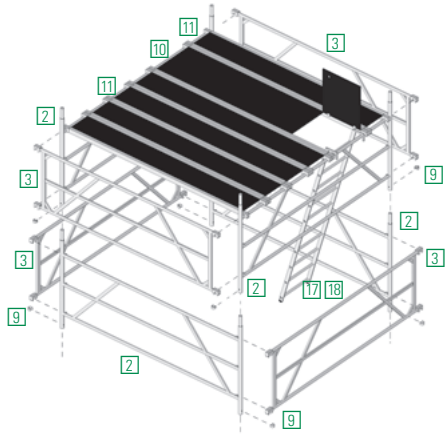
For tower models 8202 – 8214 access-frames [1] 1.95 m/2.8 m, plug-in frames [2] 1.95 m/2.8 m and bracing elements [3] 1.95 m/2.8 m are built in. These rolling towers differ in their platform size (see assembly examples on page 2). The first access frame [1] and plug-in frame [2] are connected with two bracing elements [3]. Do it by clipping the snap-on claws onto the plug-in frame [2] and the access frame [1].

The castors [14] are inserted into the plug-in frame [1] and the access frame [2] and secured against falling out by fastening the wing screws on the spindle nuts. Continue the assembly with plug-in frames [2] and bracing elements [3]. The assembly is interchargeable, i.e. a plug-in frame [2] is placed on a bracing element [3] and a bracing element [3] is placed on a plug-in frame [2].

Secure the joints of the plug-in frames with spring clips [9]. Clip the decks [11] and the access decks [10] onto a plug-in frame [2]. Take care that the horizontal gap between the decks does not exceed 25 mm .
When mounting push all bracing elements [3] outwards as far as possible. The adjustable horizontal brace [6] has to be built in so that it will be possible to reach the access ladder [17], [18]. Select the access ladder [17], [18] according to the examples on page 2.

Fix the ladder supports [13], [19] to the chord between 2nd and 3rd rung of access ladder. Fix the other ladder support side to the lowest rung of bracing element [3]. Level the tower using the threaded spindles. Ballasting weights must be fitted in accordance with the ballasting table.

3 Assembly of the intermediate platform

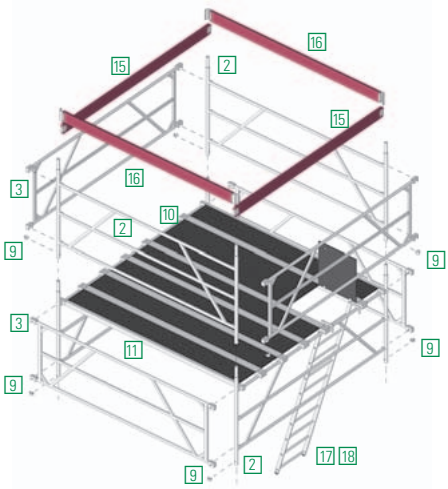


During assembly and dismantling, system decks or scaffold planks according to DIN 4420 (minimum 28 x 4.5 x 350 cm long) must be built in as auxiliary decks at maximum height intervals of 2.0 m. These auxiliary decks, providing a safe footing for assembly and dismantling, are removed after erection. Each platform must be completely boarded.

Continue the assembly with plug-in frames 2 and bracing elements 3, securing these by spring clips 9. If system specific intermediate platforms are built in, they have to be boarded completely with decks 11 and one access deck 10. Take care that the horizontal gap between the decks does not exceed 25 mm.

When mounting push all bracing elements 3 outwards as far as possible.
Mount the access ladder 17, 18 in accordance with the chosen tower type (see examples on page 2).

4 Assembly of the top working platform

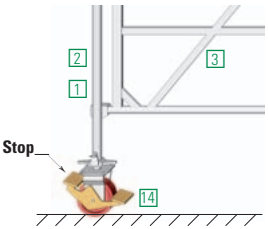


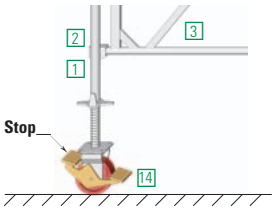
The top platform has to be completely boarded with decks 11 and one access deck 10. Take care that the horizontal gap between the decks does not exceed 25 mm.

