



Shoring System MT 60

Technical Instruction Manual



Product Features

The MT 60 shoring system is a square load tower sized 1.70 m by 1.70 m and allows for safe work in great heights. Fall down accidents are avoided while work performance is increased. The maximum load capacity is 60 kN per tower post.

Achieve any tower height with only few parts

By using only few different standard parts, the tower can be assembled to achieve almost any height. With the head spindle adjustable by up to 62 cm and the base spindle by up to 44 cm, only 3 frame heights (100, 75 and 50 cm) are sufficient to assemble almost any tower height.

Safe assembly on the ground

The tower is safely assembled on the ground, either in vertical or horizontal position. The scaffold platforms are self-locking and thus can also be assembled with the tower in horizontal position.

Long life cycle, few cleaning and maintenance required

All parts are hot-dip galvanized, this results in a long life cycle as well as minimized cleaning and maintenance efforts.

Abbreviations, measurements, figures and tables

The abbreviation MT is used for the MT 60 shoring system. Any further abbreviations are explained where they are used the first time.

Measurements: This manual uses the metric system and thus m (for metre), cm (for centimetre) and mm (for millimetre). Dimensions without a measure are in cm.

The page numbers in this manual start with MT. 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.



Please observe

This Technical Instruction Manual contains information, instructions and hints describing 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. When using our products the federal, state and local codes and regulations must be observed. Many of the details shown do not illustrate the wall formwork system in the ready-to-pour condition as to the aforementioned safety regulations. Please adhere to this manual when applying the equipment described here. Deviations require engineering calculations and analysis to guarantee safety.

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 working area and protection against falling down
- Pick points for panel transport by crane. With regard to panel transport, please observe this manual. Any deviation will require a static proof.

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

Attention: Never wax or oil assembly locks.

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Product overview

The tower is fast and safe to install.

- The few different parts can always be assembled from a safe platform.
- Only 4 frames are required per level.
- Each frame has an integrated ladder, a crane eye and a self-locking wedge connection.
- Frame 100 MT weighs only 15.6 kg, all other parts weigh less. This eases assembly work.
- The tower is compatible with slab formwork MevaDec and MevaFlex.
- Each post has 60 kN load capacity.
- The entire tower can be wheeled from position to position if it does not have more than 5 levels.

