

MEVA Stair Tower MTT

Technical Instruction Manual

MEVA Stair Tower



Product features

The MEVA stair tower is a stationary stair assembly for construction sites. It is rectangular and measures 2.57 m by 1.40 m. Structural verification is not required up to a maximum exit height of 50.00 m.

In addition, the individual components of the MEVA stair tower can be used to create scaffolding for rebar work.

The permissible loading of the MEVA stair tower is 200 kg/m². This must not be exceeded.

The stairs with landing allow workers to ascend safely and without fatigue, even when transporting material.

The vertical load-bearing elements – hereafter referred to as MTT standards – are galvanized steel tubes.

The loads resulting from anchoring must be transferred to the existing building or structure. These must be verified in each individual case by the principal.

In most cases the friction between the base and the ground is sufficient to prevent the tower feet from sliding. If this is not the case, suitable measures must be taken to prevent the feet from sliding.

Only use couplers that fulfil the German standard DIN 4420.

The contractor must ensure that the Technical Instruction Manual supplied by MEVA is made available to its employees.

Abbreviations, measurements, figures and tables, etc.

The abbreviation MTT is used for the MEVA stair tower.

DIN means Deutsche Industrie-Norm (German Industrial Standard). E DIN (E = Entwurf / draft) means that the DIN is in draft status and not yet approved. Any further abbreviations are explained where they are used for the first time.

TÜV means Technischer Überwachungsverein. This is the independent German organisation that tests the safety of technical installations, machinery and motor vehicles. If a product passes the test, it is permitted to carry the GS seal. GS stands for Geprüfte Sicherheit (approved safety).

Measurements: This manual uses the metric system, i.e. m (for metre), cm (for centimetre) and mm (for millimetre).

Non-defined dimensions are in cm.

The page numbers in this manual start with MTT. The figures and tables are numbered per page. Depending on its product abbreviation, a cross reference in the text refers to a page, table or figure in this or in another manual. This is indicated by the product code with which the cross-reference begins.

MEVA Stair Tower



Please note

This Technical Instruction Manual contains information, instructions and tips that describe how to use the MEVA equipment on the construction site in a proper, quick and economic way. Most examples shown are standard applications that will occur in practice most often. For more complicated or special applications not covered in this manual, please contact the MEVA experts for advice. They will help you without delay.

When using our products, the federal, state and local occupational health and safety regulations must be observed. Please observe the assembly instructions that your local contractor or employer has created for the site on which the MEVA equipment is used. Such instructions are intended to minimise site-specific risks and must contain the following details:

- The order in which all working steps including assembly and disassembly must be carried out
- The weight of the panels and other system parts
- The type and number of ties and braces as well as the distance between them
- The location, number and dimensions of working scaffolds including the working area and fall protection equipment required
- Attachment points for panel transport by crane. With regard to panel transport, please observe this manual. Any deviation will require structural verification.

Important: Generally, only well-maintained material may be used. Damaged parts must be replaced. Use only original MEVA spare parts for replacement.

Attention: Never wax or oil assembly locks!

Contents

Safety information	4
Possible applications	5
Product overview	6
Foundation	7
Anchoring	8
Assembly	9
Repositioning	15
Disassembly	16
Product list / Stair tower material lists – Important notes	18
Stair tower material list	19
Scaffolding for rebar work	25
Material list for scaffolding for rebar work	26
Transport instructions	27
Inspection sheet for working and safety scaffolds	28
Instructions for use	29
Services	30
Product list	31

MEVA Stair Tower

Safety information

The stability of the MEVA stair tower (Fig. 4.1) is to be verified and ensured at all times, also during assembly.

Visually inspect all components for damage prior to installation and use. Damaged components must not be used.

There is always a risk of accidentally falling when assembling, relocating and disassembling the stair tower. Make sure that all work is performed in a way that minimises the risk of accidentally falling, e.g. by wearing personal protective equipment.

Perform the assembly steps in an order that allows the side protection to be installed immediately so that the work is carried out in a secured area most of the time.

Before starting to assemble the stair tower, ensure that there is no equipment in the vicinity of the working area that might endanger the people working there.

When assembling or disassembling the stair tower, always observe applicable federal, state and local codes and regulations.

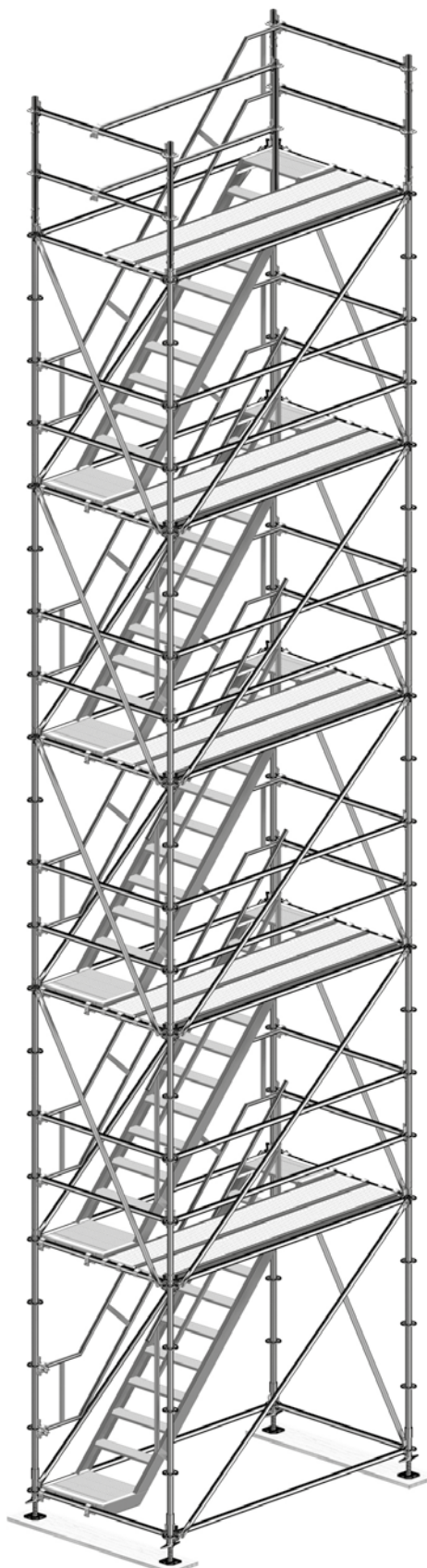


Fig. 4.1

MEVA Stair Tower

Possible applications

The stair tower is rectangular with the basic dimensions 2.57 m x 1.40 m and can be assembled to reach almost any required height.

The exit can be planned and installed either on the stair tower's long side (Fig. 5.1) or on its short side (Fig. 5.2).

Intermediate exits are possible at every level.

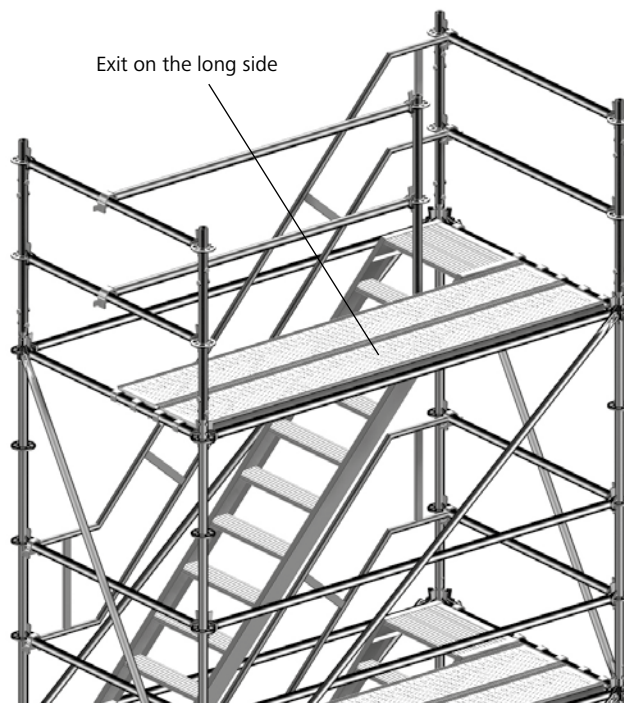


Fig. 5.1

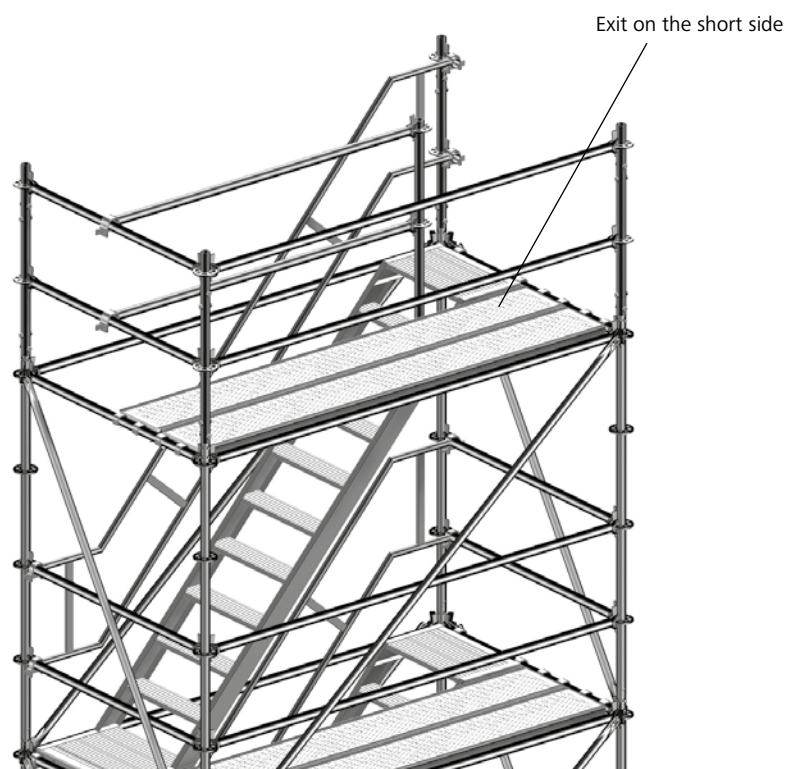


Fig. 5.2

MEVA Stair Tower

Product overview

With only a few individual parts, the MEVA stair tower (Fig. 6.1) can be erected up to a height of 50 m without separate structural verification. The parts can be flexibly combined to adapt the tower to the existing structure or building.

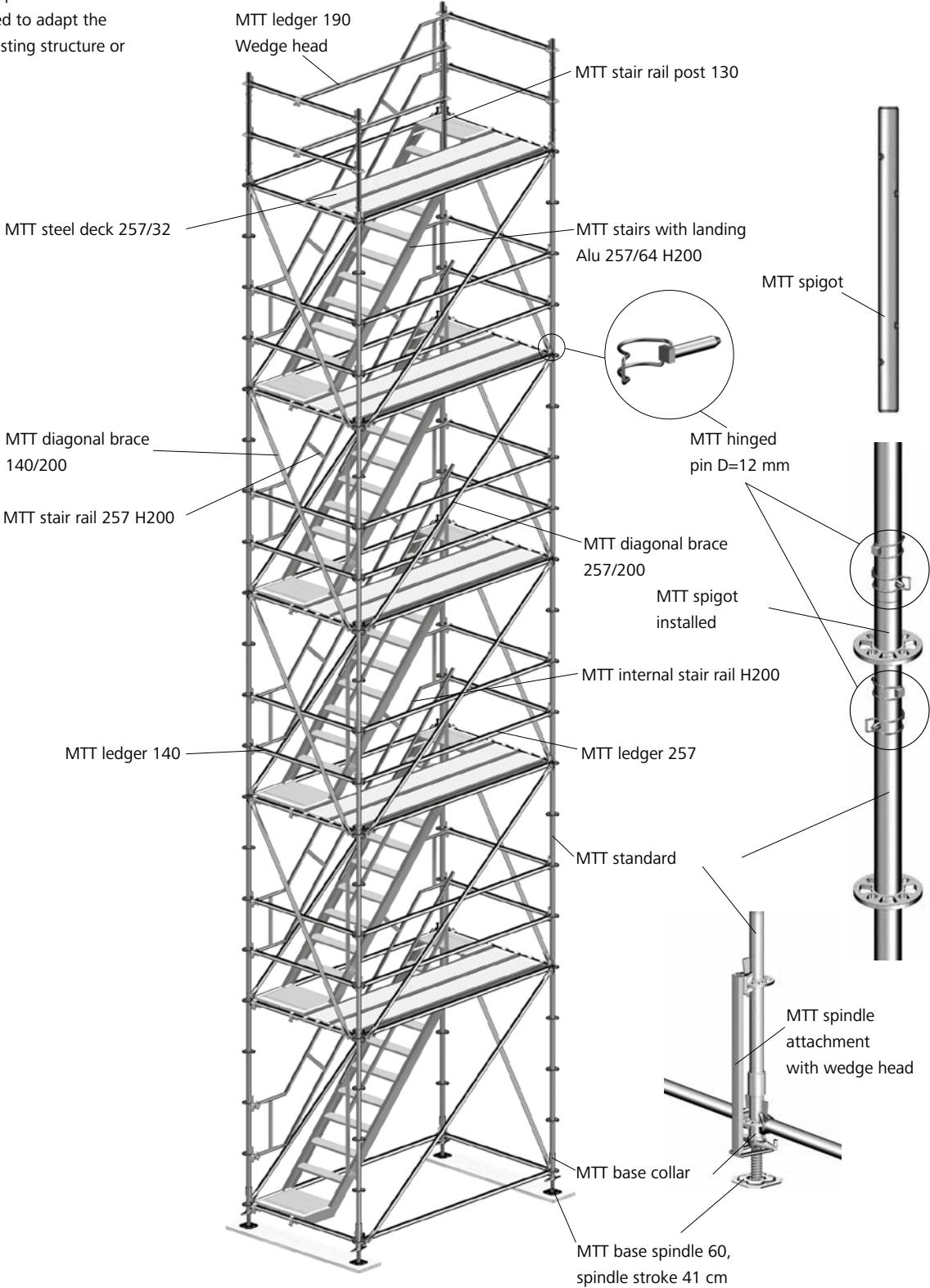


Fig. 6.1

MEVA Stair Tower

Foundation

- Check that the ground can support the load.
- Position suitable load-distributing support plates on the ground. The two base spindles on each end face must always stand on the same support plate (Figures 7.1 and 7.2).