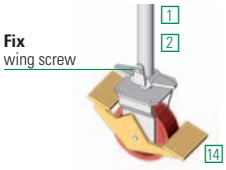
When mounting push all bracing elements 3 outwards as far as possible.

Fix the access ladder 17, 18 in accordance with the chosen tower type (see examples page 2). Insert the plug-in frames 2 and bracing elements 3 and secure them with spring clips 9. Continue placing the toe boards 15 + 16 on the decks and fit them into each other. They brace themselve mutually.

5 Operating the castors



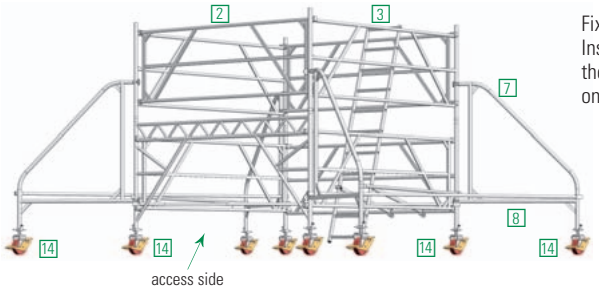




Maximum height adjustment
(spindle travel) at the base plate = 25 cm

During assembly and while working the castors 14 must be kept 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, the castors 14 are unlocked by pushing the other lever down.

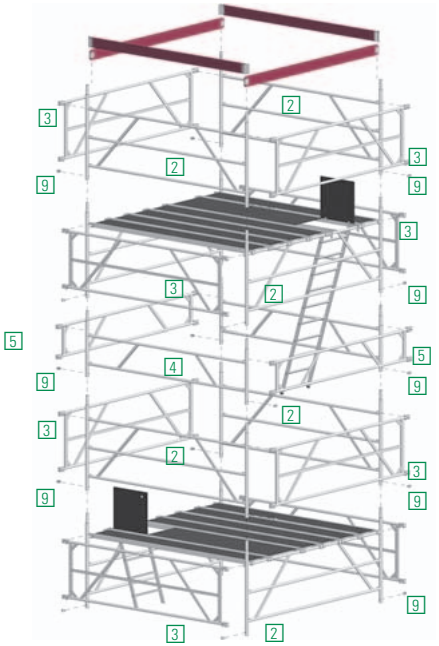
Outrigger assembly



Fix the outrigger 7 to the plug-in frame 2.
Insert the castors 14 into the outrigger 7 and secure them against falling out by fastening the wing screws on the spindle nuts.

Brace the outriggers 7 diagonally with 4 special ledgers 8 (see drawings ballasting fixing page 7).
Take care to keep the access free. Ballasting fixing according to the corresponding table (page 7).

Half plug-in frame



During assembly and dismantling, system decks or scaffold planks according to DIN 4420 (minimum 28 x 4.5 x 350 cm long) must be built in as auxiliary decks at maximum height intervals of 2.0 m. These auxiliary decks, providing a safe footing for assembly and dismantling, are removed after the erection. Each platform must be completely boarded.

Half bracing elements 5 and half plug-in frames 4 may be used for tower model 8203 and above in order to adjust the standing height.

Replace every second plug-in-frame group below top deck level with two half plug-in frames 4 and two half bracing elements 5.

Working platforms and intermediate platforms must not be fixed to half frames.

When mounting push all bracing 3 and half bracing elements 4 outwards as far as possible.

Secure all plug-in joints with spring clips 9.

Dismantling

During assembly and dismantling, system decks or scaffold planks according to DIN 4420 (minimum 28 x 4.5 x 350 cm long) must be built in as auxiliary decks at maximum height intervals of 2.0 m. These auxiliary decks, providing a safe footing for assembly and dismantling, are removed after the erection. Each platform must be completely boarded.