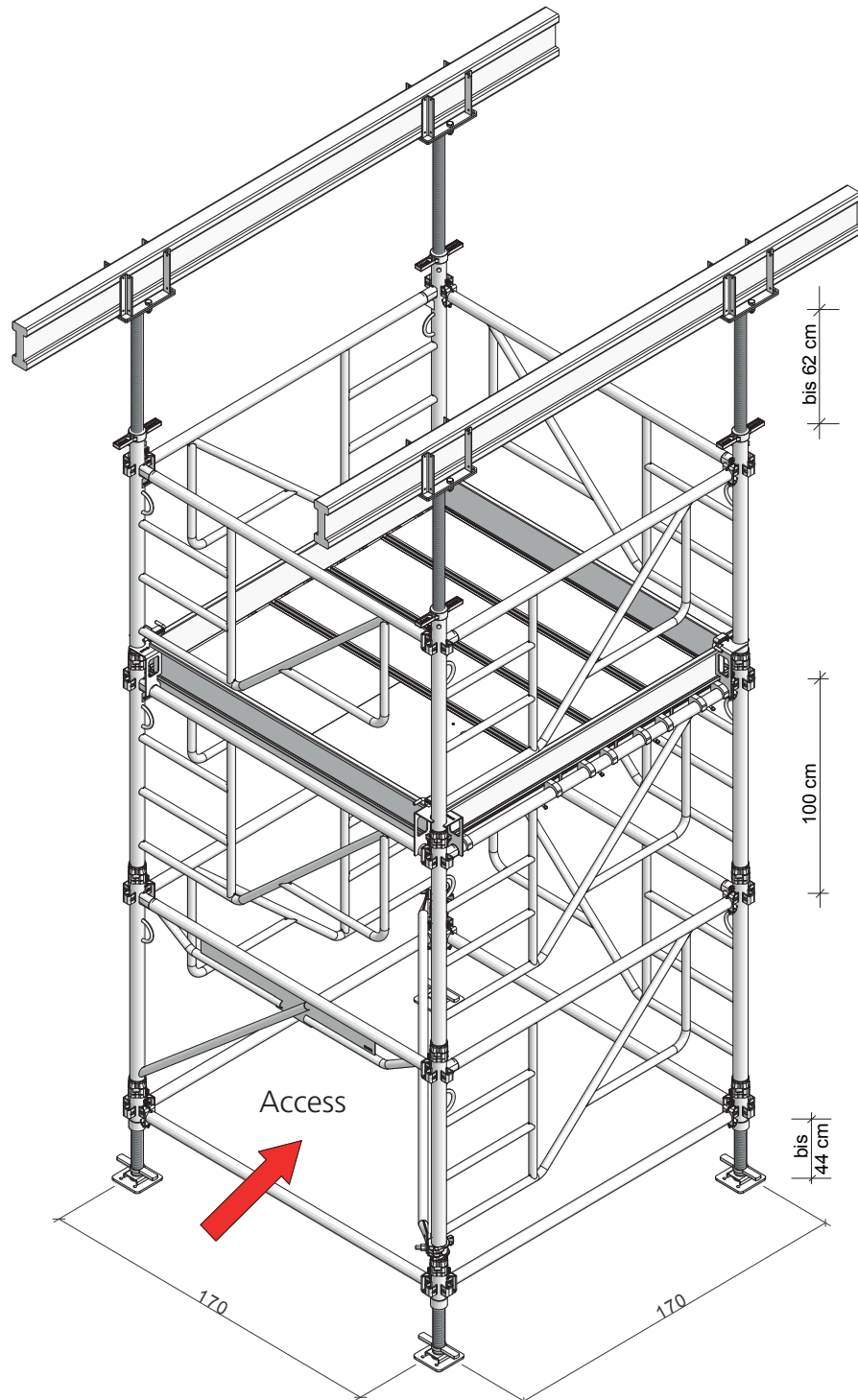


Fig. 4.1 Shoring system MT 60

Product overview

The tower is always assembled with the same standard parts no matter how high it is and what it is used for. Yet different accessories can be mounted to the head spindles to use the tower to support slab formwork or concrete beams or prefab parts.