The stair tower must be erected parallel to the building or structure and the resulting gap must be as small as possible. If the gap is less than 30 cm, it must be bridged with planks that are at least 3 cm thick and which are installed so that they cannot move or slide. If the gap is greater than 30 cm, it must be bridged with side protection.



Fig. 7.1

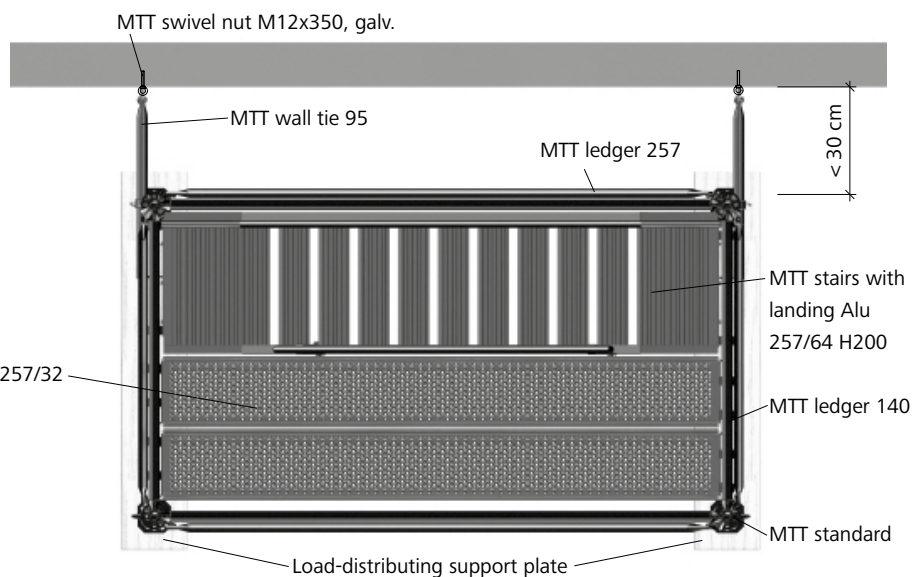


Fig. 7.2 Top view

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Anchoring

Missing anchoring or anchoring without sufficient load capacity will reduce the stair tower's stability and the tower may collapse. Anchor material may only be installed and removed by the persons who are assembling the stair tower.

Anchors such as the MTT wall tie 95 (Fig. 8.1) are essential for the stability of the stair tower and should be installed repeatedly as the stair tower is assembled and its height increases.

For the number of MTT wall ties required as a function of the tower height refer to MTT-19 to 24.

Please observe

- Install anchors only in buildings or structures with sufficient load-bearing capacity. In case of doubt, check the stability of the anchoring area by means of pull-out tests.
- No structural verification is required if, according to expert opinion, the load-bearing capacity is sufficient and the utilisation value of the anchoring force A_{\perp} does not exceed 1.5 kN (or 6.0 kN when anchoring in reinforced concrete according to German standard DIN 1045).
- The load-bearing capacity of all fasteners such as ties, swivel nuts and dowels must be verified to ensure they can withstand the anchoring force.
- Check dowels according to local regulations.

For further anchoring methods refer to Figures 8.2 to 8.4.

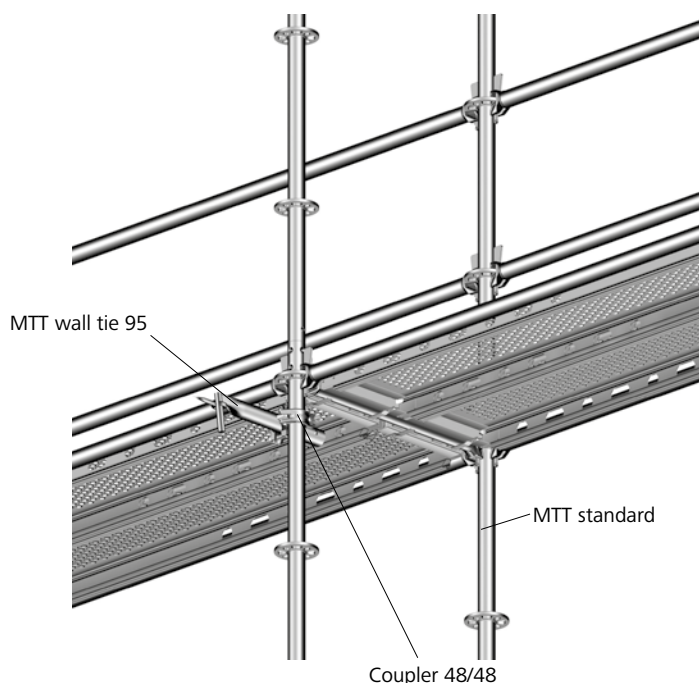


Fig. 8.1



Fig. 8.2

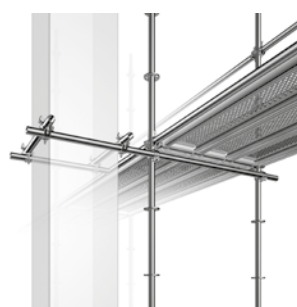


Fig. 8.3

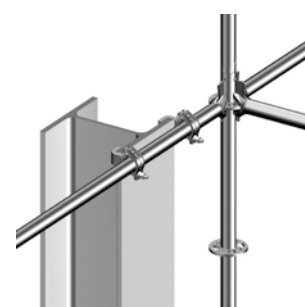


Fig. 8.4

MEVA Stair Tower

Assembly

- Check that the ground can support the load.
- Position suitable load-distributing support plates on the ground.
- The two base spindles on each end face must always stand on the same support plate.
- The maximum spindle length of 41 cm must not be exceeded.
- Do not exceed the maximum gap to the wall of the building or structure.
- Make sure that all work is performed in a way that minimises the risk of accidentally falling, e.g. by wearing personal protective equipment.

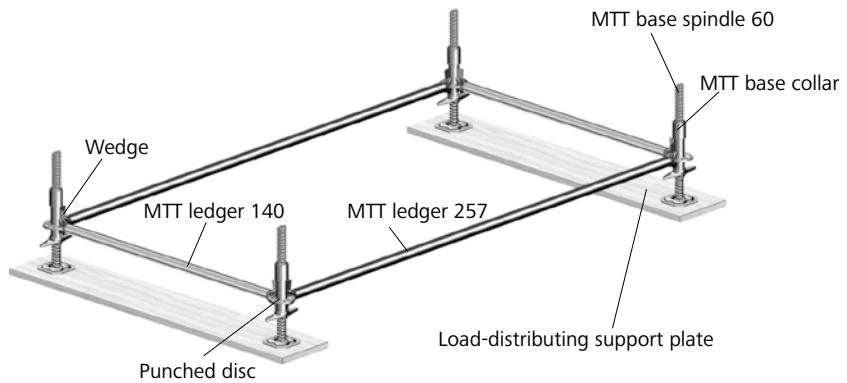


Fig. 9.1

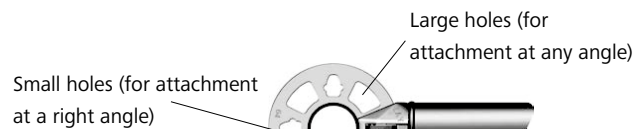


Fig. 9.2 Punched disc

1. Start assembly at the highest point on the ground.
2. Position the load-distributing support plates on the ground.
3. Insert the MTT base collars into the MTT base spindles 60 and place these on the support plates.
4. Install the MTT ledgers in the small holes in the punched discs (Fig. 9.2).
5. Level out the basic frame of the MEVA stair tower using a spirit level and align it with the building or structure.
6. Strike the wedges with a hammer until they are secure (Fig. 9.1).
7. Connect each MTT spigot to the MTT standard with two hinged pins.
8. Insert the MTT standards (Fig. 9.3).

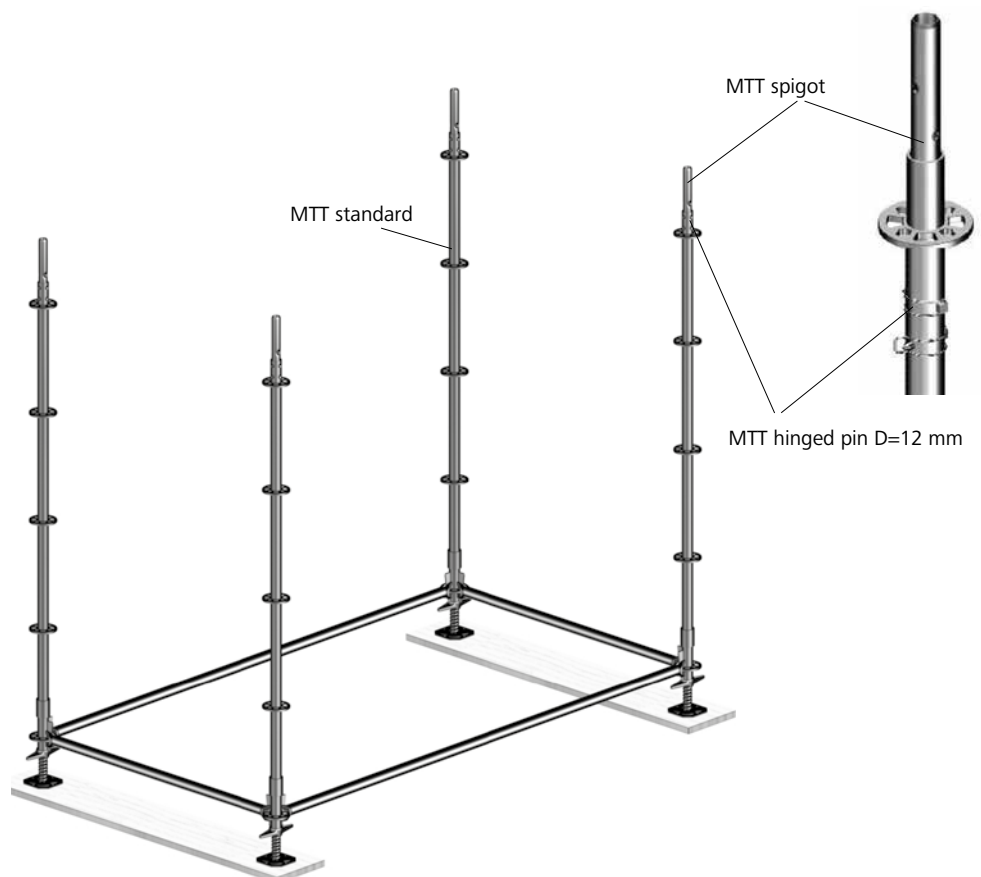


Fig. 9.3

Description	Ref. No.
MTT base spindle 60.....	24-202-60
MTT base collar	24-202-80
MTT ledger 257	24-201-10
MTT ledger 140	24-201-20
MTT spigot	24-202-76
MTT standard 200	24-200-40

MEVA Stair Tower

Assembly

9. The MTT spindle attachment with wedge head is attached to the four MTT standards (Fig. 10.1) and prevents the MTT base spindle and the MTT base collar falling off when lifting tower units by crane.

10. Install MTT ledgers 257 and 140.

11. Stabilise the frame with MTT diagonal braces (Fig. 10.2).

12. Hook in the steel decks.

13. Place the stairs with landing onto the ledgers and close the safety device to prevent them lifting out (Fig. 10.3).

MTT spindle attachment with wedge head



Fig. 10.1

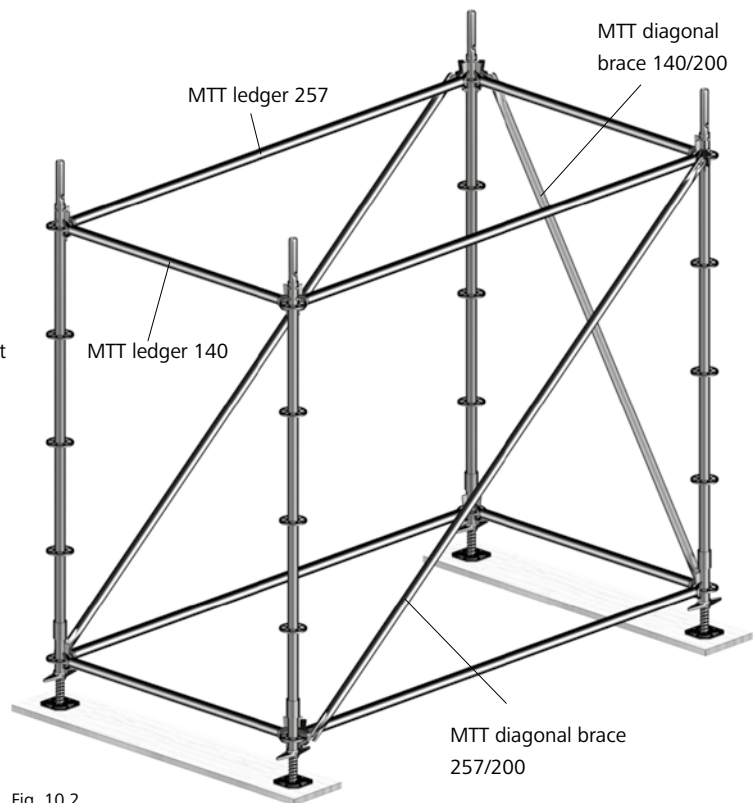


Fig. 10.2

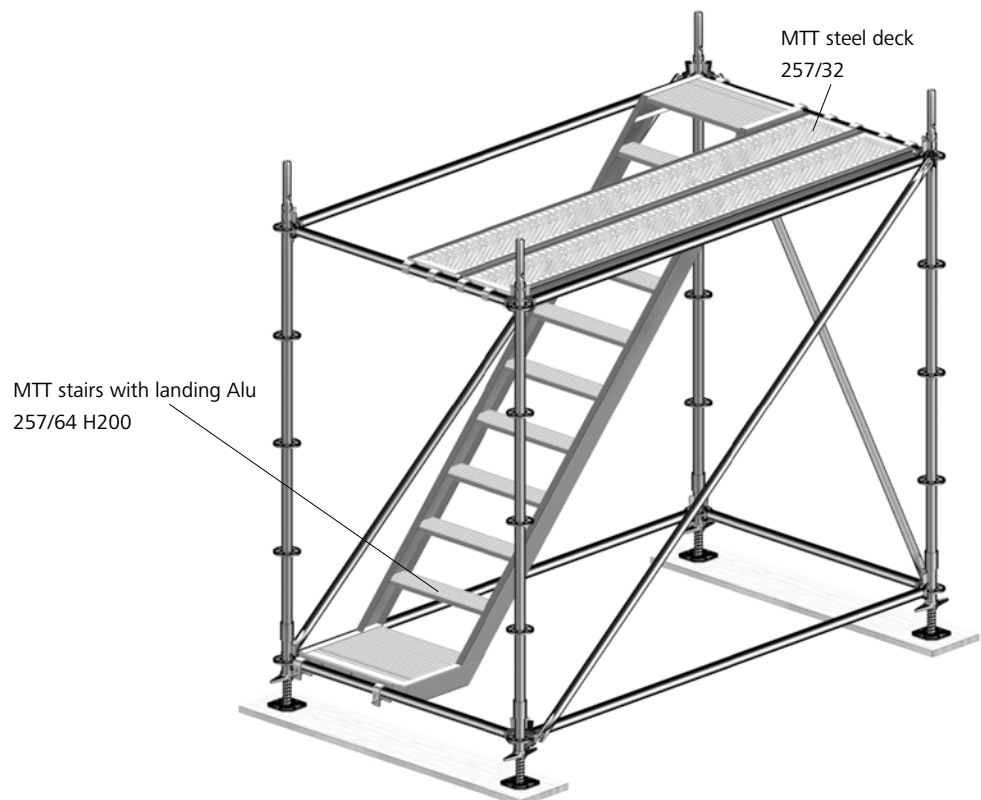


Fig. 10.3

Description	Ref. No.
MTT spindle attachment with wedge head.....	24-202-70
MTT ledger 257.....	24-201-10
MTT ledger 140.....	24-201-20
MTT diagonal brace 257/200..	24-202-10
MTT diagonal brace 140/200..	24-202-20
MTT steel deck 257/32.....	24-200-50
MTT stairs with landing Alu 257/64 H200.....	24-200-20

MEVA Stair Tower

Assembly

14. Attach MTT spigots to the MTT standards for the second level and plug the MTT standards into place.

15. Install MTT hinged pins D=12 mm at the bottom of the MTT standards.

16. Install the MTT ledgers 140.

17. Install two MTT stair rail adaptors to the punched discs of the lower MTT standard in order to attach the MTT stair rail on the the outside of the stairs (Fig. 11.1).

18. Install the MTT stair rail 257 and, if required, the MTT internal stair rail.

Please observe

MTT internal stair rails are mandatory for dog-leg stairs and increase the safety of stairs that are not dog-legged.

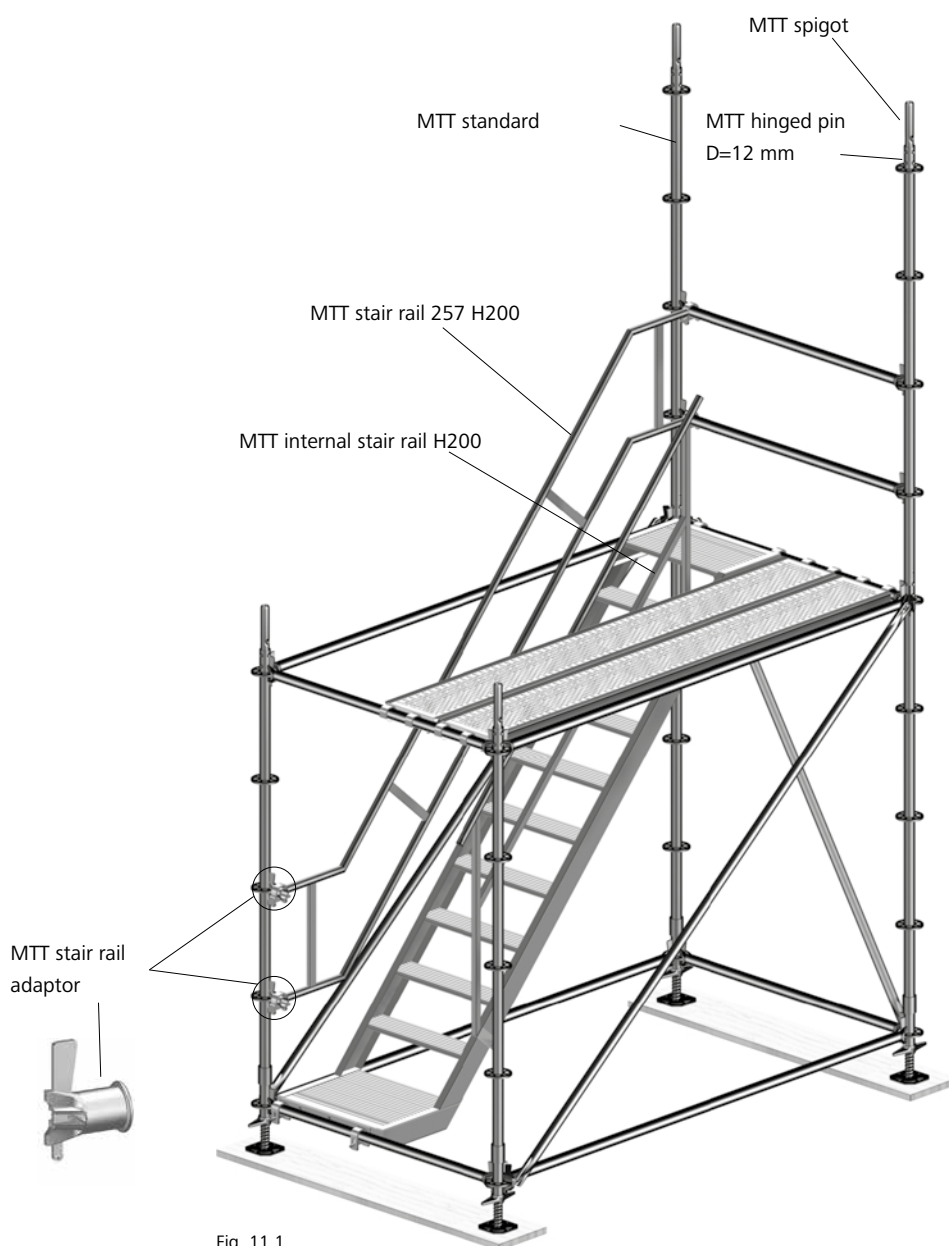


Fig. 11.1

Description	Ref. No.
MTT standard 200	24-200-40
MTT stair rail adaptor.....	24-202-85
MTT stair rail 257 H200	24-200-70
MTT internal stair rail H200	24-200-78
MTT spigot	24-202-76
MTT hinged pin D=12 mm	24-202-90

Assembly

19. Attach MTT spigots to the MTT standards and install the MTT standards.
20. Install MTT hinged pins D=12 mm at the bottom of the MTT standards.
21. Install MTT ledgers 257 and 140.
22. Stabilise the frame with diagonal braces (Fig. 12.1).

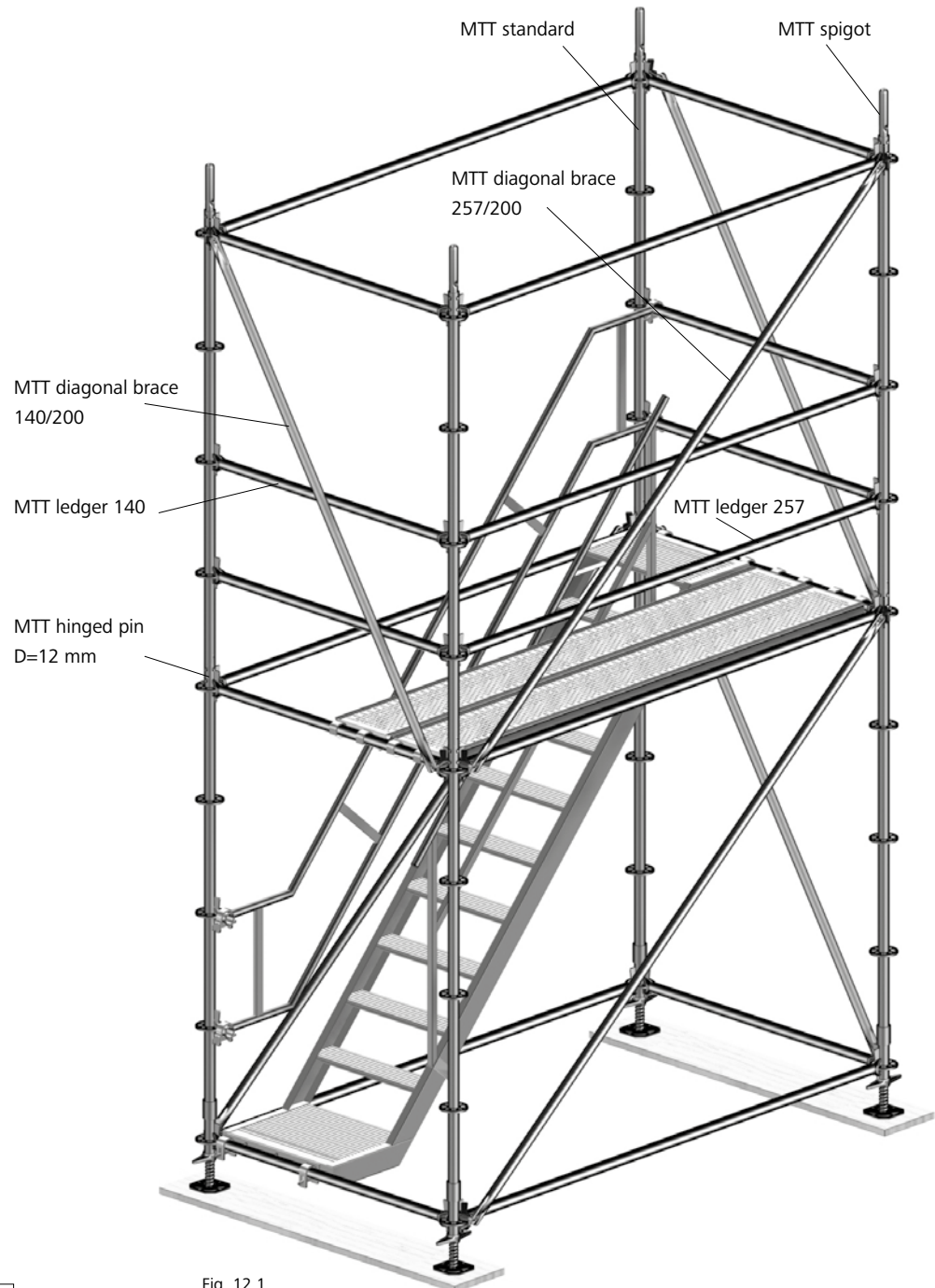


Fig. 12.1

Description	Ref. No.
MTT standard 200	24-200-40
MTT ledger 257	24-201-10
MTT ledger 140	24-201-20
MTT spigot	24-202-76
MTT hinged pin D=12 mm	24-202-90
MTT diagonal brace	
257/200	24-202-10
140/200	24-202-20

MEVA Stair Tower

Assembly

23. Repeat steps 7 to 22 until the desired stair tower height has been reached (Figures 13.1 to 13.4).

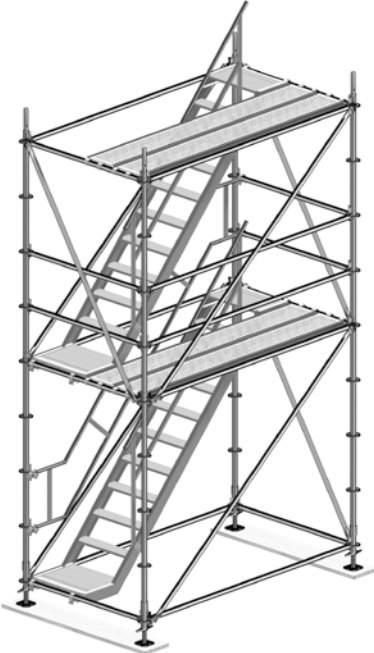


Fig. 13.1

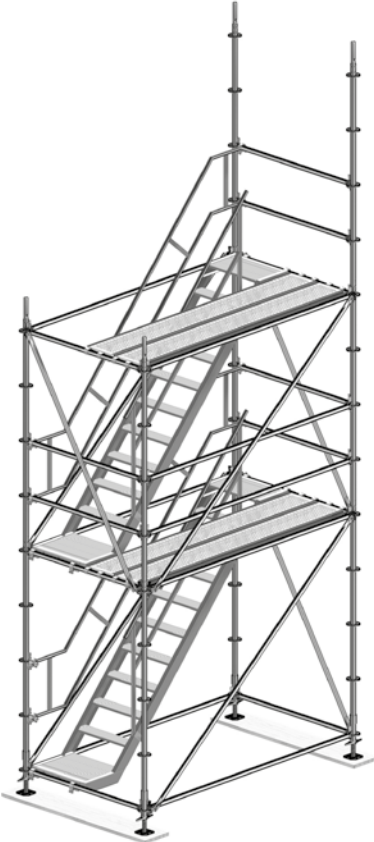


Fig. 13.2

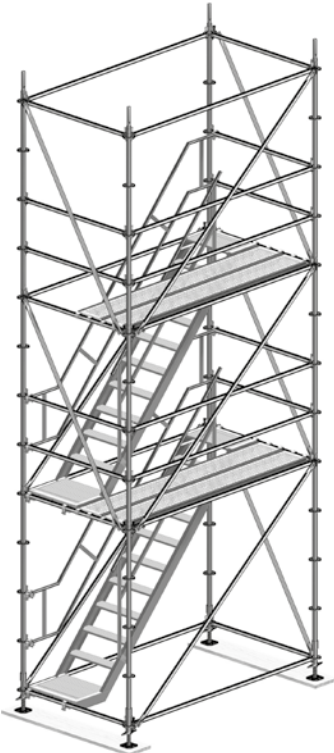


Fig. 13.3

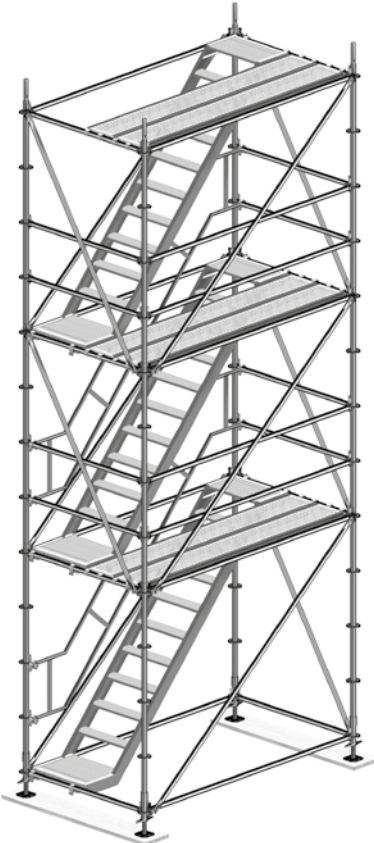


Fig. 13.4

MEVA Stair Tower

Assembly

24. Once the stair tower has reached the desired height, the top level is secured with an MTT stair rail post 130 and two MTT ledgers 190 with wedge head to provide fall protection (Fig. 14.1).

If the exit is to be located on the long side, two MTT ledgers 140 are installed on the end faces (short sides) (Fig. 14.1).

If the exit is to be located on an end face (short side), two MTT ledgers 257 are installed on the long side and the two MTT ledgers 140 are not required on the exit side. Hence two MTT stair rail adaptors must be attached to the punched discs of the MTT standards in order to attach the MTT stair rail post 257 (Fig. 14.2).

If the gap is less than 30 cm, it must be bridged with planks that are at least 3 cm thick and which are installed so that they cannot move or slide. If the gap is greater than 30 cm, it must be bridged with side protection.

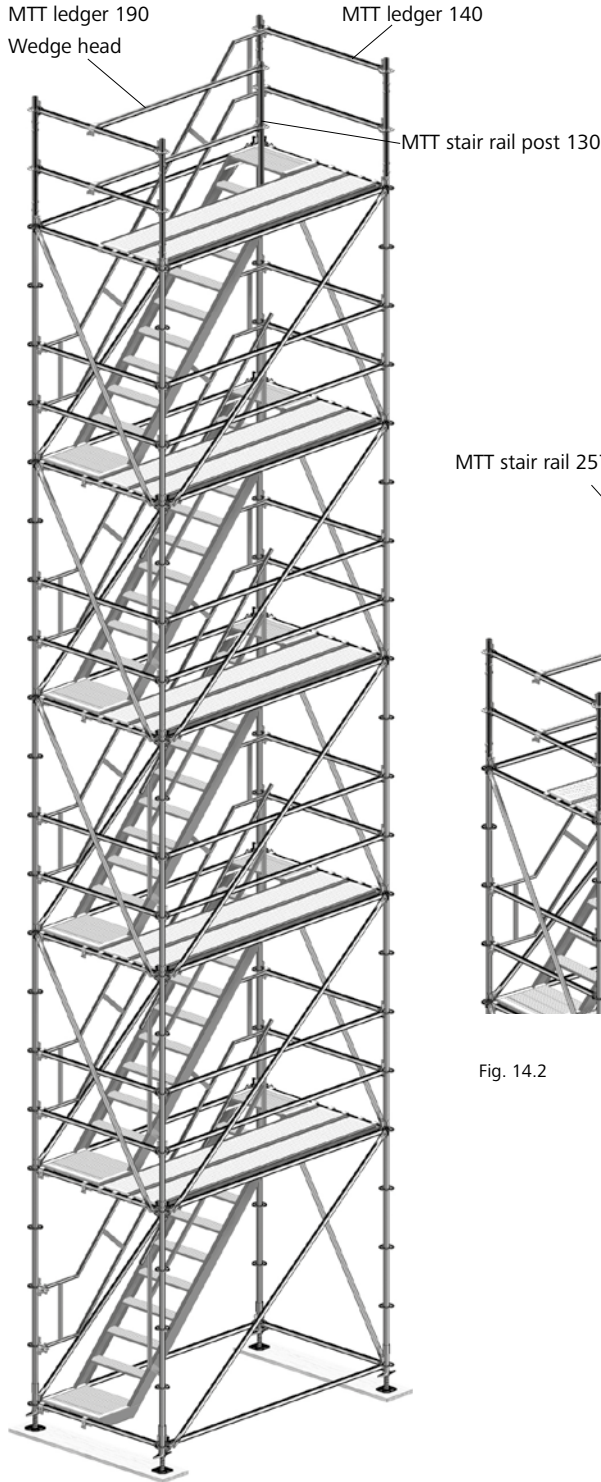


Fig. 14.1

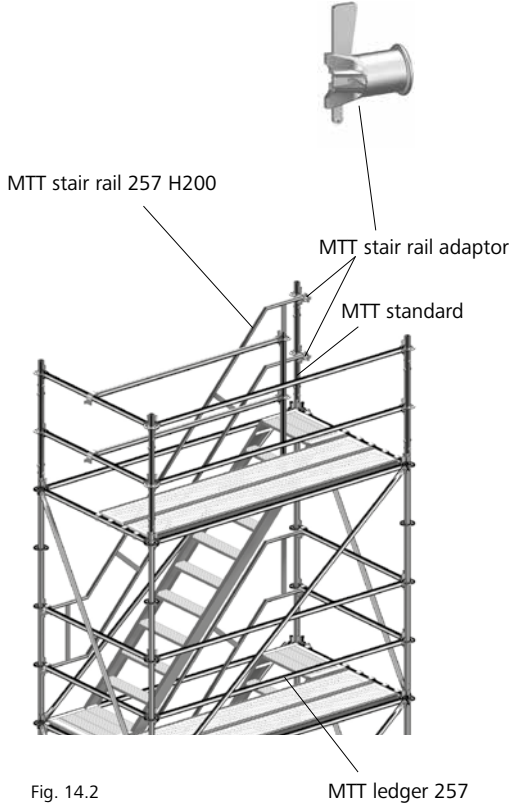


Fig. 14.2

Description	Ref. No.
MTT stair rail adaptor.....	24-202-85
MTT ledger 190 wedge head.....	24-201-40
MTT stair rail post 130.....	24-200-90
MTT ledger 257.....	24-201-10
MTT ledger 140.....	24-201-20

MEVA Stair Tower

Repositioning

The MEVA stair tower can be lifted and relocated with a crane, either as a complete unit or in subsections.

Attention

All MTT standards of the complete tower or subsections of the tower must be connected with MTT hinged pins D=12 mm.

The maximum height of the tower or tower subsections to be relocated must not exceed 15 m.

To relocate subsections of the tower, first remove the MTT diagonal braces 257 and 140 as well as the MTT stairs with landing that connect the subsections.

If necessary, the free MTT tower ends have to be stabilized with bracing made up of scaffold tubes.

Make sure that all work is performed in a way that minimises the risk of accidentally falling, e.g. by wearing personal protective equipment.

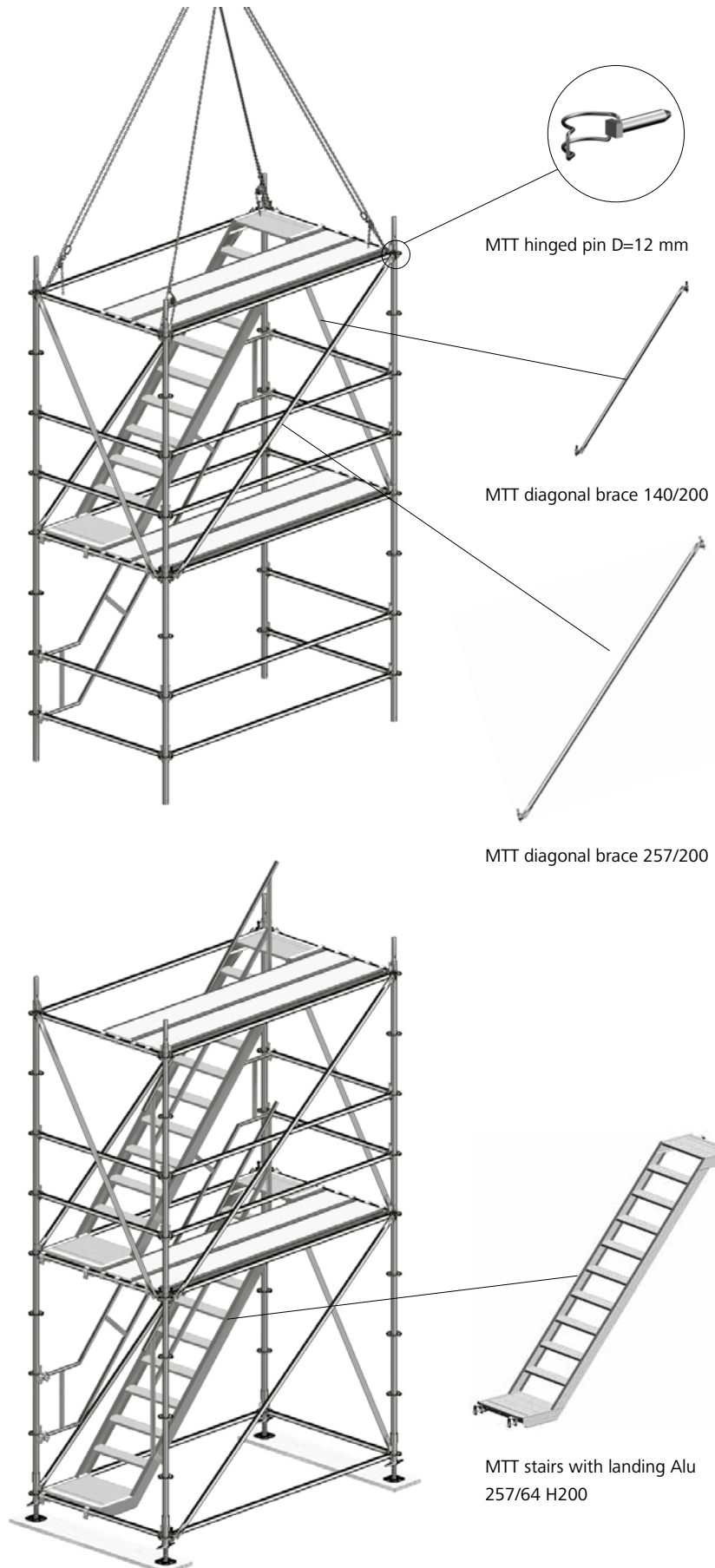


Fig. 15.1

Description	Ref. No.
MTT hinged pin D=12 mm.....	24-202-90

MEVA Stair Tower

Disassembly

The MEVA stair tower is disassembled in the reverse order to assembly (see pages MTT-9 to -14).

Make sure that all work is performed in a way that minimises the risk of accidentally falling, e.g. by wearing personal protective equipment.

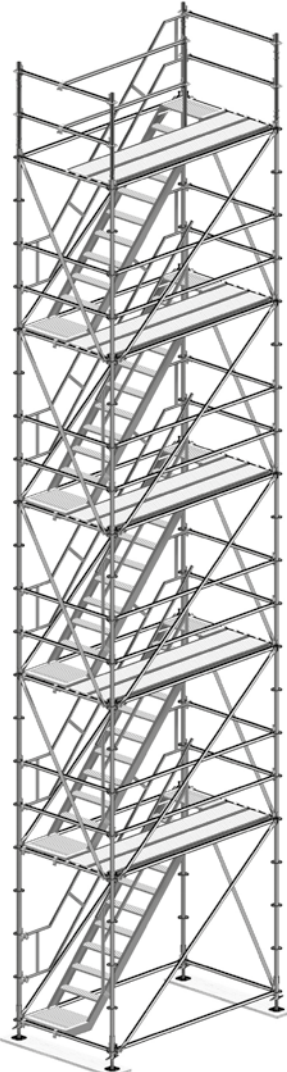


Fig. 16.1

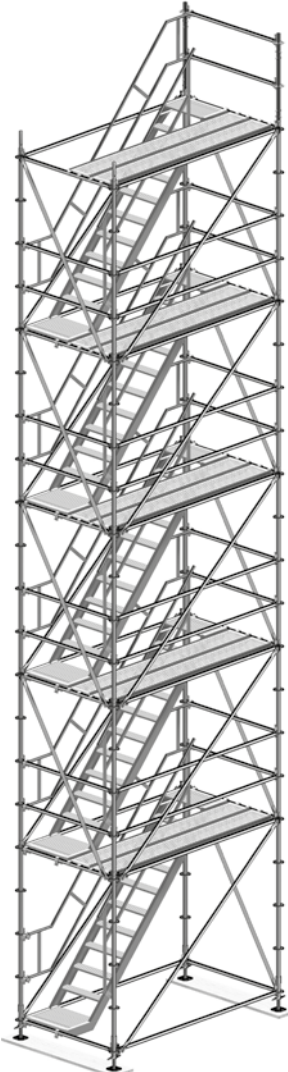


Fig. 16.2

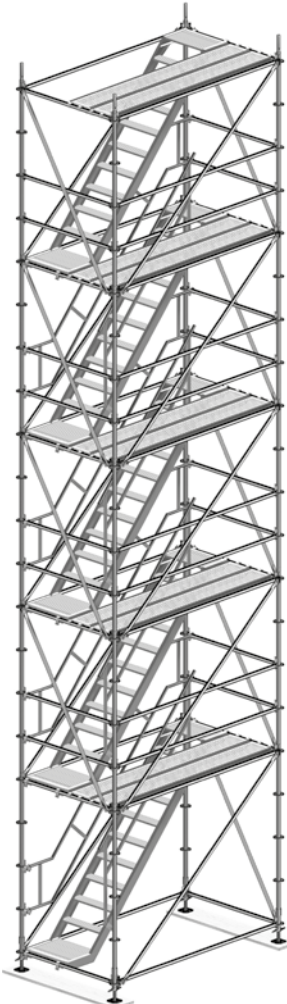


Fig. 16.3

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Height combinations

The MEVA stair tower can be erected up to a maximum exit height of 50.00 m without separate structural verification.

The standard storey spacing is 2.00 m.

Note that other storey spacings must be planned separately.

Pages MTT-19 to -24 list the material required for stair tower heights from 2 to 50 m in increments of 50 cm.

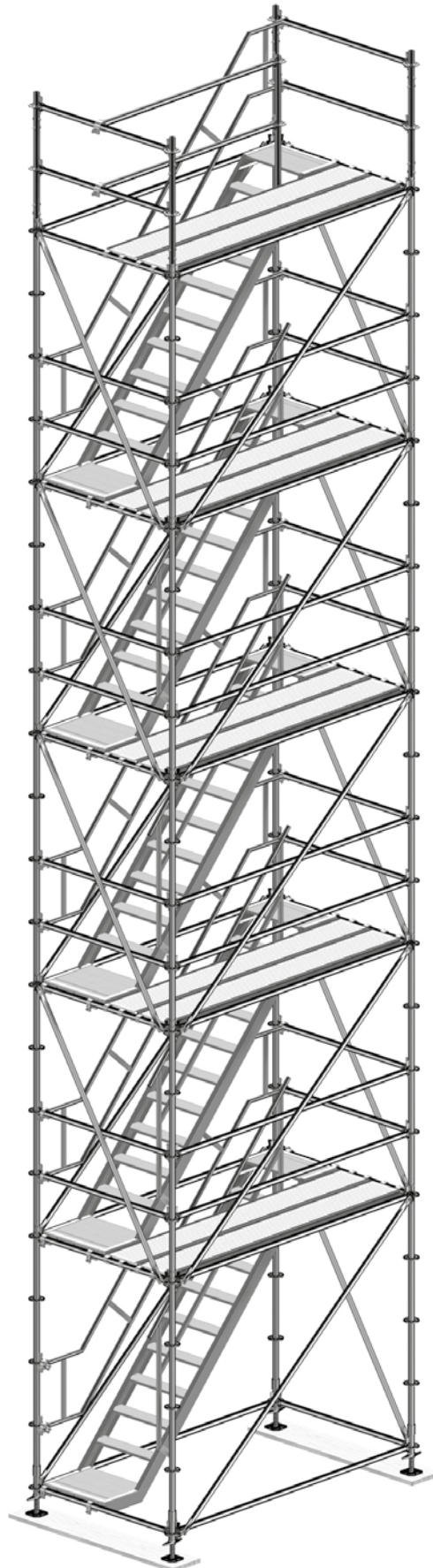


Fig. 17.1

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Stair tower material lists – Important notes

The tower's top exit can be installed on the long side (Fig. 18.1) or on the short side (Fig. 18.2).

Intermediate exits are possible at every level.

The material lists on pages MTT-19 to -24 show all parts required for standard applications.

Depending on the location of the exit side (short or long side) and on the number of additional intermediate exits, the following material must be added to or subtracted from the material list.

For the exit at the top

- Exit on the long side: subtract two MTT ledgers 257
- Exit on the short side: subtract two MTT ledgers 140 and add two MTT stair rail adaptors

For intermediate exits

- For each intermediate exit on the long side: subtract two MTT ledgers 257 as well as one MTT diagonal brace 257/200
- For each intermediate exit on the short side: subtract two MTT ledgers 140 as well as one MTT diagonal brace 140/200 and add two MTT stair rail adaptors

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

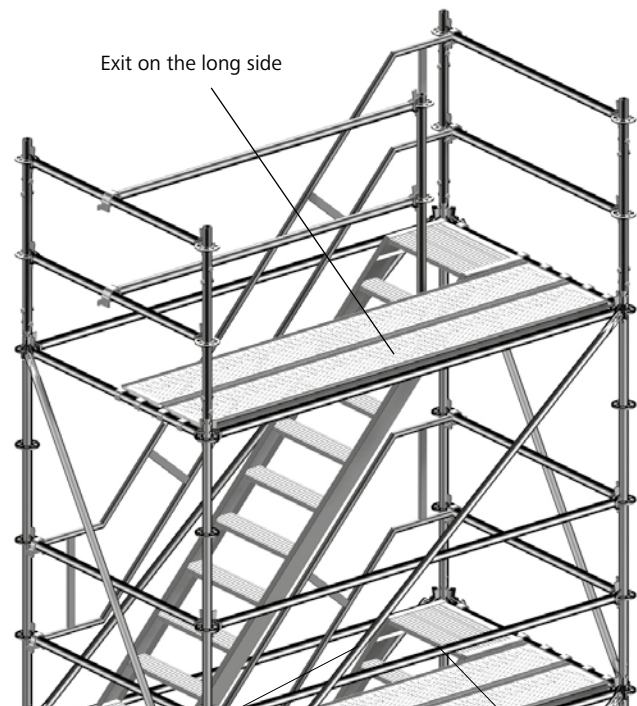
For anchoring details refer to page MTT-8.

Please observe

MTT internal stair rails are mandatory for dog-leg stairs and increase the safety of stairs that are not dog-legged.

The material lists on pages MTT-19 to -24 are for stairs that are not dog-legged and do not include MTT internal stair rails for standard levels.

The height information in the material lists on pages MTT-19 to -24 include the MTT base spindle 60 with an extension length of 10 cm.



MTT diagonal brace 257/200
Fig. 18.1

MTT ledger 257

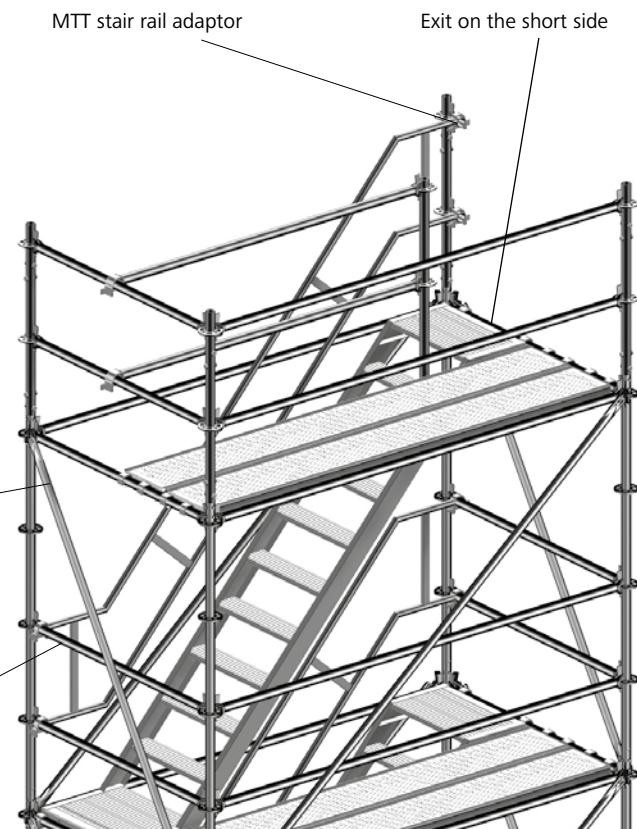


Fig. 18.2

Description	Ref. No.
MTT ledger 257	24-201-10
MTT ledger 140	24-201-20
MTT diagonal brace 257/200	24-202-10
MTT diagonal brace 140/200	24-202-20
MTT stair rail adaptor	24-202-85
MTT internal stair rail	
H200	24-200-78
H150	24-200-79
H100	24-200-80

MEVA Stair Tower

Stair tower material list

The material list on this page shows all parts required for the standard stair tower with the exit at a height between 2.00 m and 10.00 m.

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

For information about the top exit and intermediate exits refer to page MTT-18.

For anchoring details refer to page MTT-8.

Material list for the MEVA stair tower		Total height (m)												Weight (kg)								
		3.30	3.80	4.30	4.80	5.30	5.80	6.30	6.80	7.30	7.80	8.30	8.80	9.30	9.80	10.30	10.80	11.30	Exit height (m)		Component weight (kg)	
Ref. no.	Description	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00				
24-202-60	MITT base spindle 60	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.60			
24-202-80	MITT base collar	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1.40			
24-202-70	MITT spindle attachment with wedge head	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.00			
24-200-40	MITT standard 200	4	4	4	4	8	8	8	8	12	12	12	12	16	16	16	16	20	10.20			
24-200-41	MITT standard 150																		7.80			
24-200-42	MITT standard 100	4	4	8	4	4	4	8	4	4	4	8	4	4	4	8	4	4	5.50			
24-200-43	MITT standard 50																		3.20			
24-202-76	MITT spigot	4	8	8	8	8	12	12	12	12	16	16	16	16	20	20	20	20	1.60			
24-202-90	MITT hinged pin D=12 mm	16	32	32	32	32	48	48	48	48	64	64	64	64	80	80	80	80	0.10			
24-201-20	MITT ledger 140	8	14	14	14	14	20	20	20	20	26	26	26	26	32	32	32	32	5.40			
24-201-10	MITT ledger 257	6	8	8	8	10	12	12	12	14	16	16	16	18	20	20	20	22	9.70			
24-202-10	MITT diagonal brace 257/200	2	2	2	2	4	4	4	4	6	6	6	6	8	8	8	8	10	9.50			
24-202-11	MITT diagonal brace 257/150			1					1				1					1	10.50			
24-202-12	MITT diagonal brace 257/100			1					1			1						1	8.80			
24-202-20	MITT diagonal brace 140/200	1	2	2	2	3	4	4	4	5	6	6	6	7	8	8	8	9	7.50			
24-202-21	MITT diagonal brace 140/150			2	2				2				2					2	6.87			
24-202-22	MITT diagonal brace 140/100																		5.91			
24-200-50	MITT steel deck 257/32	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	18.90			
24-200-20	MITT stairs with landing Alu 257/64 H200	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	23.20			
24-200-21	MITT stairs with landing Alu 257/64 H150			1					1				1					1	22.80			
24-200-10	MITT starting stair Alu H100			1															14.80			
24-200-23	MITT stairs with landing Alu H50										1								11.20			
24-200-70	MITT stair rail 257 H200	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	18.10			
24-200-71	MITT stair rail 257 H150																		17.00			
24-200-90	MITT stair rail post 130	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6.10			
24-201-40	MITT ledger 190 wedge head	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	7.80			
24-202-85	MITT stair rail adaptor	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.70			
24-200-80	MITT internal stair rail H100			1					1										10.20			
24-202-50	MITT wall tie 95	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3.70			
24-202-97	MITT swivel nut 12x350, galv.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.40			
29-412-52	Swivel joint coupler 48/48	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.20			
		369	492	539	546	594	718	768	799	831	954	998	1025	1057	1180	1234	1245	1293	Weight (kg)			

MEVA Stair Tower

Stair tower material list

The material list on this page shows all parts required for the standard MEVA stair tower with the exit at a height between 10.50 m and 18.50 m.

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

For information about the top exit and intermediate exits refer to page MTT-18.

For anchoring details refer to page MTT-8.

Material list for the MEVA stair tower	Total height (m)																Component weight (kg)		
	11.80	12.30	12.80	13.30	13.80	14.30	14.80	15.30	15.80	16.30	16.80	17.30	17.80	18.30	18.80	19.30	19.80	Exit height (m)	Weight (kg)
Ref. no. Description																			
24-202-60 MTT base spindle 60	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.60	
24-202-80 MTT base collar	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1.40	
24-202-70 MTT spindle attachment with wedge head	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.00	
24-200-40 MTT standard 200	20	20	20	24	24	24	24	28	28	28	28	32	32	32	32	36	36	10.20	
24-200-41 MTT standard 150			4			4					4							7.80	
24-200-42 MTT standard 100	4	8	4	4	4	4	4	4	4	8	4	4	4	4	4	4	4	5.50	
24-200-43 MTT standard 50	4				4							4						3.20	
24-202-76 MTT spigot																		1.60	
24-202-90 MTT hinged pin D=12 mm	24	24	24	24	28	28	28	28	32	32	32	32	36	36	36	36	40	0.10	
24-201-20 MTT ledger 140	38	38	38	38	44	44	44	44	50	50	50	56	56	56	56	62	62	5.40	
24-201-10 MTT ledger 257	24	24	24	26	28	28	28	30	32	32	32	34	36	36	36	38	40	9.70	
24-202-10 MTT diagonal brace 257/200	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	9.50	
24-202-11 MTT diagonal brace 257/150			1			1					1						1	10.50	
24-202-12 MTT diagonal brace 257/100		1				1				1				1				8.80	
24-202-20 MTT diagonal brace 140/200	10	10	10	11	12	12	12	13	12	14	14	15	16	16	16	17	18	7.50	
24-202-21 MTT diagonal brace 140/150			2					2										6.87	
24-202-22 MTT diagonal brace 140/100		2								2								5.91	
24-200-50 MTT steel deck 257/32	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20	22	22	18.90	
24-200-20 MTT stairs with landing Alu 257/64 H200	5	5	5	6	6	6	6	7	7	7	7	8	8	8	8	9	9	23.20	
24-200-21 MTT stairs with landing Alu 257/64 H150			1					1										22.80	
24-200-10 MTT starting stair Alu H100		1									1							14.80	
24-200-23 MTT stairs with landing Alu H50					1								1					11.20	
24-200-70 MTT stair rail 257 H200	5	5	5	6	6	6	6	7	7	7	7	8	8	8	8	9	9	18.10	
24-200-71 MTT stair rail 257 H150			1															17.00	
24-200-90 MTT stair rail post 130	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6.10	
24-201-40 MTT ledger 190 wedge head	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	7.80	
24-202-85 MTT stair rail adaptor	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.70	
24-200-80 MTT internal stair rail H100		1																10.20	
24-202-50 MTT wall tie 95	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	3.70	
24-202-97 MTT swivel nut 12x350, galv.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	0.40	
29-412-52 Swivel-joint coupler 48/48	6	6	6	6	6	6	6	8	8	8	8	8	8	8	10	10	10	1.20	
	1459	1503	1531	1563	1693	1747	1774	1807	1921	1980	2007	2040	2169	2223	2251	2284	2413		

MEVA Stair Tower

Stair tower parts list

The material list on this page shows all parts required for the standard MEVA stair tower with the exit at a height between 19.00 m and 27.00 m.

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

For information about the top exit and intermediate exits refer to page MTT-18.

For anchoring details refer to page MTT-8.

Material list for the MEVA stair tower		Total height (m)																													
		Exit height (m)	Component weight (kg)	20.30	19.00	20.80	19.50	20.00	21.30	20.50	21.80	22.30	21.00	22.80	23.30	22.00	23.80	24.30	23.00	24.80	25.30	24.00	25.80	26.30	25.00	26.80	27.30	26.00	27.80	28.30	
Ref. no.	Description																														
24-202-60	MTT base spindle 60	3.60		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
24-202-80	MTT base collar	1.40		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
24-202-70	MTT spindle attachment with wedge head	2.00		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
24-200-40	MTT standard 200	10.20		36	36	40	40	40	40	40	40	40	40	40	44	44	44	44	44	44	44	48	48	48	48	48	52	52	52	52	
24-200-41	MTT standard 150	7.80		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
24-200-42	MTT standard 100	5.50		8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
24-200-43	MTT standard 50	3.20																													
24-202-76	MTT spigot	1.60																													
24-202-90	MTT hinged pin D=12 mm	0.10		40	40	40	40	44	44	44	44	44	44	44	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
24-201-20	MTT ledger 140	5.40		62	62	62	68	68	68	68	68	68	68	68	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	
24-201-10	MTT ledger 257	9.70		40	40	42	44	44	44	44	44	44	44	46	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
24-202-10	MTT diagonal brace 257/200	9.50		18	18	20	20	20	20	20	20	20	20	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
24-202-11	MTT diagonal brace 257/150	10.50		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24-202-12	MTT diagonal brace 257/100	8.80		18	18	19	19	20	20	20	20	20	20	21	22	22	22	22	22	22	22	23	24	24	24	24	24	24	24	24	
24-202-20	MTT diagonal brace 140/200	7.50		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24-202-21	MTT diagonal brace 140/150	6.87		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24-202-22	MTT diagonal brace 140/100	5.91		22	22	22	24	24	24	24	24	24	24	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
24-200-50	MTT steel deck 257/32	18.90		9	9	10	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12	
24-200-20	MTT stairs with landing Alu 257/64 H200	23.20		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24-200-21	MTT stairs with landing Alu 257/64 H150	22.80		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24-200-10	MTT starting stair Alu H100	14.80		9	9	10	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12	
24-200-23	MTT stairs with landing Alu H50	11.20		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24-200-70	MTT stair rail 257 H200	18.10		9	9	10	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12	
24-200-71	MTT stair rail 257 H150	17.00		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24-200-90	MTT stair rail post 130	6.10		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24-201-40	MTT ledger 190 wedge head	7.80		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24-202-85	MTT stair rail adaptor	0.70		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
24-200-80	MTT internal stair rail H100	10.20		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
24-202-50	MTT wall tie 95	3.70		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
24-202-97	MTT swivel nut 1.2x350, galv.	0.40		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
29-412-52	Swivel-joint coupler 48/48	1.20		2456	1484	2517	2646	2700	2727	2760	2889	2933	2960	2993	3122	3176	3204	3237	3366	3409											

MEVA Stair Tower

Stair tower parts list

The material list on this page shows all parts required for the standard MEVA stair tower with the exit at a height between 27.50 m and 35.50 m.

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

For information about the top exit and intermediate exits refer to page MTT-18.

For anchoring details refer to page MTT-8.

Material list for the MEVA stair tower		Total height (m)																		
		Exit height (m)	Component weight (kg)	28.80	29.30	29.80	30.30	30.80	31.30	31.80	32.30	32.80	33.30	33.80	34.30	34.80	35.30	35.80	36.30	36.80
Ref. no.	Description			4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
24-202-60	MTT base spindle 60	3.60																		
24-202-80	MTT base collar	1.40		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
24-202-70	MTT spindle attachment with wedge head	2.00		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
24-200-40	MTT standard 200	10.20		52	56	56	56	56	60	60	60	64	64	64	64	68	68	68	68	68
24-200-41	MTT standard 150	7.80		4			4				4									4
24-200-42	MTT standard 100	5.50		4	4	4	8	4	4	4	4	4	4	8	4	4	4	4	8	4
24-200-43	MTT standard 50	3.20				4			4											4
24-202-76	MTT spigot	1.60		56	56	60	60	60	60	64	64	64	68	68	68	68	72	72	72	72
24-202-90	MTT hinged pin D=12 mm	0.10		224	224	240	240	240	240	256	256	256	272	272	272	272	288	288	288	288
24-201-20	MTT ledger 140	5.40		86	86	92	92	92	92	98	98	98	104	104	104	104	110	110	110	110
24-201-10	MTT ledger 257	9.70		56	58	60	60	60	62	64	64	66	68	68	68	70	72	72	72	72
24-202-10	MTT diagonal brace 257/200	9.50		26	28	28	28	28	30	30	30	32	32	32	32	34	34	34	34	34
24-202-11	MTT diagonal brace 257/150	10.50		1			1				1									1
24-202-12	MTT diagonal brace 257/100	8.80					1				1									1
24-202-20	MTT diagonal brace 140/200	7.50		26	27	28	28	28	29	30	30	31	32	32	32	33	34	34	34	34
24-202-21	MTT diagonal brace 140/150	6.87		2				2			2									2
24-202-22	MTT diagonal brace 140/100	5.91					2				2									2
24-200-50	MTT steel deck 257/32	18.90		30	30	32	32	32	32	34	34	34	36	36	36	36	38	38	38	38
24-200-20	MTT stairs with landing Alu 257/64 H200	23.20		13	14	14	14	14	15	15	15	16	16	16	16	17	17	17	17	17
24-200-21	MTT stairs with landing Alu 257/64 H150	22.80		1				1			1									1
24-200-10	MTT starting stair Alu H100	14.80					1				1									1
24-200-23	MTT stairs with landing Alu H50	11.20				1				1										1
24-200-70	MTT stair rail 257 H200	18.10		13	14	14	14	14	15	15	15	16	16	16	16	17	17	17	17	17
24-200-71	MTT stair rail 257 H150	17.00		1			1				1									1
24-200-90	MTT stair rail post 130	6.10		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24-201-40	MTT ledger 190 wedge head	7.80		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
24-202-85	MTT stair rail adaptor	0.70		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
24-200-80	MTT internal stair rail H100	10.20		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
24-202-50	MTT wall tie 95	3.70		14	14	14	16	16	16	16	16	16	16	16	18	18	18	18	18	18
24-202-97	MTT swivel nut 12x350, galv.	0.40		14	14	14	16	16	16	16	16	16	16	16	18	18	18	18	18	18
29-412-52	Swivel-joint coupler 48/48	1.20		14	14	14	16	16	16	16	16	16	16	16	18	18	18	18	18	18
		Weight (kg)		3437	3470	3599	3653	3681	3713	3842	3886	3914	3946	4076	4130	4157	4190	4319	4363	4390

MEVA Stair Tower

Stair tower parts list

The material list on this page shows all parts required for the standard MEVA stair tower with the exit at a height between 36.00 m and 44.00 m.

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

For information about the top exit and intermediate exits refer to page MTT-18.

For anchoring details refer to page MTT-8.

Material list for the MEVA stair tower		Total height (m)	
		Exit height (m)	Component weight (kg)
Ref. no.	Description	37.30	36.00
		37.80	36.50
		38.30	37.00
		38.80	37.50
		39.30	38.00
		39.80	38.50
		40.30	39.00
		40.80	39.50
		41.30	40.00
		41.80	40.50
		42.30	41.00
		42.80	41.50
		43.30	42.00
		43.80	42.50
		44.30	43.00
		44.80	43.50
		45.30	44.00
24-202-60	MTT base spindle 60	4	4
24-202-80	MTT base collar	4	4
24-202-70	MTT spindle attachment with wedge head	4	4
24-200-40	MTT standard 200	72	72
24-200-41	MTT standard 150		
24-200-42	MTT standard 100	4	4
24-200-43	MTT standard 50	4	4
24-202-76	MTT spigot	72	76
24-202-90	MTT hinged pin D=12 mm	288	304
24-201-20	MTT ledger 140	110	116
24-201-10	MTT ledger 257	74	76
24-202-10	MTT diagonal brace 257/200	36	36
24-202-11	MTT diagonal brace 257/150		1
24-202-12	MTT diagonal brace 257/100		1
24-202-20	MTT diagonal brace 140/200	35	36
24-202-21	MTT diagonal brace 140/150		2
24-202-22	MTT diagonal brace 140/100		2
24-200-50	MTT steel deck 257/32	38	40
24-200-20	MTT stairs with landing Alu 257/64 H200	18	18
24-200-21	MTT stairs with landing Alu 257/64 H150		1
24-200-10	MTT starting stair Alu H100		1
24-200-23	MTT stairs with landing Alu H50		1
24-200-70	MTT stair rail 257 H200	18	18
24-200-71	MTT stair rail 257 H150		1
24-200-90	MTT stair rail post 130		1
24-201-40	MTT ledger 190 wedge head		1
24-202-85	MTT stair rail adaptor		1
24-200-80	MTT internal stair rail H100		1
24-202-50	MTT wall tie 95		1
24-202-97	MTT swivel nut 12x350, galv.		1
29-412-52	Swivel-joint coupler 48/48		1
	Weight (kg)	4423	4522
		4606	4634
		4667	4796
		4839	4867
		4900	4900
		5029	5083
		5110	5143
		5272	5316
		5343	5376

MEVA Stair Tower

Stair tower material list

The material list on this page shows all parts required for the standard MEVA stair tower with the exit at a height between 44.50 m and 50.00 m.

The access to the building or structure is job-built. If access is to be with system parts, this must be planned separately.

For information about the top exit and intermediate exits refer to page MTT-18.

For anchoring details refer to page MTT-8.

Material list for the MEVA stair tower		Total height (m)	45.80	46.30	46.80	47.30	47.80	48.30	48.80	49.30	49.80	50.30	50.80	51.30
Ref. no.	Description	Exit height (m)	44.50	45.00	45.50	46.00	46.50	47.00	47.50	48.00	48.50	49.00	49.50	50.00
		Component weight (kg)												
24-202-60	MTT base spindle 60	3.60	4	4	4	4	4	4	4	4	4	4	4	4
24-202-80	MTT base collar	1.40	4	4	4	4	4	4	4	4	4	4	4	4
24-202-70	MTT spindle attachment with wedge head	2.00	4	4	4	4	4	4	4	4	4	4	4	4
24-200-40	MTT standard 200	10.20	88	88	88	92	92	92	92	96	96	96	96	100
24-200-41	MTT standard 150	7.80												
24-200-42	MTT standard 100	5.50	4	8	4	4	4	8	4	4	4	8	4	4
24-200-43	MTT standard 50	3.20	4											
24-202-76	MTT spigot	1.60	92	92	92	92	96	96	96	96	100	100	100	100
24-202-90	MTT hinged pin D=12 mm	0.10	368	368	368	368	384	384	384	384	400	400	400	400
24-201-20	MTT ledger 140	5.40	140	140	140	140	146	146	146	146	152	152	152	152
24-201-10	MTT ledger 257	9.70	92	92	92	94	96	96	96	98	100	100	100	102
24-202-10	MTT diagonal brace 257/200	9.50	44	44	44	46	46	46	46	48	48	48	48	50
24-202-11	MTT diagonal brace 257/150	10.50												
24-202-12	MTT diagonal brace 257/100	8.80						1						1
24-202-20	MTT diagonal brace 140/200	7.50	44	44	44	45	46	46	46	47	48	48	48	49
24-202-21	MTT diagonal brace 140/150	6.87			2				2					
24-202-22	MTT diagonal brace 140/100	5.91						2				2		
24-200-50	MTT steel deck 257/32	18.90	48	48	48	48	50	50	50	50	52	52	52	52
24-200-20	MTT stairs with landing Alu 257/64 H200	23.20	22	22	22	23	23	23	23	24	24	24	24	25
24-200-21	MTT stairs with landing Alu 257/64 H150	22.80			1				1					1
24-200-10	MTT starting stair Alu H100	14.80						1				1		
24-200-23	MTT stairs with landing Alu H50	11.20	1				1				1			
24-200-70	MTT stair rail 257 H200	18.10	22	22	22	23	23	23	23	24	24	24	24	25
24-200-71	MTT stair rail 257 H150	17.00			1				1					1
24-200-90	MTT stair rail post 130	6.10	1	1	1	1	1	1	1	1	1	1	1	1
24-201-40	MTT ledger 190 wedge head	7.80	2	2	2	2	2	2	2	2	2	2	2	2
24-202-85	MTT stair rail adaptor	0.70	2	2	2	2	2	2	2	2	2	2	2	2
24-200-80	MTT internal stair rail H100	10.20												
24-202-50	MTT wall tie 95	3.70	22	24	24	24	24	24	24	24	24	26	26	26
24-202-97	MTT swivel nut 12x350, galv.	0.40	22	24	24	24	24	24	24	24	24	26	26	26
29-412-52	Swivel-joint coupler 48/48	1.20	22	24	24	24	24	24	24	24	24	26	26	26
		Weight (kg)	5505	5559	5587	5620	5749	5792	5820	5853	5982	6036	6064	6096

MEVA Stair Tower

Scaffolding for rebar work

Using the individual parts of the MEVA stair tower, it is also possible to build scaffolding for rebar work (Fig. 25.1).

Like the stair tower, assembly is performed according to pages MTT-9 to -14. The only exceptions are that MTT ledger 140 is replaced by MTT ledger 109 and the stairs with landing are replaced by MTT access hatch 257. The access ladder is integrated into the access hatch.

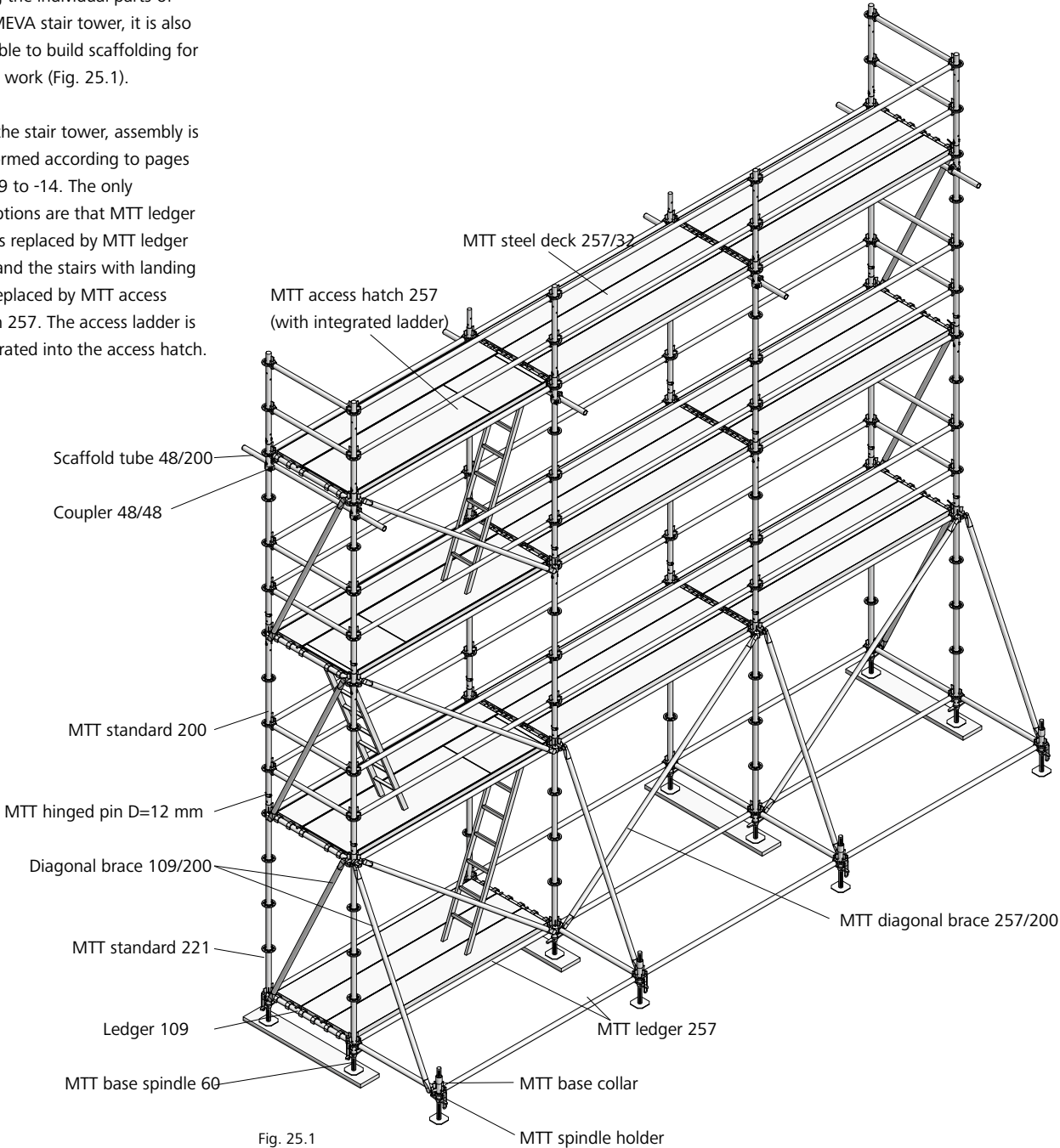


Fig. 25.1

Material list for scaffolding for rebar work

The material list for scaffolding for rebar work (Fig. 26.4) shows all parts required for the standard application.

The number of parts is shown for three variants:

- Complete scaffolding as shown (Fig. 26.1)
- First field (Fig. 26.2)
- Lower storey (Fig. 26.3)

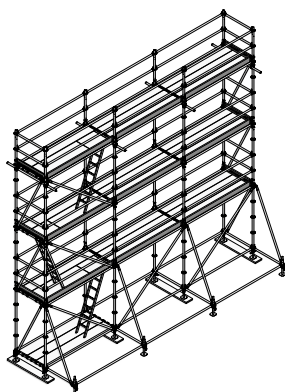


Fig. 26.1

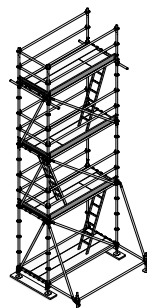


Fig. 26.2

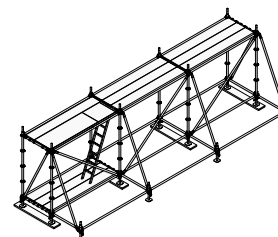


Fig. 26.3

Material list for scaffolding for rebar work			Assembly variant		
Ref. no.	Description	Component weight (kg)	Complete scaffolding (Fig. 26.1)	Only the first field (Fig. 26.2)	Only the lower storey (Fig. 26.3)
24-201-25	MTT ledger 109	4.00	32	16	12
24-201-10	MTT ledger 257	8.50	63	21	15
24-202-80	MTT base collar	1.41	4	2	4
24-202-72	MTT spindle holder	0.80	12	6	12
24-200-42	MTT standard 100	5.50	8	4	-
24-200-40	MTT standard 200	10.20	16	8	-
24-200-45	MTT base standard 221	11.50	8	4	8
24-200-88	MTT toe board 109	2.50	6	3	-
24-200-86	MTT toe board 257	5.70	9	3	-
24-202-15	MTT diagonal brace 109/200	7.00	10	5	6
24-202-10	MTT diagonal brace 257/200	9.50	5	3	3
24-200-50	MTT steel deck 257/32	18.90	24	6	10
24-200-60	MTT access hatch 257	26.50	3	3	1
29-412-23	Scaffold tube 48/200	9.40	4	2	-
29-412-52	Swivel-joint coupler 48/48	1.20	8	4	-
24-202-90	MTT hinged pin D=12 mm	0.10	24	12	8
24-202-60	MTT base spindle 60	3.60	12	6	12
Weight (kg)			1788	727	613

Table 26.4

MEVA Stair Tower

Transport instructions

The following must be observed for road transport: Use one ratchet strap per metre of cargo. This means that at least 14 ratchet straps are required for a fully loaded truck with a trailer length of 13.60 m.

To transport the stair tower, two straps are required for each stacking unit width (Fig. 27.1).

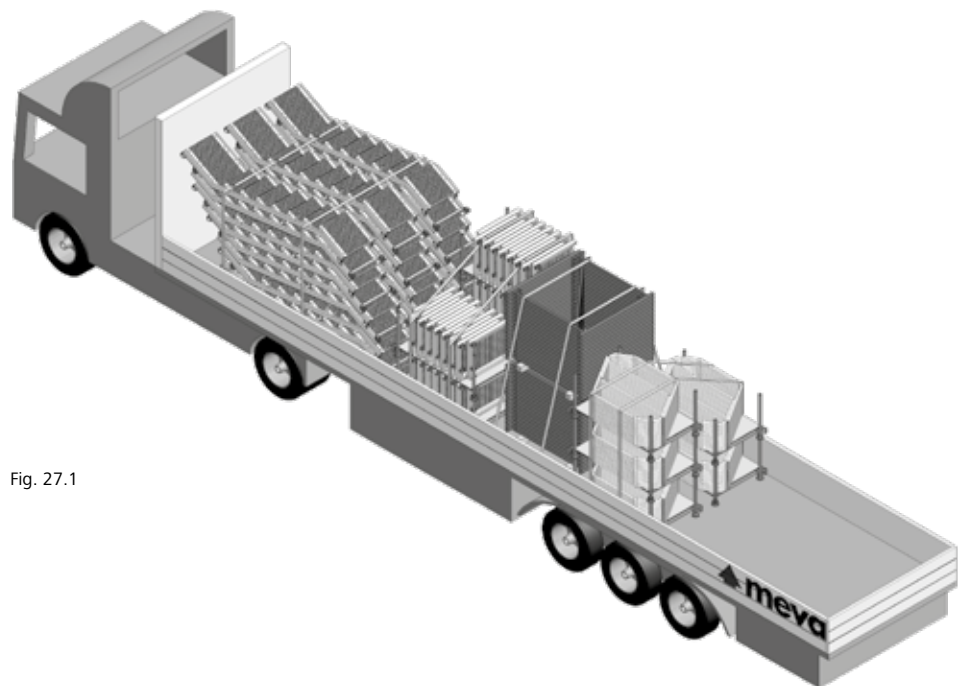


Fig. 27.1

Working and Safety Scaffolds

according to standards DIN EN 12811 / DIN 4420

Characteristics and Release Sheet

Important: See note on p. MITT-2 before filling in and using this form outside Germany.

Contractor: _____ Construction site: _____
 Address: _____ Client: _____
 Authorised person: _____
 Used from/to date: _____
 Phone: _____

Working scaffold (acc. to standard DIN EN 12811) for use

at facades in rooms as mobile scaffold

Safety scaffold (acc. to standard DIN 4420) for use as

mobile scaffold safety scaffold (roof) canopy stair tower

Lining

none canvas cover net

Load classes

2 (150 kg/m²) 3 (200 kg/m²) 4 (300 kg/m²) __ (____ kg/m²)

In a scaffold field, the total working load of all scaffold levels upon each other must not exceed the selected or entered work load.

Width classes

W06 W09 W ____ SW ____

Restrictions of use or prohibited uses:

- Any changes to the assembled scaffold only to be made by the contractor.
- When storing material on the deck, make sure to leave enough walking area on the deck.
- Do not store any material on safety scaffolds and canopies.
- Do not overload scaffold decks and fields.
- Do not simultaneously work in areas located above each other.

- Only use existing ladders and stairs when moving up or down.
- Keep access hatches of platforms and decks closed all the time.
- Do not jump onto the deck or planking.
- Observe and follow the technical manuals.
- Be aware of the risk of falling down in the gap between scaffold and building or structure.
- Do not endanger the scaffold's stability with excavation or pits.
- Children must not enter the platform or scaffold.

Working and Safety Scaffolds Inspection Sheet

according to German guidelines §§ 10 and 11 concerning operational safety



	Inspection	In order		n/a
		Yes	No	
Scaffold parts	Not damaged (visual check)			
Stability (against collapse)	Bearing capacity of ground			
	Base spindle – length / adjustment range			
	Bracing / Diagonal braces			
	Longitudinal ledgers – at foot level			
	Lattice girder – bracing			
Planking	Anchoring – done according to assembly instructions			
	Scaffold area – complete area with planking / planking secured against tilting and uplifting			
	System planking – planking also on brackets			
	Corners – full-width planking around corners			
	Scaffold boards – profile, support			
	Gaps and openings – between planks			
	Side protection – including protection at front ends			
Safety at work and operational safety	Distance from wall ≤ 0,30 m			
	Side protection installed inside scaffold			
	Access, stairs, ladders – ≤ 50 m			
	Stair tower, scaffold stairs, ladder scaffold (Movable) Ladder ≤ 5 m			
	Protective wall			
	Canopy			
	Traffic protection – lighting			
	Wheels or castors			
	Additional weight / Wide assembly			
	Attached and visible at all access areas of scaffold			
Mobile scaffolds				
Characteristics and Release sheet				
Exclusion zones	Areas under construction fenced in and marked with "no trespassing" signs			

Notes and comments:

Scaffold inspected by authorised person of contractor

Attach these sheets to the scaffold only if the scaffold has no defects

Inspection date

Name and signature of authorised person

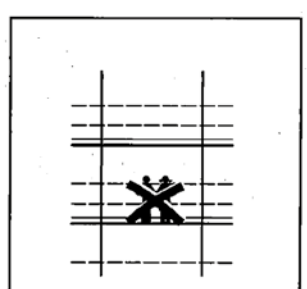
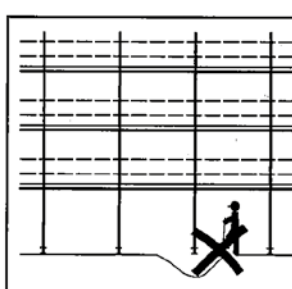
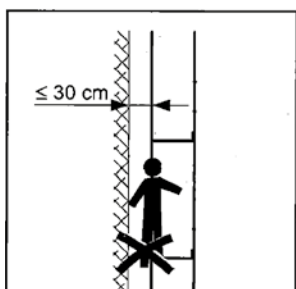
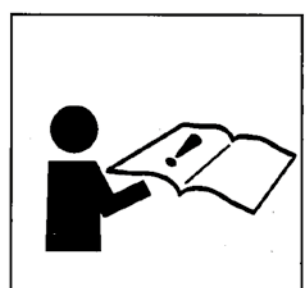
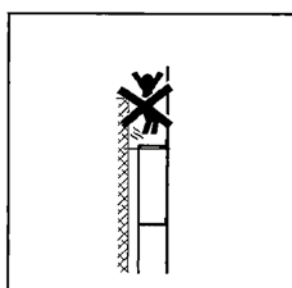
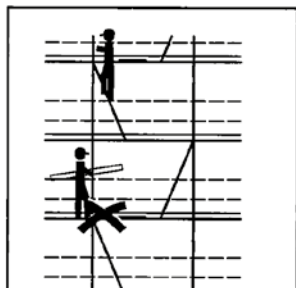
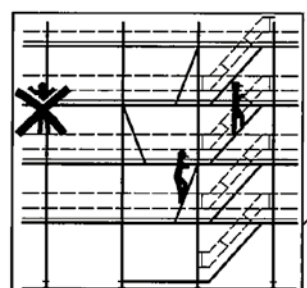
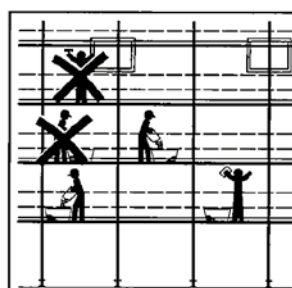
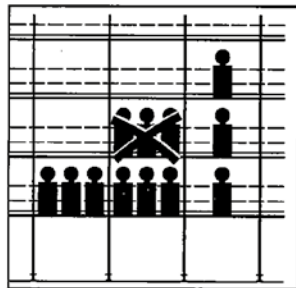
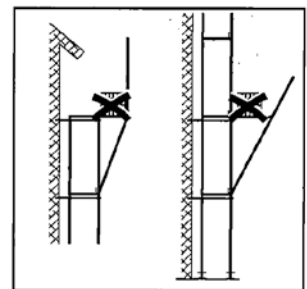
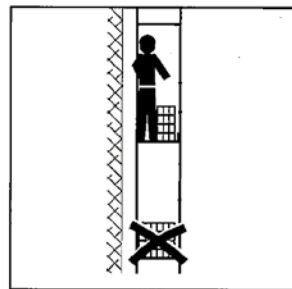
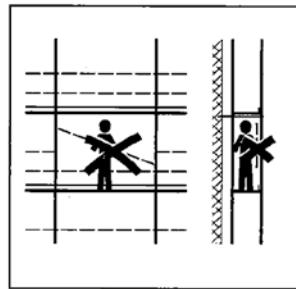
Date

Name and signature of authorised person / contractor

MEVA Stair Tower

Instructions for use

- Modification to the scaffold must only be performed by the scaffold assembly worker.
- Always ensure that the access to the scaffold deck is wide enough when storing materials.
- Do not store material on safety-catch scaffolds and safety roofs.
- Do not overload scaffold decks and scaffold bays.
- Workplaces must not be located one on top of the other at the same time.
- Use the available ladders or steps to access and vacate the scaffold.
- Always keep the access hatch cover closed.
- Do not jump onto the scaffold deck.
- Observe the Technical Instruction Manual.
- Pay attention to the risk of falling between the scaffold and the building.
- Do not endanger the stability of the scaffold through excavation work.
- Children are not permitted on the scaffold.



MEVA Stair Tower

Services

Cleaning

The stair tower is cleaned professionally upon return.

Cleaning and reconditioning of wall formwork

The formwork is cleaned using industrial equipment.

Reconditioning is carried out as follows: The frames are checked and, if necessary, repaired, coated and provided with a new facing.

As long as the formwork equipment still has its full load capacity, correct dimensions and is fully functional, reconditioning will always be a more economical solution than purchasing new formwork. Please note that the cleaning and reconditioning service is not available in all countries in which MEVA does business.

Rentals

As we have a comprehensive range of equipment in stock, we offer our customers the option of renting supplementary material at peak times. The MEVA logistics centre guarantees rapid delivery throughout Europe. We also give prospective customers the chance to test MEVA formwork so they can see its benefits for themselves in actual use.

RentalPlus

For rental formwork and equipment MEVA will bear all secondary costs that occur after return (excludes losses and write-offs) for a flat-rate fee. For the customer this means: Costing certainty instead of additional charges, an earlier end of the rental period and thus lower rental costs because you save the time required for cleaning and repairs.

Formwork drawings

Our application engineers worldwide work with CAD systems. This ensures that you always receive optimum formwork solutions and practice-oriented formwork and work cycle plans.

Special solutions

We can help with special parts, custom-designed for your project, to supplement our standard formwork systems.

Structural calculations

Generally, this is only necessary for applications such as single-sided formwork where the anchor parts are embedded in the foundation or the base slab. On request, we can perform structural calculations for such applications at an additional charge.

Formwork seminars

To ensure that all our products are used properly and efficiently, we offer formwork seminars. They provide our customers with a good opportunity to keep themselves up to date and to benefit from the know-how of our engineers.