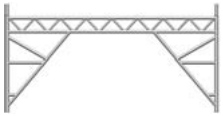
Dismantling is carried out in the reverse order of assembly.

Do not remove the corresponding plug-in frames 2 and bracing elements 3 before you have dismantled the parts situated above.

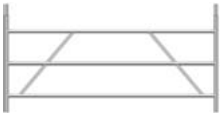
To remove parts open the snap-on claws by depressing the locking clips. The red claws of the decks enable a single person to assemble or dismantle them easily; open them at one end and rest the base of the opened clips on the rung. Now open the opposite clip and remove the deck.

Components

[1] **SuperKlax access frame**
1.95 m **1309.195**
2.8 m **1309.280**



[2] **SuperKlax plug-in frame**
1.95 m **1308.195**
2.8 m **1308.280**



[3] **SuperKlax bracing element**
1.95 m **1311.195**
2.8 m **1311.280**

[4] **SuperKlax half plug-in frame**
1.95 m **1310.195**
2.8 m **1310.280**

[5] **SuperKlax half bracing element**
1.95 m **1312.195**
2.8 m **1312.280**

[6] **Horizontal brace** **1318.000**
adjustable

[7] **Outrigger** **1216.000**

[8] **Ledger for outrigger** **1217.375**
3.75 m

[9] **Spring clip** **1250.000**

[10] **SuperKlax-access deck** **1242.280**
2.8 m

[11] **SuperKlax deck** **1241.280**
2.8 m

[12] **SuperKlax access ladder for tower types 8201/8211** **1315.009**

Ladder support

[13] for acces ladder [18], 15 rungs, 1.05 m **1313.105**
[19] for access ladder [17], 10 rungs, 0.55 m **1313.055**

[14] **Castor 200**
with spindle 7 kN and wing screw **1259.200**

[15] **SuperKlax-end toe board**
2.85 m **1238.285**
1.9 m **1238.190**

[16] **SuperKlax toe board with claw** **1239.279**
2.8 m

Access ladder

[17] Access ladder, 10 rungs **1314.010**
[18] Access ladder, 15 rungs **1314.015**

[20] **Ballast** 10 kg **1249.000**

Parts List

With your purchase you receive **General Instructions for Assembly and Usage.** Take them into account when assembling.
Pay attention to the instructions on ballasting indicated in **the General Instructions for Assembly and Usage.**

Tower Model	Ref.	8201	8211	8202	8212	8203	8213	8204	8214	8205	8206	8207	8208	8209
Access frame 1.95 m	1309.195	–	–	–	–	–	1	–	–	–	–	–	–	–
Access frame 2.8 m	1309.280	–	–	1	1	1	–	1	1	1	1	1	1	1
Plug-in frame 1.95 m	1308.195	–	2	–	2	–	3	–	4	–	–	–	–	–
Plug-in frame 2.8 m	1308.280	4	2	5	3	7	4	9	5	11	13	15	17	19
Bracing element 1.95 m	1311.195	–	2	–	4	–	4	–	6	–	–	–	–	–
Bracing element 2.8 m	1311.280	4	2	6	2	8	4	10	4	12	14	16	18	20
Deck 2.8 x 0.39 m	1241.280	5	3	5	3	5	3	10	6	10	10	15	15	15
Access deck 2.8 m	1242.280	1	1	1	1	1	1	2	2	2	2	3	3	3
Ladder support 0.55 m	1313.055	–	–	2	2	–	–	2	2	–	–	–	–	–
Ladder support 1.05 m	1313.105	–	–	–	–	2	2	–	–	2	2	2	2	2
Access ladder 10 rungs	1314.010	–	–	1	1	–	–	2	2	1	–	2	1	–
Access ladder 15 rungs	1314.015	–	–	–	–	1	1	–	–	1	2	1	2	3
Klax access ladder	1315.009	1	1	–	–	–	–	–	–	–	–	–	–	–
Toe board with claw 2.8 m	1239.279	–	–	2	2	2	2	2	2	2	2	2	2	2
End toe board 2.85 m	1238.285	–	–	2	–	2	–	2	–	2	2	2	2	2
End toe board 1.9 m	1238.190	–	–	–	2	–	2	–	2	–	–	–	–	–
Spring clip	1250.000	4	4	8	8	12	12	16	16	20	24	28	32	36
Horizontal brace, adjustable	1318.000	1	1	1	1	1	1	1	1	1	1	1	1	1
Castors 200 with spindle, 7 kN	1259.200	4	4	4	4	4	4	4	4	4	4	4	4	4
Ballast	1249.000	For the number of ballast weights see the Ballasting table.												

Ballasting

In order to ballast the tower use Layher ballast weights [20], Ref. 1249.000 (10 kg each). Couplers with hand wheel permit a simple, quick and secure fixing of the respective ballast required at the correct places. Only these ballast weights are to be used, liquid or granular ballast materials must not be used.
The ballast weights must be distributed evenly to all ballasting fixing points. The remainder, not divisible by 4, is distributed to the fixing points A.

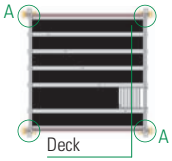
Tower Model	Ref.	8201	8211	8202	8212	8203	8213	8204	8214	8205	8206	8207	8208	8209
Ballast (ballast weights at additional cost):														
Indoor use		○	○	○	○	○	○	○	○	○	○	○	○	○
Outdoor use	Without outrigger	○	○	○	6	6	16	10	22	18	24	×	×	×
	One-side outrigger	○	○	○	6	6	16	○	10	6	16	×	×	×
	Two-sided outrigger	○	○	○	○	○	4	○	10	6	16	×	×	×

The figures shown indicated the number of ballast weights, 10 kg each. ○ **= no ballast required.** × **= outdoor use not permitted.**

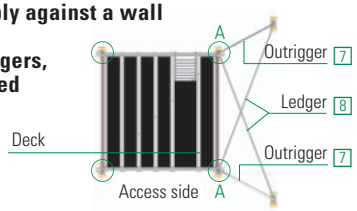
How to position the ballast weights
(Top view)

○ = fixing points for ballast weights
A = fixing points for the remainder of ballast weights not devisible by 4

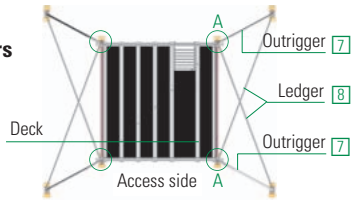
Standard assembly without outrigger



Assembly against a wall with 2 outriggers, one sided



Assembly with 4 outriggers



General Instructions on Assembly and Usage

Layher SuperKlaxTower

The rolling tower may be used for the scaffolding group and as additionally specified in the German operating safety regulations (BetrSichV). The rules of the German professional associations governing the building of rolling towers (BGR 172/April 2000) and of small scaffolding units (BGR 173/April 2000) must be complied with.
For mobile working platforms (rolling towers), DIN 4422 Part 1 (issue 8/92) applies. For small scaffolding units (platform height ≤ 2 m), BGR 173 applies.

The user of mobile working platforms 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 max. platform height is, in accordance with DIN 4422 Part 1:

– inside buildings 12.0 m
– outside buildings 8.0 m

The material and ballasting requirements on page 7 must be complied with; risk of accidents in the event of non-compliance. For greater heights, additional measures are necessary, obtainable from the manufacturer. Stability of the rolling tower must be assured.

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 personnel after special instruction. Only the scaffolding 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 (Section 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 you start assembly, examine all components in order to make sure they are in perfect condition. Only undamaged original components for Layher Mobile working-platform systems may be used. Tower parts such as snap-on claws and spigot must be cleaned of dirt after use. Tower parts must be protected against slipping and impacts during truck transportation. It must be ensured that the tower parts are stored where they are free from weather effects. Tower parts must be handled in such a way that they are not damaged.

5. During assembly and dismantling, system decks or scaffold planks according to DIN 4420 (minimum 28 x 4.5 x 350 cm long) must be built in as auxiliary decks at maximum height intervals of 2.0 m. These auxiliary decks, providing a safe footing for assembly and dismantling, are removed after the erection. Each platform must be completely boarded.
Due to structural reasons intermediate platforms with access decks must be built in at maximum intervals of 4.00 m. For safety reasons, it is advisable for two persons to erect the towers above a height of 4.0 m. To assemble the upper tower sections, the individual parts must be hoisted using transportation ropes.
Small quantities of tools and materials can be carried up in person, otherwise also hoisted by transportation ropes to the working level.

6. Secure the ladder frame joints with spring clips against unintended lift-off.

7. During assembly push guardrails and diagonal braces outwards as far as possible on the ladder rungs.

8. At **intermediate decks** used for climbing only, two guardrails are required. For small towers where the height of the deck exceeds 1.0 m, equipment must be provided that permits the attachement of side guards in accordance with DIN 4420-1.

9. Access to the working platform is only permitted on the inside **(exception Tower Type 8201)** using the ladder rungs provided.

10. It is not permitted to work on two or more decks at the same time. In the event of discrepancies consult the manufacturer.

11. Persons working on mobile towers should not lean or press against the guardrails, nor jump onto platforms.

12. It is not permitted to affix lifting or hoisting devices to mobile working platforms.

13. Move the tower manually and only on firm, level ground which is free from obstacles and sufficiently load bearing. Move the tower only longitudinally or diagonally. Do not exceed normal walking speed. Avoid any impact. After extending the base one side with wall supports in use, move parallel to the wall only.

14. No persons or loose objects must remain on the tower when moving it.

15. Before use and after moving the tower, lock the castors by pressing the brake lever.

16. Do not expose the tower to corrosive liquids or gases.

17. Mobile working platforms must not be bridged between each other, or a building **without special verification.** The same applies to special erections, e.g. suspende use etc.

18. At a wind force above 6 (Beaufort-Scale) and after finishing the working shift, move the tower when operating **outdoors** or in open buildings to a wind protected area or secure it by other approviate measures against toppling over. (Wind speeds above 6 on the Beaufort scale can be recognised by noticeable difficulty when walking.)
Avoid horizontal and vertical loads that can cause the mobile work platform to topple over, such as:
- horizontal loads, for example when working on adjacent structures,
- additional wind loads (due to tunnel effect from through-type buildings, unclad buildings and corners).

If possible, rolling towers used on the outside of buildings must be securely attached to the building or to another structure. It is recommended that rolling towers be anchored when they are left unattended.

19. The rolling tower must be set verhedly with the adjusting spindles.

20. Keep the access hatches shut, except when climbing the tower.

21. All couplers must be fastened with 50 Nm.

22. A rolling tower is not intended for use as a stairway tower providing access to other structures.

23. It is prohibited to jump on the decks.

24. A check must be made that all parts, auxiliary tools and safety equipment (ropes etc.) for erecting the rolling towers are available on the site.

25. When stipulated, mobile beams or outriggers and ballast must be installed.

26. It is prohibited to increase the height of the decking by using ladders, boxes or other objects.

27. It is permitted to construct bridges between the rolling tower and a building.

28. Rolling towers are not designed to be lifted or suspended. If their use as suspended scaffolding is planned, for example, consult the manufacturer.

All dimensions and weights are for guidance only.
Subject to technical modifications.

Sales exclusively on the basis of our currently valid general terms of business.

Layher®

More Possibilities. The Scaffolding System.

Wilhelm Layher GmbH & Co. KG
Scaffolding Grandstands Ladders

Post Box 40
D-74361 Güglingen-Eibensbach
Phone: **49-71 35-7 00
Fax: **49-71 35-7 03 72
E-mail: export@layher.com
http://www.layher.com

8107.237 Edition: 1-01-04.1