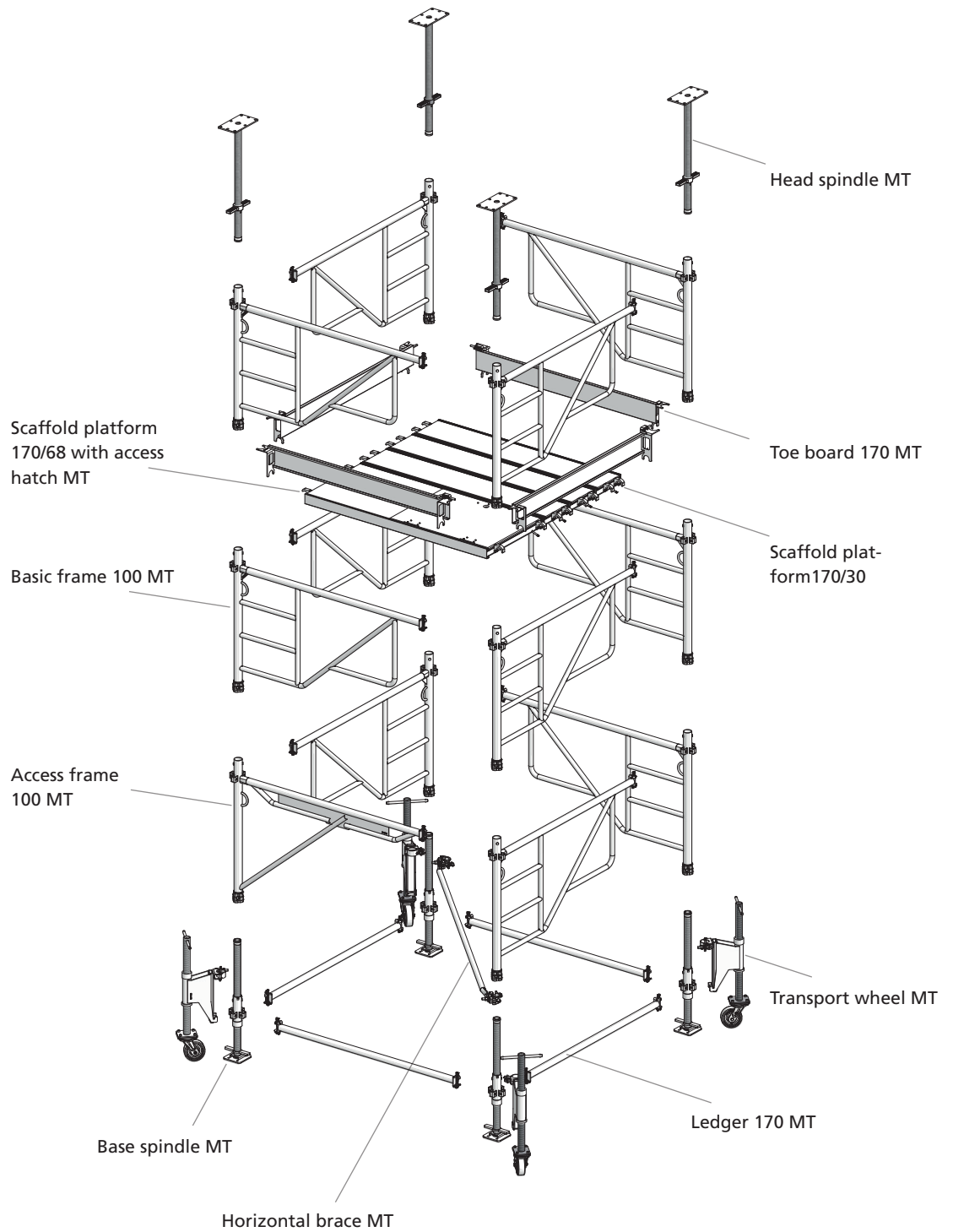


Fig. 5.1

Integrated safety features

The shoring system is equipped with a series of features and functions that maximize safety when assembling, using and transporting the tower.

Detail 6.1.A

The two connectors in the corner area can be used for accessories or other parts.

Detail 6.1.B

Each basic frame has a crane eye.

Detail 6.1.C

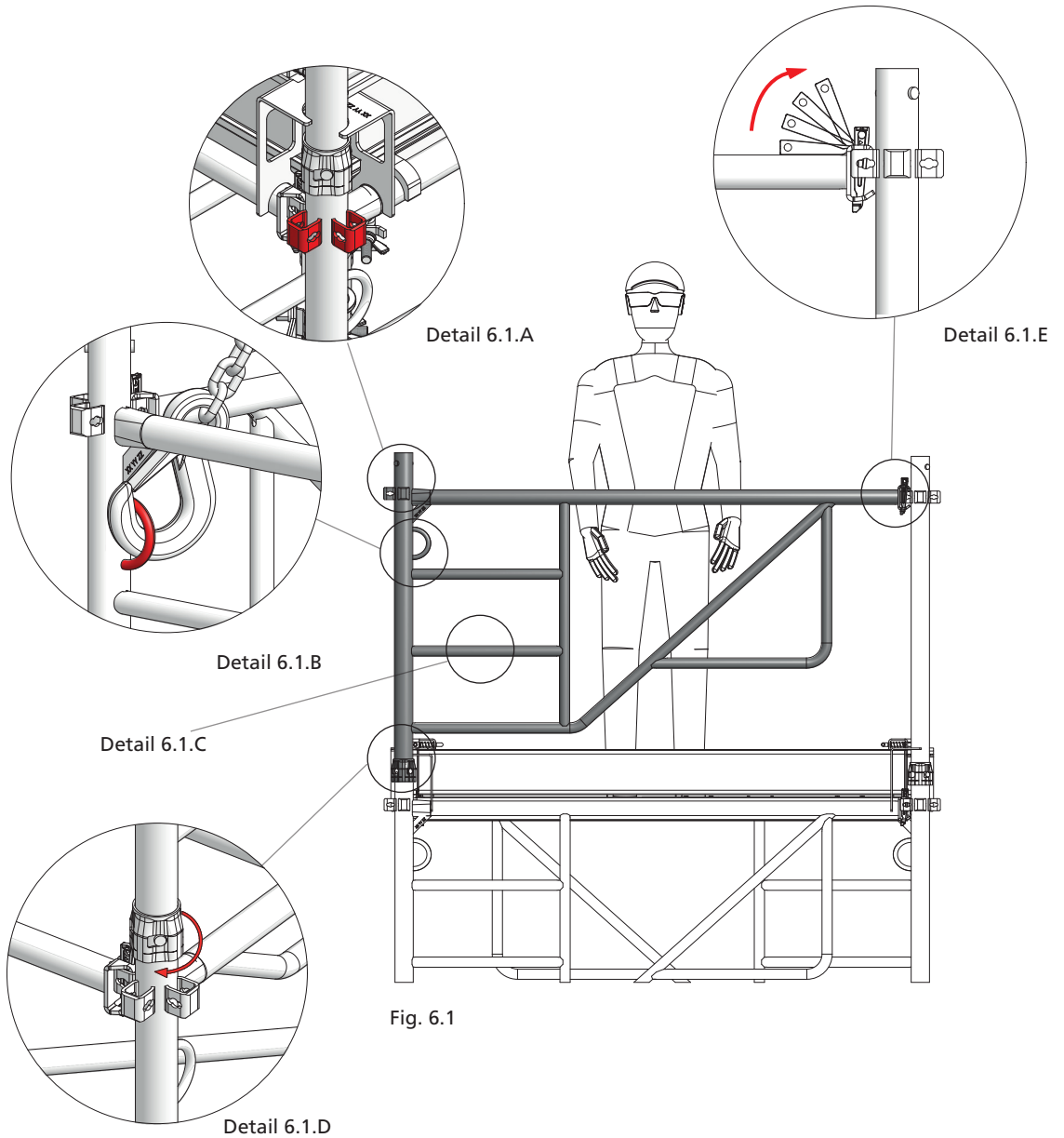
Integrated ladder access.

Detail 6.1.D

Self-locking mechanism at the connecting point of the MT frames. The high-tensile connection allows the tower to be crane-lifted.

Detail 6.1.E

Self-locking wedge connection.



Scaffold platform

The scaffold platform is made of wooden planks inside an aluminium frame. The maximum load capacity is 200 kg/m².

Note that scaffold platforms are required on every other tower level so workers can safely ascend and descend to and from the tower.

The following scaffold platforms are available (the figures indicate their length and width):

- 170/68 with access hatch (Fig. 7.1)
- 170/30 and 220/30 (Fig. 7.2)
- 170/52,5 and 220/52,5 (Fig. 7.3)

Installation

The side of the scaffold platform shown in Detail 7.1.A is plugged onto the frame MT 100. The self-locking mechanism on the other end of the scaffold platform encloses the frame on that end (Detail 7.1.B). The access hatch (Detail 7.1.C) closes automatically. All scaffold platforms have a grab handle on their underside (Detail 7.2).

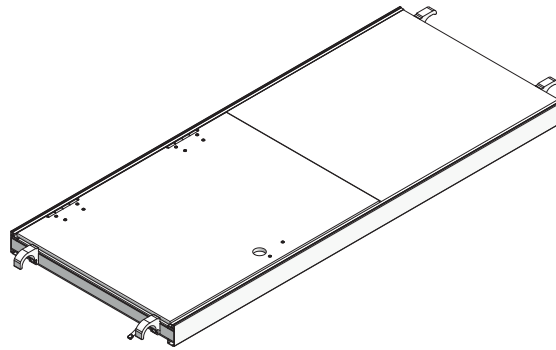
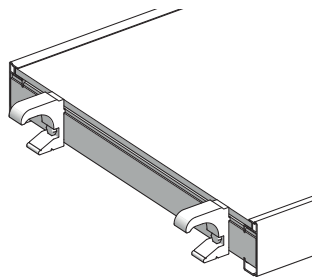
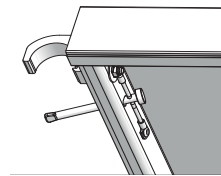


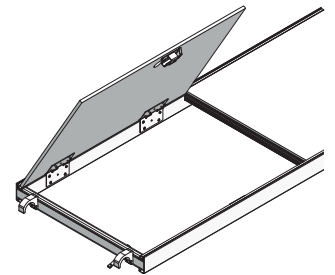
Fig. 7.1



Detail 7.1.A



Detail 7.1.B



Detail 7.1.C

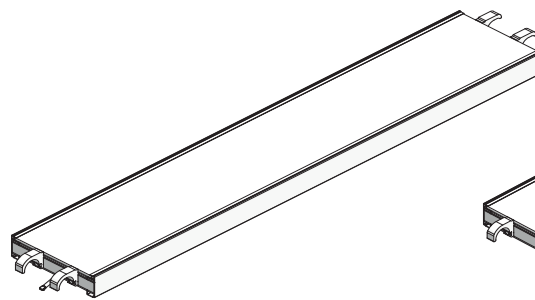


Fig. 7.2

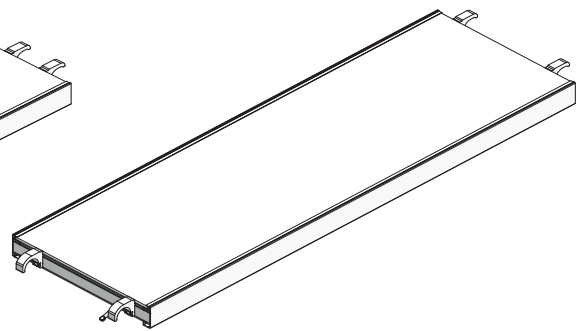
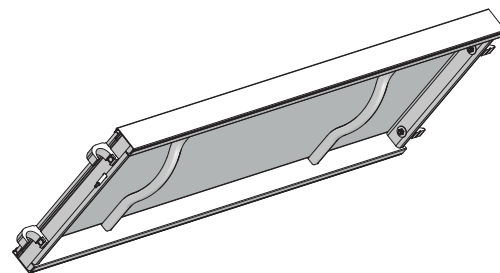


Fig. 7.3



Detail 7.2

Description	Ref. No.
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/52.5.....	29-131-35
170/30.....	29-131-40
220/52.5.....	29-131-10
220/30.....	29-131-15

Basic tower 170 x 170 – Vertical assembly

This page and the following ones show the vertical assembly of a standard tower with 3 levels. For a description of the horizontal assembly see page MT-14. For height configurations of towers with more than 3 levels refer to pages MT-25 through MT-27.

Ground

Check that the ground is stable enough to support the tower.

Level 0

1. Start the assembly at the highest point.
2. Place planks or another load-distributing support for the base spindles.
3. Place the 4 base spindles MT on the planks or support.
4. Connect the 4 ledgers 170 MT with their integrated wedges to the base spindles MT (Fig. 8.1).
5. Adjust the entire assembly horizontally by adjusting the base spindles MT if and where necessary. Make sure not to exceed the maximum spindle length of 44 cm.
6. Tighten the wedges with a few hammer blows (Fig. 8.1).

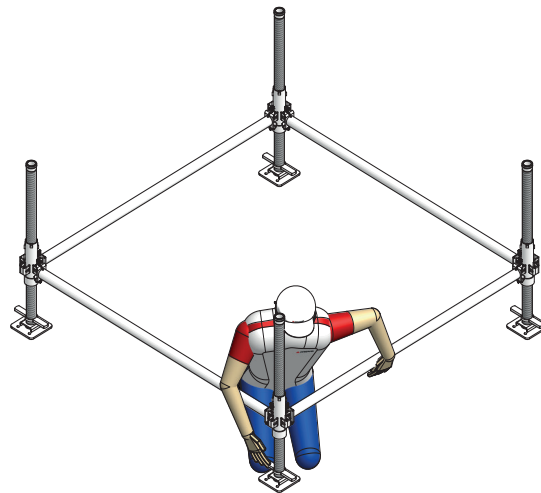


Fig. 8.1

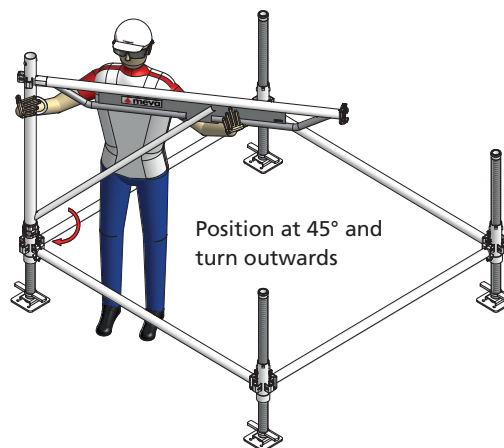


Fig. 8.2

Level 1 (Fig. 8.2)

7. Standing on the inside, plug the access frame 100 MT onto the base spindle at an angle of 45° and turn it outwards until it locks.

Description	Ref. No.
Base spindle MT.....	29-129-50
Ledger 170 MT.....	29-122-10
Access frame MT 100..	29-121-10
Basic frame 100 MT....	29-120-10

Basic tower 170 x 170 – Vertical assembly

8. Attach the frames 100 MT to the other spindles the way you attached the access frame in Step 7 (Fig. 9.1).
 9. Attach a horizontal brace MT between two frames MT 100 to make sure the entire frame construction is rectangular (Fig. 9.2).
 10. Suspend the following scaffold platforms for level 0 at the ledgers 170 MT:

- 1 scaffold platform 170/68 with access hatch
- 3 scaffold platforms 170/30

Important

Always suspend the scaffold platform 170/68 with access hatch in a way that the access hatch opens to frame 100 MT and you can climb up or down the ladder that is integrated in the frame.

Level 2

11. Standing on the scaffold platform of level 0, suspend the frames 100 MT for level 2 (Fig. 9.3).

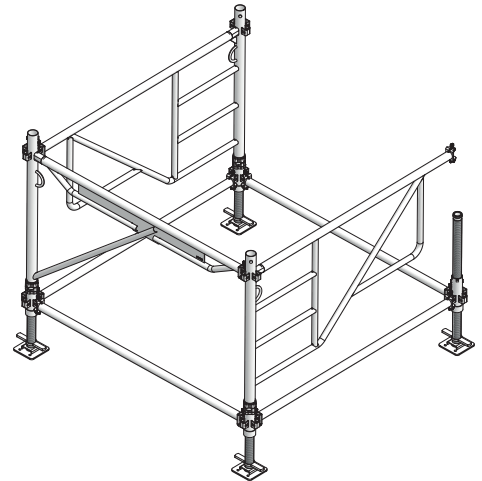


Fig. 9.1

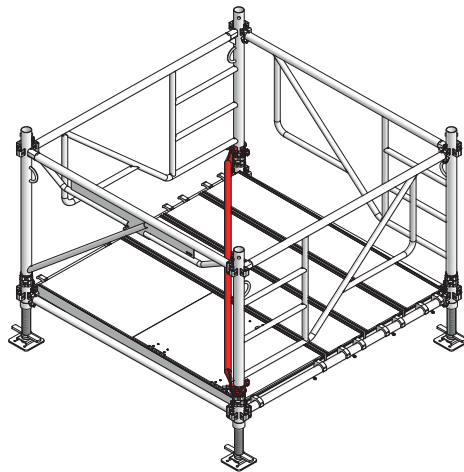


Fig. 9.2

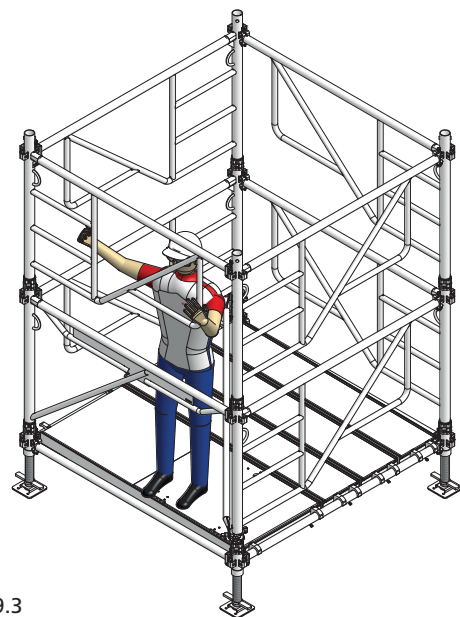


Fig. 9.3

Description	Ref. No.
Basic frame 100 MT ...	29-120-10
Horizontal brace MT ...	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/30.....	29-131-40

Basic tower 170 x 170 – Vertical assembly

12. Suspend the scaffold platforms 170/30 for level 1 (Fig.10.1).
13. Ascend to level 1 and suspend the scaffold platform 170/68 with access hatch (Fig.10.2)

Important

Always suspend the scaffold platform 170/68 with access hatch in a way that the access hatch opens to frame 100 MT and you can climb up or down the ladder that is integrated in the frame.

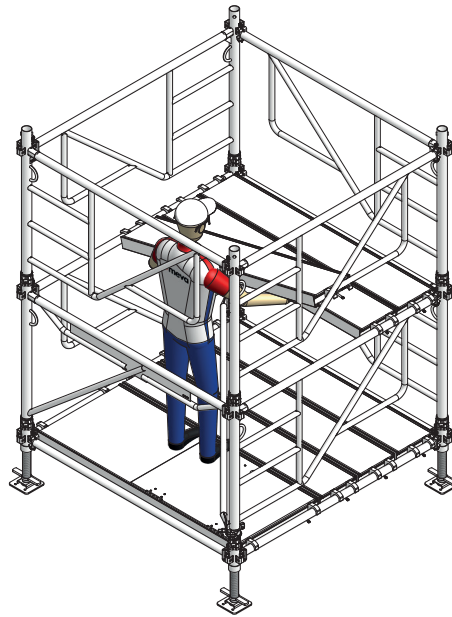


Fig. 10.1

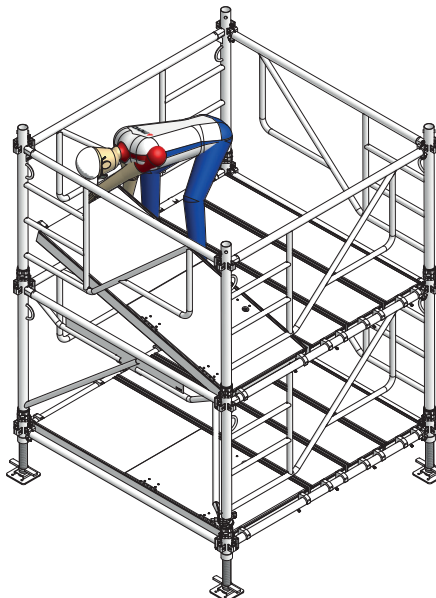


Fig. 10.2

Description	Ref. No.
Basic frame 100 MT.....	29-120-10
Horizontal brace MT.....	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/30.....	29-131-40

Basic tower 170 x 170 – Vertical assembly

Level 3

- 14. Standing on the scaffold platform of level 1, install the frames 100 MT for level 3 (Fig. 11.1)
- 15. Remove the scaffold platform with access hatch from level 1 and install it on level 2 (Fig. 11.2).
- 16. Descend to level 0.

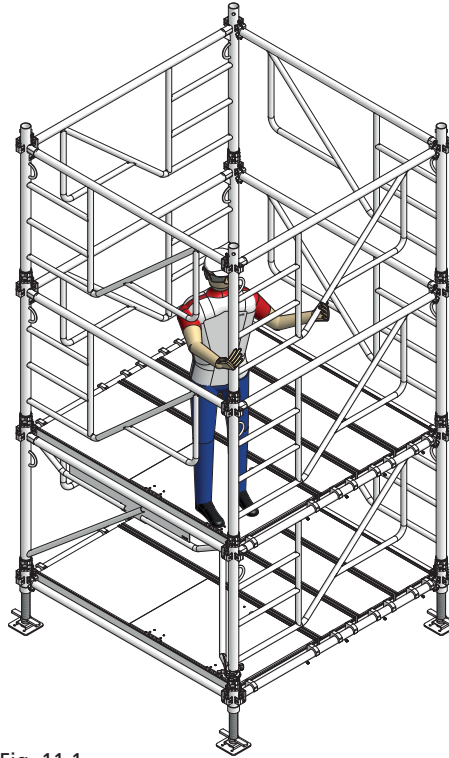


Fig. 11.1

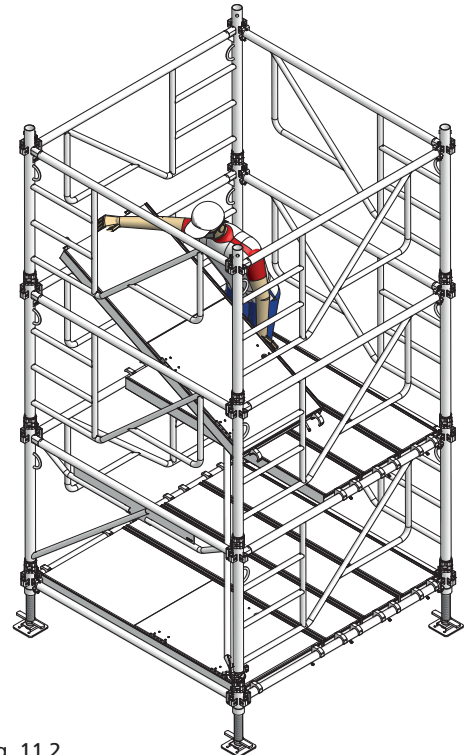


Fig. 11.2

Description	Ref. No.
Basic frame 100 MT	29-120-10
Horizontal brace MT ...	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/30.....	29-131-40

Basic tower 170 x 170 – Vertical assembly

17. Remove the from level 1 and install them on level 2 (Fig.12.1).
18. Climb up to level 2 using the ladder integrated in frame MT 100 (Fig.12.2).

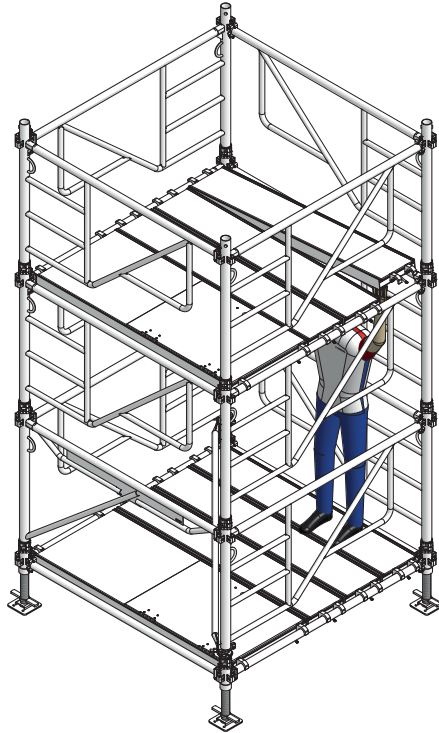


Fig. 12.1

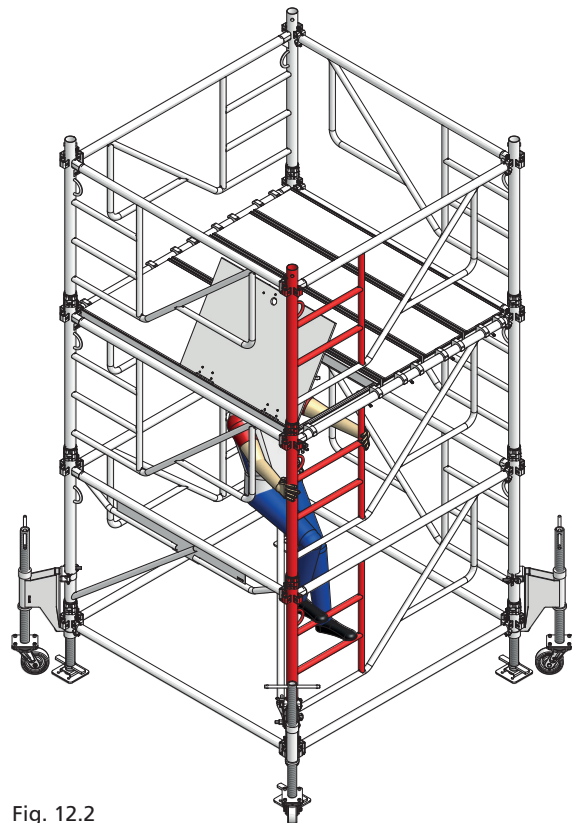


Fig. 12.2

Description	Ref. No.
Basic frame 100 MT.....	29-120-10
Horizontal brace MT.....	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/30.....	29-131-40

Basic tower 170 x 170 – Vertical assembly

19. Plug the 4 head spindles MT into the frame posts and adjust them (Detail 13.1.A)
20. Toe boards are always installed at the highest working platform (Fig.13.1). Attach the toe boards 170 MT as shown in Fig. Detail13.1.B.
21. Attach the 4 transport wheels MT to the base spindles MT and to the frames MT of level 1 (Fig.13.2 and Detail 13.2)

Important
Plankings for working platforms need to be installed on every second level to allow for a safe ascent and descent.

Attention
Depending on its height and the load it is exposed to, e.g. wind load, the tower needs to be anchored to an existing building. