

LAYHER UNI STANDARD INSTRUCTIONS FOR ASSEMBLY AND USE



Edition 03.2020

Mobile working platforms
according to DIN EN 1004:2005-03
working platform 0.75 x 2.85 m

max. working height:
indoors 13.60 m
outdoors 9.60 m
permissible load 2.0 kN/m²
on max. one working level
(scaffolding group 3 according to
DIN EN 1004:2005-03)



CONTENTS

1. Introduction4

2. General instructions for assembly and use4

3. Measures for fall protection.....6

4. Tower models8

5. Assembly sequence..... 11

6. Dismantling sequence..... 16

7. Ascent via hook-in ladder..... 17

8. Parts list 18

9. Ballasting20

10. Stabiliser attachment24

11. Wall support and anchoring25

12. Assembly with brackets26

13. Components of the system27

14. Certificate.....31

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 these regulations.

Subject to local regulations, we reserve the right not to supply all of the products illustrated here.

Your Layher partner on the spot will be happy to provide advice and answers on Products, their use or specific assembly regulations.

1. INTRODUCTION

General

These instructions for assembly and use relate to the assembly, modification and dismantling of the Uni Standard mobile working platform made by Wilhelm Layher GmbH & Co KG, of Göglingen-Eibensbach, Germany. These instructions cannot cover all the possible applications. If you have any questions about specific applications, please contact your Layher partner.

Caution: The Layher Uni Standard 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 mobile working platform may be used for the specified scaffolding group 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:

1. The user must verify the suitability of the selected mobile working platform for the work to be performed (Section 4 of BetrSichV).
2. The maximum platform height for mobile working platforms is, in accordance with DIN EN 1004
 - inside buildings 12.00 m
 - outside buildings 8.00 m
3. 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 prohibition sign indicating "no entry" (BetrSichV Annex 1, Para. 3).

4. 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.
5. 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.
6. The ladder frame joints must always be secured using spring clips.
7. The mobile working platform must be levelled using the adjusting spindles.
8. Stability must assured during every phase of the assembly process. For attachment of wall bracing and ballast weights, see the appropriate section in these instructions for assembly and use.
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.
10. Upward access to the working platform is permitted only on the inside of the tower.
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. When work is being done on several levels, they must be completely fitted with 3-part side protection.
12. Personnel working on mobile working platforms must not push against the side protection.
- 13 Lifting gear must not be attached to or used on mobile working

14. Moving in of the adjustable mobile beams is only permitted in conformity with the instructions for assembly and use and with the ballasting specifications, see "Models" section.

15. Assembly and movement are only permitted on sufficiently firm ground, and only in a longitudinal or diagonal direction. All impacts must be avoided. When the base is extended on one side with wall bracing, movement is only permissible parallel to the wall. During movement, normal walking speed must not be exceeded.
16. No personnel and/or loose objects may be on the mobile working platform while it is being moved.
17. After movement, the castors must be locked by pressing down the brake lever.
18. The mobile working platforms must not be subjected to any aggressive fluids or gases.
19. Mobile working platforms must not be connected to one another by bridging unless the structural strength of that connection has been specifically verified. The same applies for all other special assemblies, e.g. suspended scaffolding etc. The provision of bridging between a mobile working platform and a building is also not permissible. **The manufacturer must be consulted with regard to stability verification.**
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, mobile working platforms used outside buildings must be securely fastened to the building itself or to another structure. It is recommended that mobile working platforms be anchored if they are left unattended.

The mobile working platform must be set to the perpendicular using the adjusting spindles or by inserting suitable materials underneath it. The maximum permitted tilt is 1 %.

21. Decks can also be fixed one rung higher or lower to obtain a different working height. Care must be taken that the specified side protection heights are complied with. Deck diagonal braces must be used in this assembly form.

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 decked surfaces is prohibited.
26. It must be checked that 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 can cause the mobile working platform to topple over should be avoided, for example:
 - pushing against the side protection
 - additional wind loads (tunnel effect of through-type buildings, unclad buildings and corners).
28. If stipulated, mobile beams or stabilisers or outriggers and ballast must be fitted.
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 FOR FALL PROTECTION

Fall protection during assembly, modification or dismantling of the rolling tower

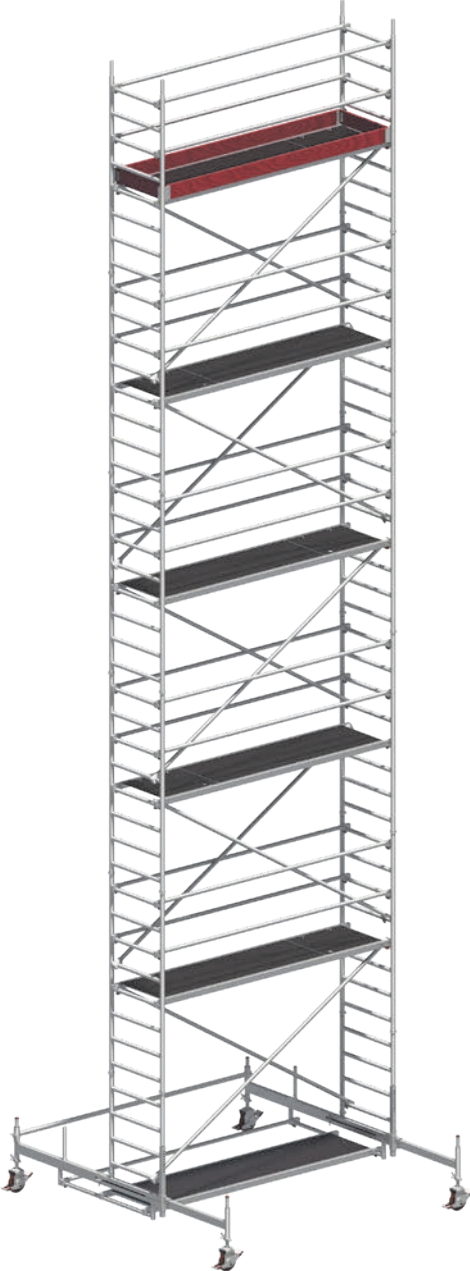
General

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 guardrails can already be fitted from the level underneath it, so that when the next-up platform is accessed there is already a simple side protection in place on all sides.

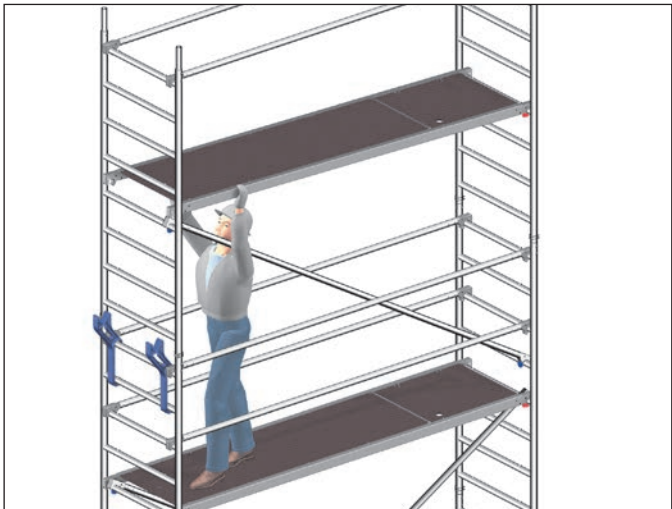


THE PRINCIPLE – SIMPLER. FASTER. SAFER.

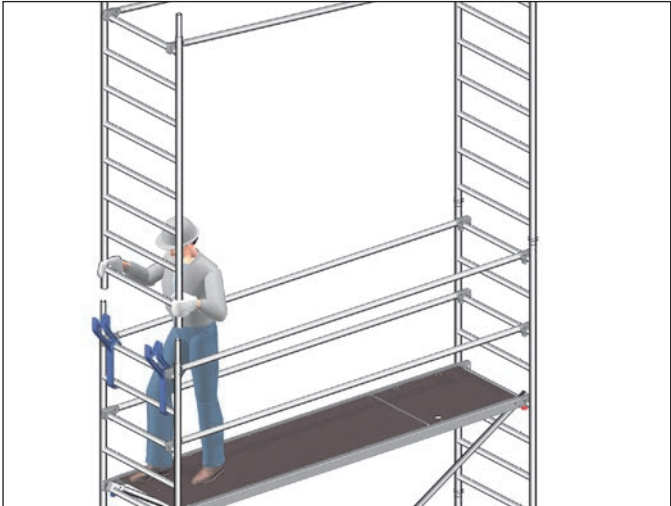
1. Attach the first ladder frame.
Attach the Uni assembly hooks and position the second ladder frame in order to fit the guardrails.



3. Insert diagonal braces and access deck.



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



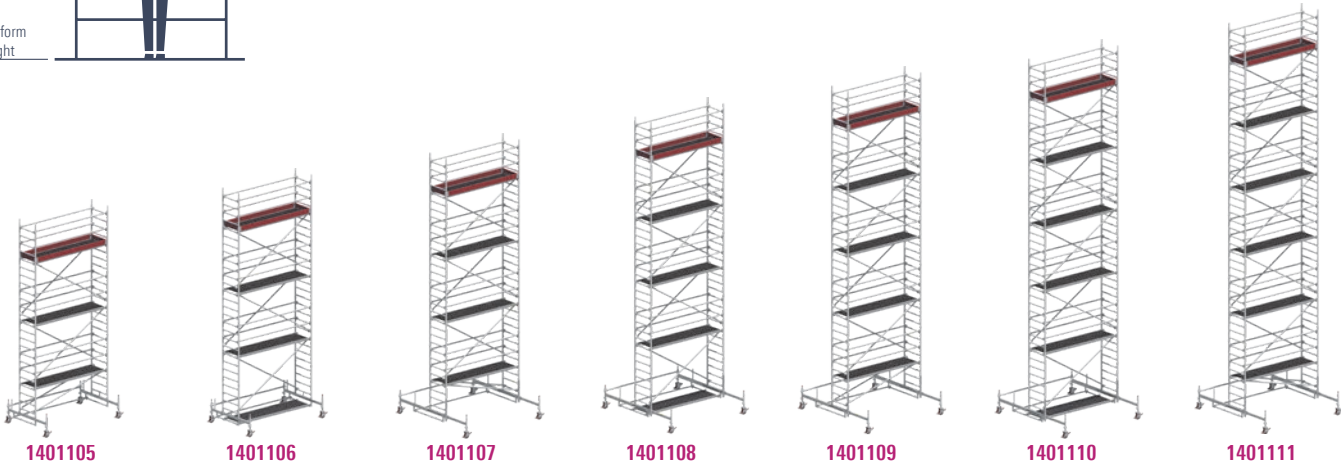
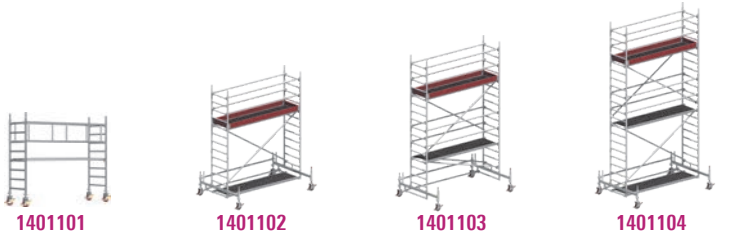
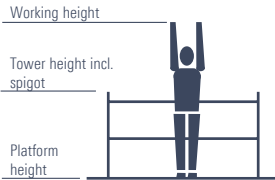
4. Climb up to the next level and install additional guardrails at 0.50 m.



4. TOWER MODELS

For **assembly outdoors**, comply with the height restriction!

Tower models
1401101 – 1401111



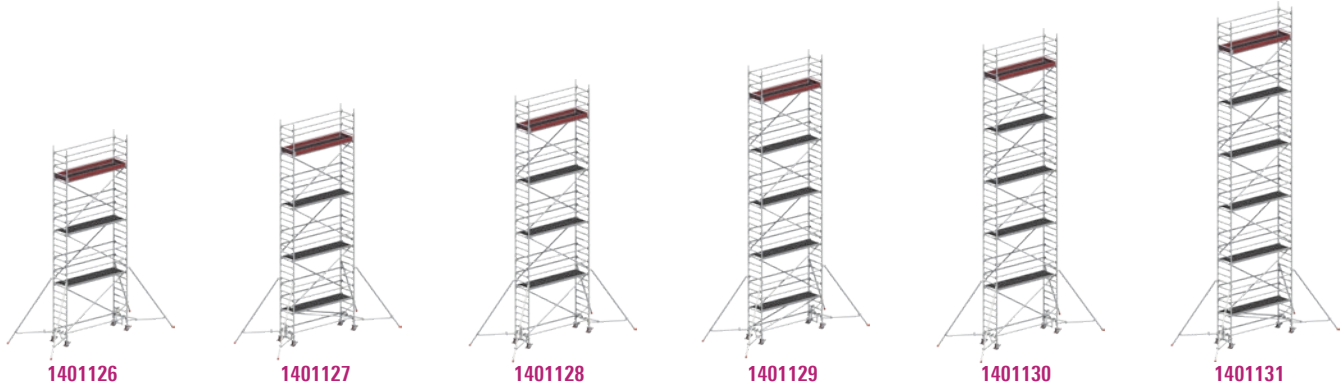
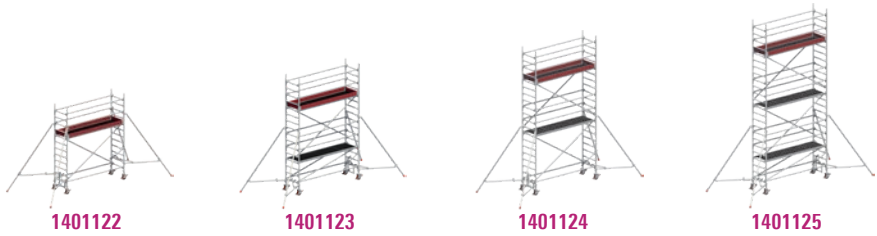
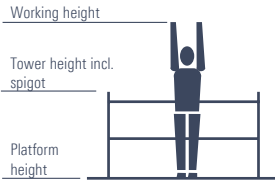
Tower model	1401101	1401102	1401103	1401104	1401105	1401106	1401107	1401108	1401109	1401110	1401111
Working height [m]	3.20	4.35	5.35	6.35	7.35	8.35	9.38	10.38	11.38	12.38	13.38
Tower height [m]	2.43	3.58	4.58	5.58	6.58	7.58	8.61	9.61	10.61	11.61	12.61
Platform height [m]	1.20	2.35	3.35	4.35	5.35	6.35	7.38	8.38	9.38	10.38	11.38
Weight [kg] (without ballast)	81.9	181.5	216.4	243.3	278.2	305.1	391.2	418.1	453.0	479.9	514.8
Ballasting											
Indoors											
Assembly central	I2 r2	0	0	0	0	0	0	0	0	0	0
Assembly off-centre	X	0	0	L0 R4	L0 R4	L0 R6	L0 R4	L0 R6	L0 R6	L0 R8	L0 R10
Assembly off-centre with wall bracing	X	0	0	0	0	0	0	0	0	0	0
Assembly central with 1 bracket	X	0	0	L0 R2	L0 R4	L0 R6	0	0	0	0	0
Assembly central with 2 brackets	X	0	0	0	0	0	0	0	0	0	0
Outdoors											
Assembly central	I2 r2	0	I1 r1	I5 r5	I9 r9	I15 r15	I2 r2	X	X	X	X
Assembly off-centre	X	L0 R2	L0 R6	L0 R10	L4 R16	L10 R22	L0 R18	X	X	X	X
Assembly off-centre with wall bracing	X	0	0	0	L4 R0	L10 R0	0	X	X	X	X
Assembly central with 1 bracket	X	L0 R4	L0 R8	L2 R12	L6 R16	L12 R22	X	X	X	X	X
Assembly central with 2 brackets	X	I2 r2	I5 r5	I8 r8	X	X	X	X	X	X	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 – 23)
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
L6, R16 → Fasten 6 ballast weights of 10 kg each to the mobile beam on its left-hand side, and 16 ballast weights of 10 kg each on its right-hand side
r and R relate 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 9, Ballasting, on pages 20 – 23)

TOWER MODELS WITH STABILISERS, EXTENDABLE:

For **assembly outdoors**, comply with the height restriction!

Tower models
1401124 – 1401131



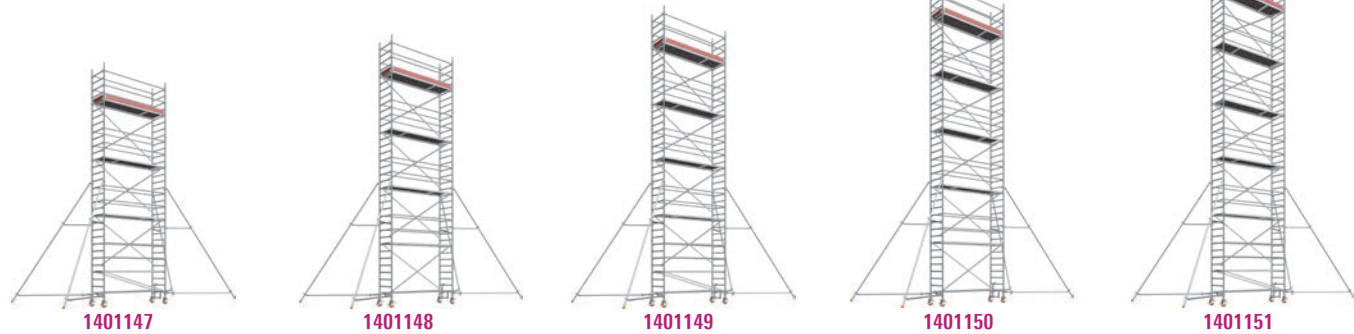
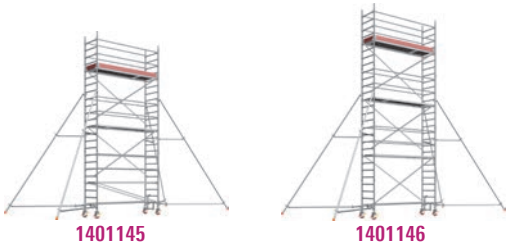
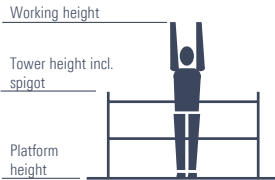
Tower model	1401122	1401123	1401124	1401125	1401126	1401127	1401128	1401129	1401130	1401131
Working height [m]	4.20	5.20	6.20	7.20	8.20	9.20	10.20	11.20	12.20	13.20
Tower height [m]	3.43	4.43	5.43	6.43	7.43	8.43	9.43	10.43	11.43	12.43
Platform height [m]	2.20	3.20	4.20	5.20	6.20	7.20	8.20	9.20	10.20	11.20
Weight [kg] (without ballast)	170.3	221.6	232.2	283.5	294.0	345.3	355.8	407.1	417.6	468.9
Ballasting										
Indoors										
Assembly central	0	0	0	0	0	0	0	0	0	0
Assembly off-centre	L0 R2	L0 R4	L0 R6	L0 R8	L0 R12	L0 R12	L0 R16	L0 R18	L0 R20	L0 R22
Assembly off-centre with wall bracing	0	0	0	0	0	0	0	0	0	0
Outdoors										
Assembly central	0	0	0	0	0	0	X	X	X	X
Assembly off-centre	L0 R8	L0 R10	L0 R16	L0 R20	L0 R28	L0 R34	X	X	X	X
Assembly off-centre with wall bracing	0	0	0	0	0	0	X	X	X	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 – 23)
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
L6, R16 → Fasten 6 ballast weights of 10 kg each to the mobile beam on its left-hand side, and 16 ballast weights of 10 kg each on its right-hand side
r and R relate 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 9, Ballasting, on pages 20 – 23)

TOWER MODELS WITH STABILISERS, 5 M

For assembly outdoors, comply with the height restriction!

Tower models
1401145 – 1401151



Tower model	1401145	1401146	1401147	1401148	1401149	1401150	1401151
Working height [m]	7.20	8.20	9.20	10.20	11.20	12.20	13.20
Tower height [m]	6.43	7.43	8.43	9.43	10.43	11.43	12.43
Platform height [m]	5.20	6.20	7.20	8.20	9.20	10.20	11.20
Weight [kg] (without ballast)	309.1	319.6	370.9	381.4	432.7	443.2	494.5
Ballasting							
Indoors							
Assembly central	0	0	0	0	0	0	0
Assembly off-centre	LO R6	LO R8	LO R8	LO R10	LO R12	LO R14	LO R14
Assembly off-centre with wall bracing	0	0	0	0	0	0	0
Outdoors							
Assembly central	0	0	0	X	X	X	X
Assembly off-centre	LO R16	LO R20	X	X	X	X	X
Assembly off-centre with wall bracing	0	0	0	X	X	X	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 – 23)
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
L6, R16 → Fasten 6 ballast weights of 10 kg each to the mobile beam on its left-hand side, and 16 ballast weights of 10 kg each on its right-hand side
r and R relate 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 9, Ballasting, on pages 20 – 23)

5. ASSEMBLY SEQUENCE Safety structure P2

Observe the general directions for assembly and use on pages 4 – 5. 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 castors 1.

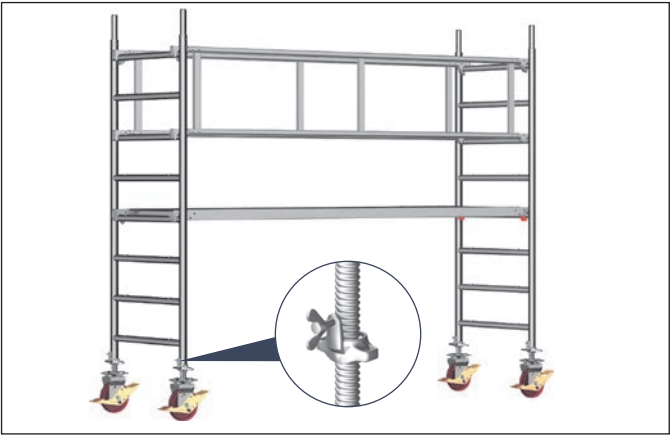
 The castors must be locked during assembly, modification or dismantling and while there is anybody on the tower.

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 18 or a tower beam 19 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.

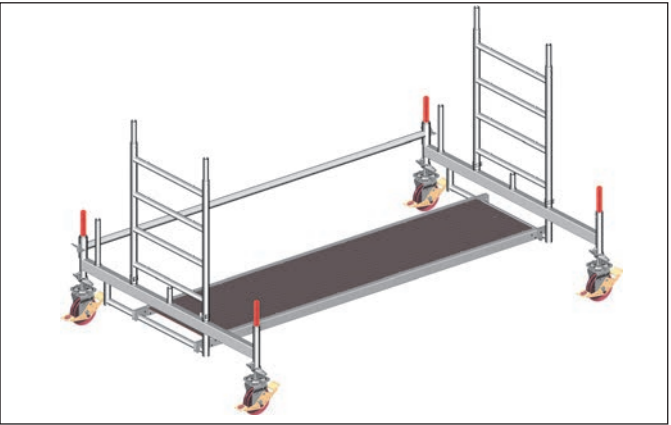
The item numbers for the components relate to the component list on pages 27 – 30.

Basic assembly
Tower model 1401101



1. Insert the castors 1 into the 2.00 m ladder frames 15 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the two ladder frames 15 to two double guardrails 18. Hook the access deck 25 into the fourth rung from the bottom of the 2.00 m ladder frames 15.

Basic assembly
Tower models 1401102, 1401104, 1401106, 1401108 and 1401110

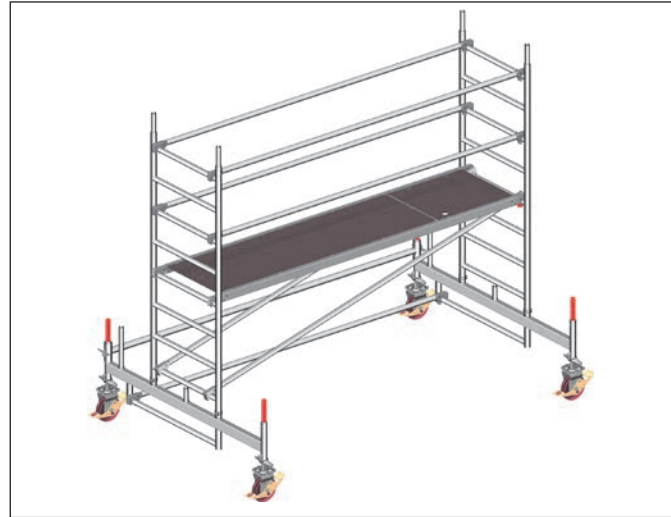


1. Insert the castors 1 into the mobile beams 7 / 8 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the mobile beams 7 / 8 with a basic tube 9, a base strut 10 and a deck 26.
3. Fit two 1.00 m ladder frames 14 onto the mobile beams and secure them using spring clips 16.

Further assembly is performed as per page 13, “Assembly of intermediate platforms”.

Basic assembly

Tower models 1401103, 1401105, 1401107, 1401109 and 1401111



1. Insert the castors 1 into the mobile beams 7 / 8 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the mobile beams 7 / 8 to one another with a basic tube 9, a base strut 10 and a guardrail 16 on the bar of the mobile beam.
3. Fit a 2.00 m ladder frame 15 onto the mobile beam 7 / 8 and secure it using spring clips 16. Hook two guardrails 17 over the top rung and connect them to a second 2.00 m ladder frame 15. Fit the second 2.00 m ladder frame 15 onto the mobile beam and secure it using spring clips 16. (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 21 and an access deck 25. **Ensure that the two diagonal braces are installed parallel to one another in the direction of the access hatch.**
5. Move up to the next level and fit additional guardrails 17 on the second rung above the platform area.

Further assembly is performed as per page 13, "Assembly of intermediate platforms".

Basic assembly

Tower models 1401124, 1401126, 1401128, 1401130, 1401146, 1401148 and 1401150



1. Insert the castors 1 into the 1.00 m ladder frames 14 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Fit further 2.00 m ladder frames 15. Connect the two rolling tower side parts at the top rungs and at the bottom rungs with two guardrails 17 in each case.
3. Fit two diagonal braces 20 crosswise. Then hook in an access deck 25.
4. To maintain the maximum distance from the first rung, fit an access ledger 11 on the ascent side of the rolling tower.
5. Move up to the next level and fit additional guardrails 17 on the second rung above the platform area.

Further assembly is performed as per page 13, "Assembly of intermediate platforms".

Basic assembly

Tower models 1401125, 1401127, 1401129, 1401131, 1401145, 1401147, 1401149 and 1401151



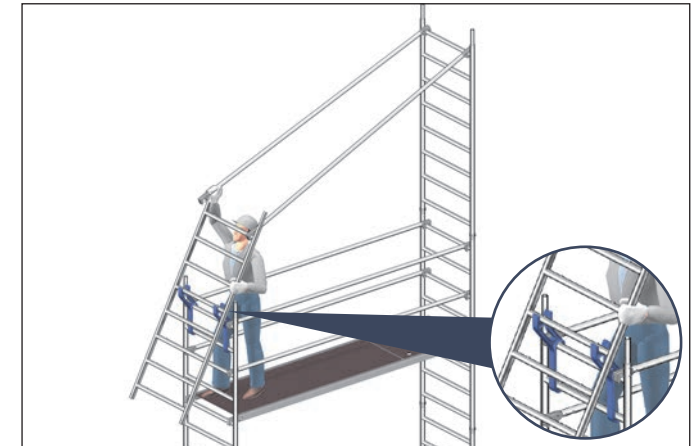
1. Insert the castors 1 into the 2.00 m ladder frames 15 and secure them against falling out by tightening the wing screws on the spindle nuts.
2. Connect the two rolling tower side parts at the top rungs and at the bottom rungs with two guardrails 17 in each case.
3. Fit two diagonal braces 21 and an access deck 25. Ensure that the two diagonal braces are installed parallel to one another in the direction of the access hatch.
4. To maintain the maximum distance from the first rung, fit an access ledger 11 on the ascent side of the rolling tower.
5. Move up to the next level and fit additional guardrails 17 on the second rung above the platform area. (Any double guardrails 18 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.)

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

Assembly of intermediate platforms

All tower models

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



1. Fit first 2.00 m ladder frame 15 and secure it using spring clips 16.
2. Attach the Uni assembly hooks 27 and position the second ladder frame 15 in order to fit the guardrails 17.



3. Swivel the ladder frame with guardrails upwards, fit it in place and secure it with spring clips 16.

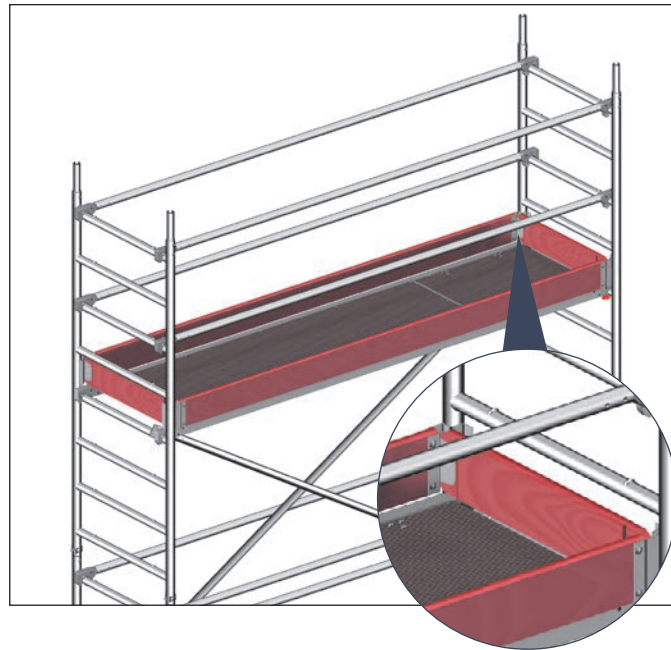


4. Insert diagonal braces 20 and access deck 25. Install the diagonal braces on both sides in tower-like (zig-zag) form.



5. Move up to the next level and fit additional guardrails 17 on the second rung above the platform area.

Completing the working platform All tower models

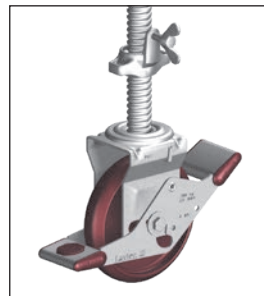


1. To complete the working platform, attach toe boards with claw 30 and end toe boards 31.



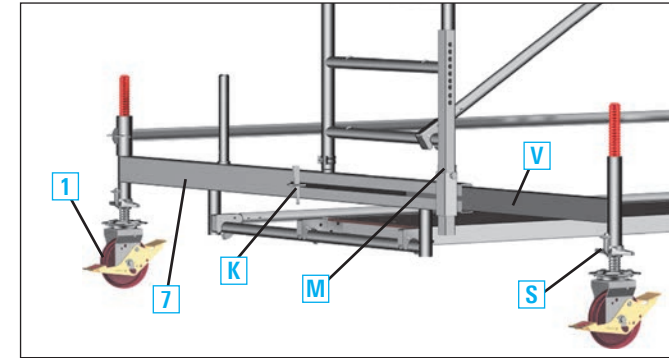
If an intermediate platform is also to be used for working, attach toe boards here too.

Operating the castors



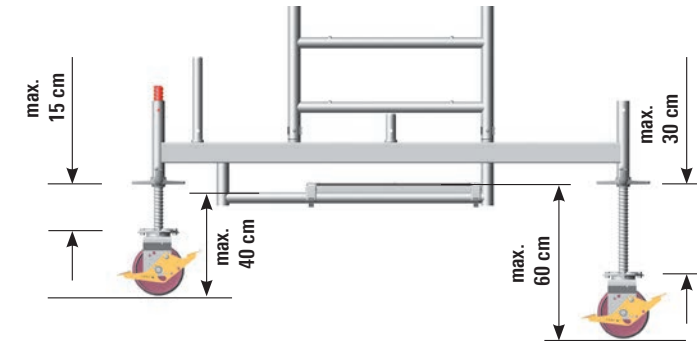
During assembly and while working, lock the castors by pressing down the brake lever labelled STOP. When the brake is locked, the lever labelled STOP must be in the down position. For movement, unlock the castors by pressing the opposite lever.

Adjusting the mobile beam

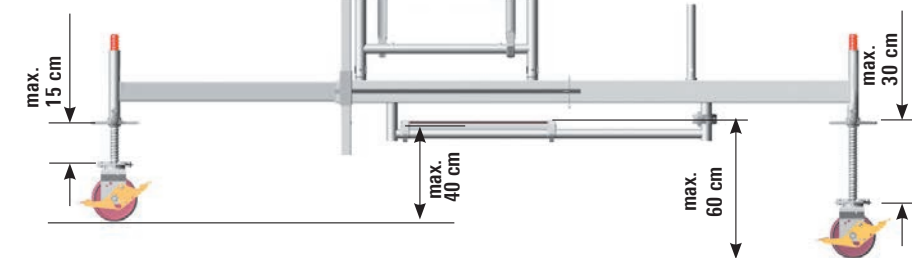


Maximum spindle adjustment of the various models

Assembly with 1323.180

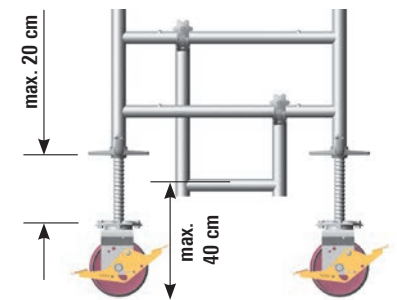


Assembly with 1323.320

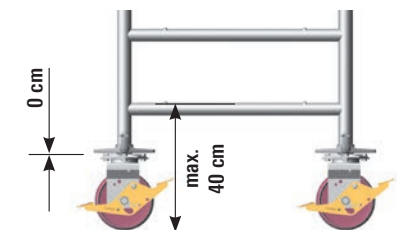


The adjustable mobile beam 7 permits working in a central position and at the wall without dismantling the tower. It can be pushed in and out in the assembled state. It must be ensured that before adjustment the ballast weights specified in the ballasting table are in every case attached at the right place (see pages 8 – 10). For adjustment in the assembled state, lower the central support M attached to the mobile beam 7 as far as possible and secure it. Take the load off the castors 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 castor 1 by extending the spindle, and then raise and secure the central support M.

Assembly directly on castors with access ledger



Assembly directly on castors



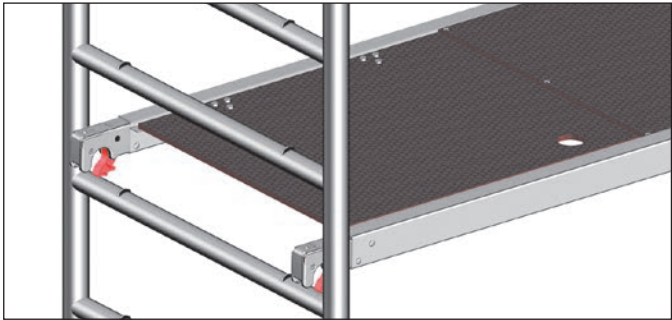
6. DISMANTLING SEQUENCE

Dismantling is in the reverse order to assembly (see pages 11 – 15).
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.



When an intermediate platform or working platform is dismantled, only remove the top guardrails from the level underneath. This is achieved with the aid of a guardrail installed at knee level.

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

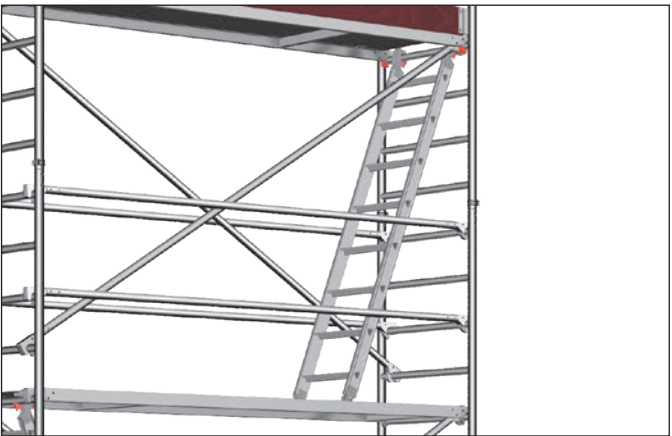


The **red/orange** locking clips of the decks permit, thanks to their geometry designed specially for the purpose, effortless installation and removal by a single person; first open them and place the deck with the opened clips on the rung, then open the opposite clips and lift out the deck.

7. ACCESS VIA SUSPENDED LADDER

For more convenient access, the models 1401102–1401111 / 1401131 / 1401145–1401151 can easily be equipped with the hook-in step ladder 34.
Simply snap the ladder into the eighth rung of the ladder frame (deck level) in the access hatch area using the snap-on claws, and rest it on the deck below.

When the models are equipped with mobile beams, ensure that at the level of the mobile beam the hook-in step ladder 34 is equipped with the ladder stabiliser set 37 intended for it, to maintain the tread angle of the steps.



8. PARTS LIST

Tower model	Reference No.	1401101	1401102	1401103	1401104	1401105	1401106	1401107	1401108	1401109	1401110	1401111
Guardrail 2.85 m	1205.285	0	4	9	8	13	12	17	16	21	20	25
Double guardrail 2.85 m	1206.285	2	0	0	0	0	0	0	0	0	0	0
Diagonal brace 3.35 m	1208.285	0	2	2	4	4	6	6	8	8	10	10
Diagonal brace 2.95 m	1208.295	0	0	2	0	2	0	2	0	2	0	2
Basic tube 2.85 m	1211.285	0	1	1	1	1	1	1	1	1	1	1
End toe board 0.75 m	1238.075	0	2	2	2	2	2	2	2	2	2	2
Toe board 2.85 m with claw	1239.285	0	2	2	2	2	2	2	2	2	2	2
Deck 2.85 m	1241.285	0	1	0	1	0	1	0	1	0	1	0
Access deck 2.85 m	1242.285	1	1	2	2	3	3	4	4	5	5	6
Spring clip 11 mm	1250.000	0	8	8	12	12	16	16	20	20	24	24
Castor 700—7 kN	1259.200	4	4	4	4	4	4	4	4	4	4	4
Ladder frame 75 / 4—1.00 m	1297.004	0	2	0	2	0	2	0	2	0	2	0
Ladder frame 75 / 8—2.00 m	1297.008	2	2	4	4	6	6	8	8	10	10	12
Mobile beam with bar	1323.180	0	2	2	2	2	2	0	0	0	0	0
Mobile beam with bar, adjustable	1323.320	0	0	0	0	0	0	2	2	2	2	2
Uni assembly hook	1300.001	0	1	1	1	1	1	1	1	1	1	1
Ballast	1249.000	For the number of ballasting weights, see the ballasting table, pages 8 — 10										

Assembly variants with stabiliser, extendable: 1401122–1401131; with stabiliser, 5 m: 1401145 – 1401151

Tower model	Ref. No.	1401122	1401123	1401124	1401125	1401126	1401127	1401128	1401129	1401130	1401131	1401145	1401146	1401147	1401148	1401149	1401150	1401151
Guardrail 2.85 m	1205.285	6	10	10	14	14	18	20	22	22	26	14	14	18	20	22	22	26
Diagonal brace 3.35 m	1208.285	2	2	4	4	6	6	8	8	10	10	4	6	6	8	8	10	10
Diagonal brace 2.95 m	1208.295	0	2	0	2	0	2	0	2	0	2	2	0	2	0	2	0	2
End toe board 0.75 m	1238.075	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Toe board 2.85 m with claw	1239.285	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Access deck 2.85 m	1242.285	1	2	2	3	3	4	4	5	5	6	3	3	4	4	5	5	6
Stabiliser, extendable	1248.260	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0
Tower rotation lock	1248.261	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Stabiliser 5 m	1248.500	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Spring clip 11 mm	1250.000	4	4	12	12	16	16	20	20	24	24	12	16	16	20	20	24	24
Castor 700—7 kN	1259.200	2	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ladder frame 75 / 4—1.00 m	1297.004	2	0	2	0	2	0	2	0	2	0	0	2	0	2	0	2	0
Ladder frame 75 / 8—2.00 m	1297.008	2	4	4	6	6	8	8	10	10	12	6	6	8	8	10	10	12
Access ledger	1344.002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Uni assembly hook	1300.001	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ballast	1249.000	For the number of ballasting weights, see the ballasting table, pages 8 — 10																

Extra requirements for special assembly with bracket deck surfaces

Tower model	Reference No.	1 bracket deck surface	2 bracket deck surfaces
End toe board 0.75 m	1238.075	2	4
Deck 2.85 m	1241.285	1	2
Spring clip	1250.000	4	8
Ladder frame 75 / 4	1297.004	2	4
Intermediate deck	1339.285	1	2
Aluminium bracket 0.75 m	1341.075	4	4



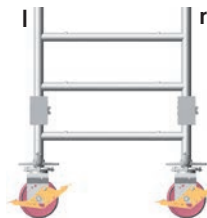
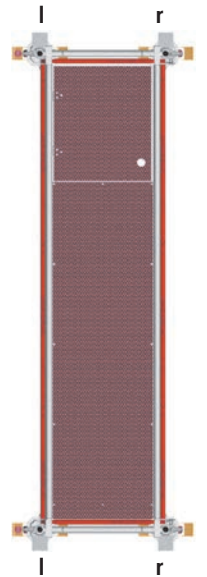
The tower models widened using bracket deck surfaces can be found on pages 8–10 (ballasting). When using brackets, the tower may only be loaded with 1.5 kN / m² (scaffolding group 2) at one working level only. A maximum of 2 bracket deck surfaces may be assembled. When bracket deck surfaces are fitted, the spindles must not be overextended. The respective working level must be equipped with complete side protection.

9. BALLASTING

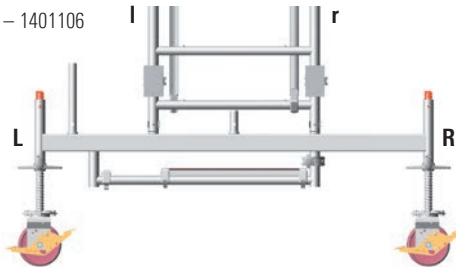
Attachment of ballast weights

Assembly central:

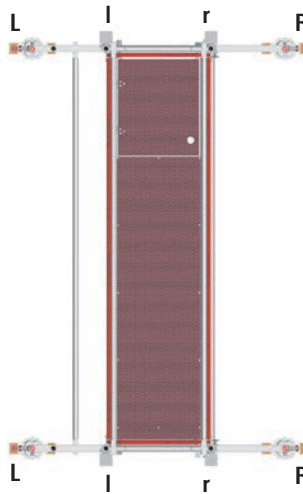
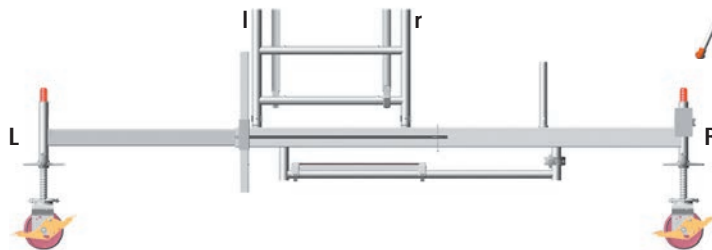
Model:
1401101



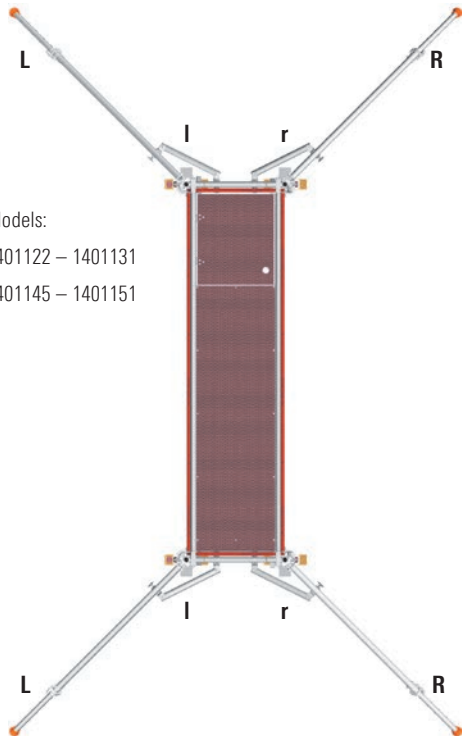
Models:
1401102 – 1401106



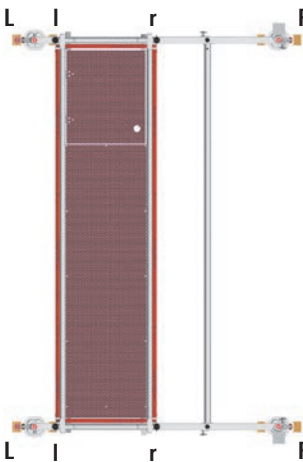
Models:
1401107 – 1401111



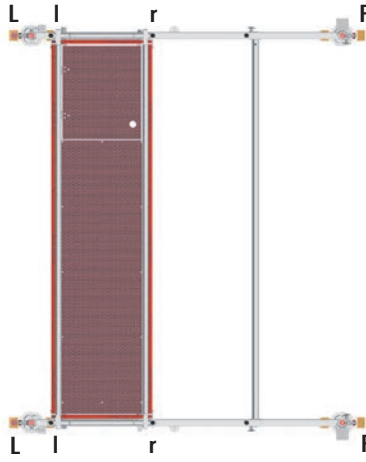
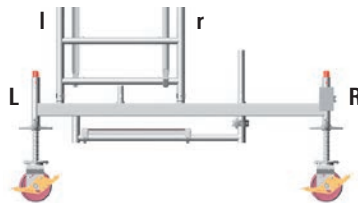
Models:
1401122 – 1401131
1401145 – 1401151



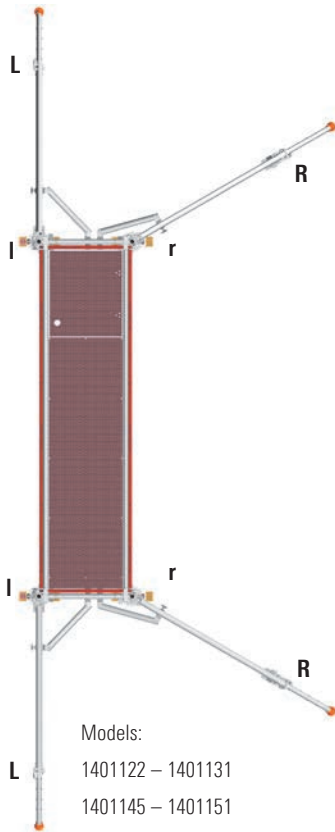
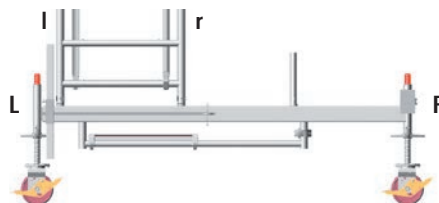
Assembly off-centre:



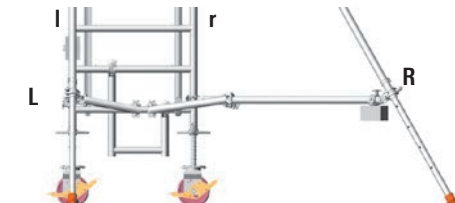
Models:
1401102 – 1401106



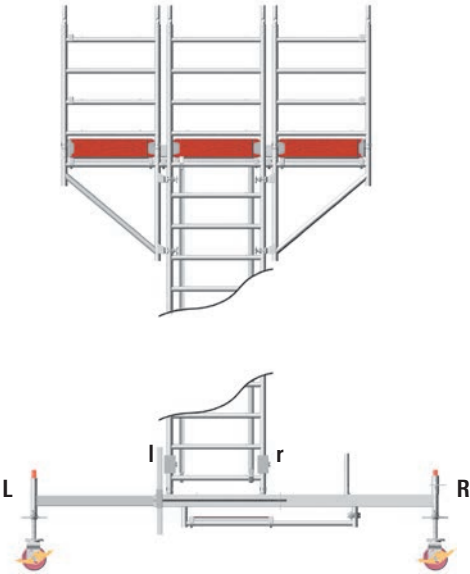
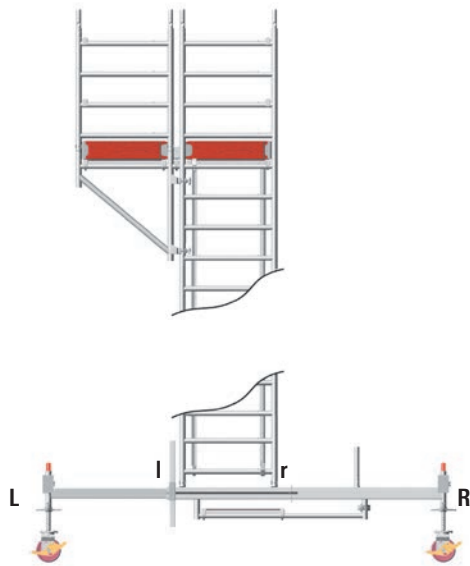
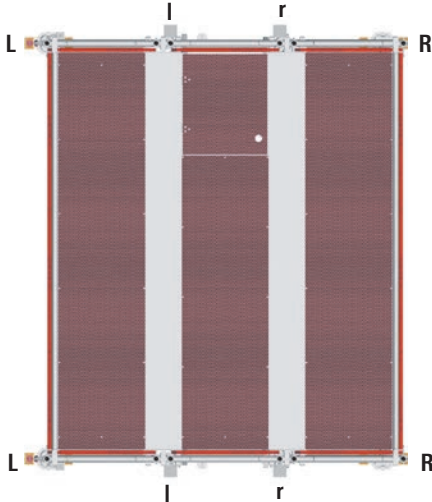
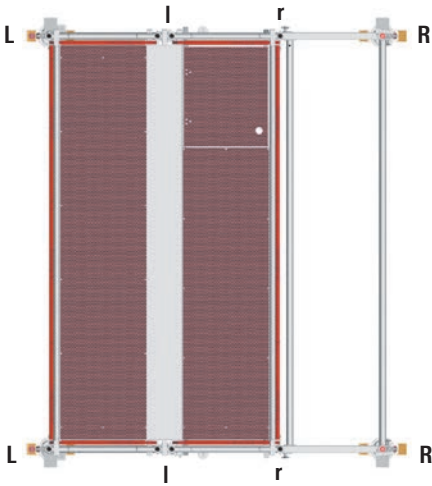
Models:
1401107 – 1401111



Models:
1401122 – 1401131
1401145 – 1401151



Assembly central with brackets:



Example for assembly of model 1401104

Assembly outdoors in central position
Ballast: see page 8



Tower model	1401104
Working height [m]	6.5
Tower height [m]	5.75
Platform height [m]	4.5
Weight [kg] (without ballast)	245.8
Ballasting	
Indoors	
Assembly central	0
Assembly off-centre	L0 R4
Assembly off-centre with wall bracing	0
Assembly central with 1 bracket	L0 R2
Assembly central with 2 brackets	0
Outdoors	
Assembly central	I5 r5
Assembly off-centre	L0 R10
Assembly off-centre with wall bracing	0
Assembly central with 1 bracket	L0 R2
Assembly central with 2 brackets	I8 r8

10. STABILISER ATTACHMENT

Before assembly, please note pages 11 – 14, "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 m stabilisers.

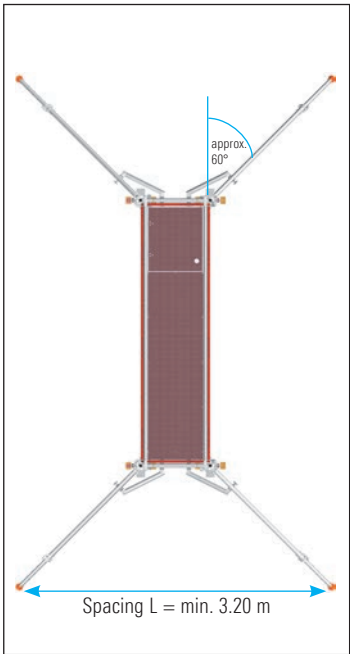


Attach a stabiliser 32/33 to each stile of the ladder frame 14/15 as follows.
Position the upper half-coupler of the stabiliser 32/33 at the appropriate height on the ladder frame 14/15, and before finally tightening the handwheels position the transverse tube by means of the half-coupler, also at the appropriate height on the ladder frame 14/15. 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 stabilizer.

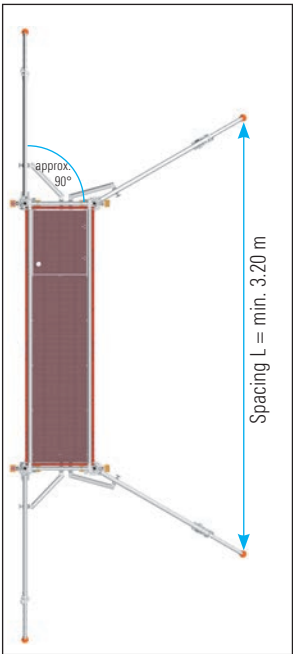
Set the alignment of the stabilisers as follows:
Free-standing assembly:
in each case about 60° to the tower longitudinal side (Fig. left).
Assembly against a wall
On the wall side about 90° to the tower end face
Side facing away from the wall about 60° to the tower longitudinal side (Fig. right).

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 34 to the stabiliser 32/33.
Position the tower rotation lock between the ladder frame and the stabiliser 32 / 33 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 9 – 10). 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 9 – 10).

Free-standing assembly



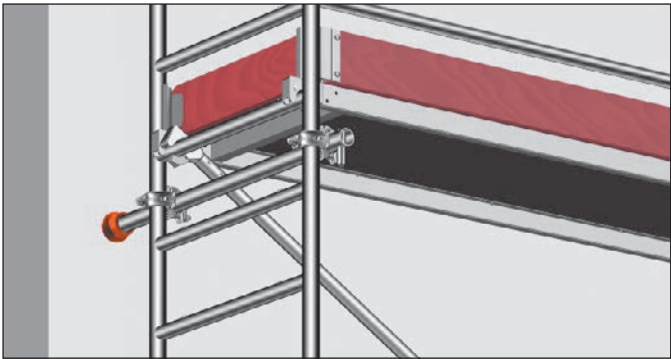
Assembly against a wall



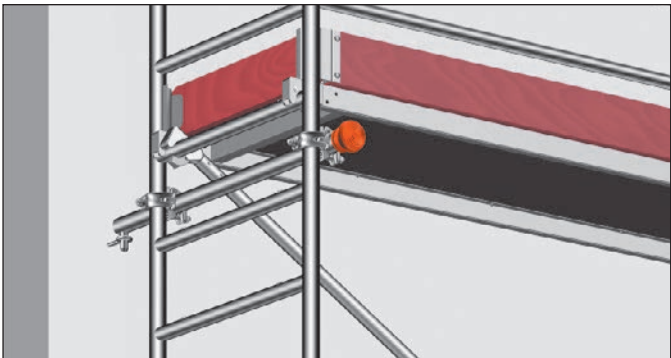
11. WALL BRACING (under compression) ANCHORING (under compression and tension)



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 23 and fix it to the ladder frame 14/15 using two couplers 24 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



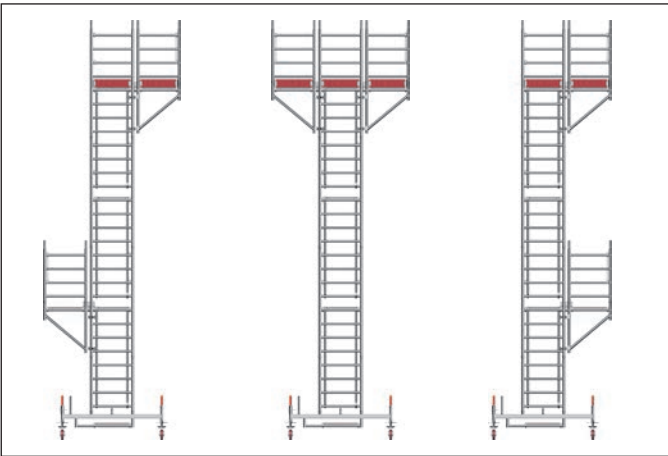
Detail B

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.

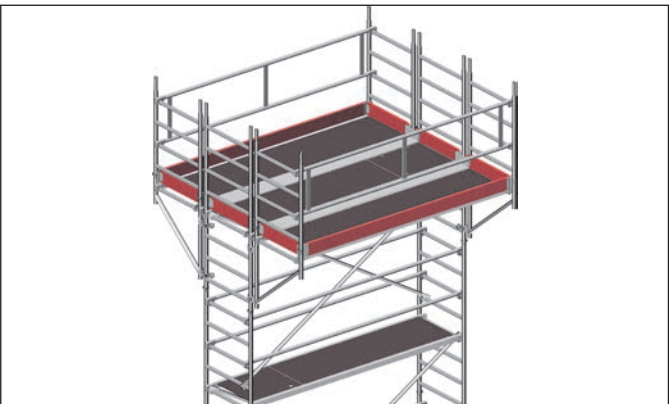
When brackets are used, the following points must be noted in addition:

- The tower may be loaded with 1.5 kN/m (scaffolding group 2) at one working level only.
- To ensure stability, do not use full spindle extension when assembling with brackets.
- The respective 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 tables pages 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 toppling over because of unevenloading..

1. Tower assembly up to the height required in accordance with the assembly sequence already described. (page 11 ff.)
2. Before fitting the brackets, dismantle the side protection at a height of 0.50 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 hook the deck into the bracket rungs.



5. Fit a 1.00 m ladder frame onto the bracket 0.75 m, on which the side protection dismantled earlier is then fitted at the 1 m level. The guardrail still remaining on the tower can then be fitted at the 0.50 m level.
6. Lay 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 installing and adjusting the toe boards 2.85 m between the ladder frames on the bracket and securing them by inserting end toe boards.
8. To attach a second bracket deck surface, steps 2–7 are repeated.

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 16.

13 COMPONENTS OF THE SYSTEM

1259.201 Castor 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 centering
when braked.
Permissible load capacity:
7.0 kN (≈ 700 kg).
*Functioning predecessor article 1259.200
(not shown) can remain in use.*

1259.202 Castor 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 centering
when braked.
Permissible load capacity:
7.0 kN (≈ 700 kg).
*Functioning predecessor article 1268.200
(not shown) can remain in use.*

1260.201 Castor 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 centering
when braked.
Permissible load capacity:
10 kN (≈ 1,000 kg).
*Functioning predecessor article 1260.200
(not shown) can remain in use.*

1260.202 Castor 1000 with electrically conductive polyurethane tyre
Plastic wheel, Ø 200 mm of 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 centering 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 < 104 Ω.

1300.150 Castor D = 150 with base plate 250
Plastic wheel, Ø 150 mm, with base plate, adjustment range 0 – 0.20 m, spindle nut with lock, wheel with twin brake lever and load centering when braked.
Permissible load capacity:
7 kN (≈ 700 kg).

1323.180 Mobile beam w. bar 1.80 m
Steel rectangular tube, hot-dip-galvanised. For base widening in mobile working platforms. Width 1.80 m, weight 16.8 kg.

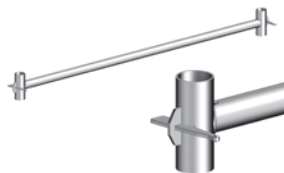
1323.320 Mobile beam with bar, 3.20 m, adjustable
Steel rectangular tube, hot-dip-galvanised. For base widening in mobile working platforms. Width max. 3.20 m, min. 2.30 m, weight 42.5 kg.

8



1338.320 Mobile beam with 2 spigots, 3.20 m, adjustable
Steel rectangular tube, hot-dip-galvanised. For base widening in special rolling tower structures. Width max. 3.20 m, min. 2.30 m, weight 42.6 kg.

9



1211.285 Basic tube 2.85 m
steel tube, hot-dip-galvanized. Length 2.85 m, weight 12.2 kg.

10



1324.285 Base strut 2.85 m
with 2 half-couplers, steel tube hot-dip-galvanised, length 2.85 m, weight 9.3 kg.

11



1344.002 Access ledger 0.3
aluminium, length 0.27 m, weight 2.9 kg.

12



1249.000 Ballast (10 kg)
steel, hot-dip-galvanised with half-coupler.

13



1337.000 Spigot, adjustable
for twin towers, steel, hot-dip-galvanised. For use with mobile beam No. 1338.320
Weight 2.1 kg.

14



1297.004 Ladder frame 75/4
aluminium with press-in spigot. Rungs with non-slip grooving. Height 1.00 m, width 0.75 m, weight 4.7 kg.

1298.004 Ladder frame 75/4
aluminium with screw-in spigot.

15



1297.008 Ladder frame 75/8
aluminium with press-in spigot. Rungs with non-slip grooving. Height 2.00 m, width 0.75 m, weight 8.6 kg.

1298.008 Ladder frame 75/8
aluminium with screw-in spigot.

16



1250.000 Spring clip
steel.
Weight 0.1 kg.

17



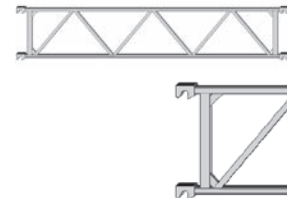
1205.285 Guard rail 2.85 m
aluminium.
Length 2.85 m, weight 3.6 kg.

18



1206.285 Double guardrail 2.85 m
aluminium.
Length 2.85 m, height 0.50 m, weight 8.0 kg.

19



1207.285 Beam 2.85 m
aluminium. Support elements in tower construction kit or double side protection. Length 2.85 m, height 0.50 m, weight 9.6 kg.

20



1208.285 Diagonal brace 3.35 m
aluminium.
Length 3.35 m, weight 4.1 kg.

21



1208.295 Diagonal brace 2.95 m
aluminium.
Length 2.95 m, weight 3.8 kg.

22



1347.335 Deck diagonal brace 3.35 m
Weight 5.0 kg.

23



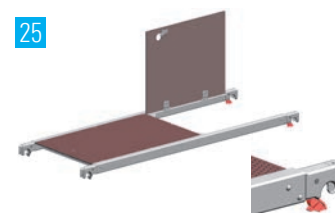
1275.110 Uni distance tube
Aluminium tube with hook and rubber mount. Dia. 48.3 mm, length 1.10 m, weight 1.4 kg.

24



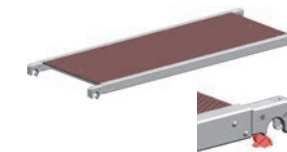
4700.019 / 4700.022 Double coupler
19 or 22 mm WS, weight 1.3 kg.

25



1242.285 Access deck, 2.85 m
Aluminium frame, with deck and hatch of plywood. (BFU 100G) with phenolic resin coating. Length 2.85 m, width 0.68 m, weight 21.6 kg.

26



1241.285 Deck 2.85 m
aluminium frame with deck plywood (BFU 100G) with phenolic resin coating. Length 2.85 m, width 0.68 m, weight 20.0 kg.

27



1300.001 Uni assembly hook
polyethylene, set of 2.
Weight 1.2 kg.

28



1341.075 Bracket 0.75 m
for rolling towers, aluminium. For widening of the work platform on one or two sides. Width 0.75 m, height 0.90 m, weight 5.4 kg.

29



1339.285 Intermediate deck 2.85 m
aluminium.
For bracket structures. Length 2.85 m, width 0.23 m, weight 10.5 kg.

30



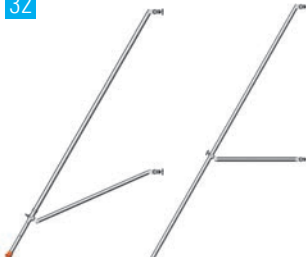
1239.285 Toe board 2.85 m with claw
wood.
Length 2.86 m, height 0.15 m, weight 5.6 kg.

31



1238.075 End toe board 0.75 m
wood.
Length 0.73 m, height 0.15 m, weight 1.6 kg.

32



1248.260 Stabiliser, extendable
aluminium.
Length 2.60 m,
weight 8.5 kg.

33



1248.500 Tower support 5 m
aluminium.
Length 5.00 m,
weight 14.9 kg.

34



1248.261 Rotation lock
aluminium.
Length 0.50 m,
weight 2.8 kg.

36



1314.108 Hook-in ladder
8 rungs,
weight 5.8 kg.

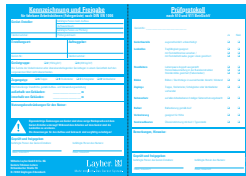
Functioning predecessor article
1314.008 (not shown) can remain
in use.

37



1314.109 Ladder stabiliser set
for hook-in step ladder
Ref. No. 1314.108

6344.400
Tower identification block



6344.010 See-through pocket,
with integrated prohibition sign.



14. 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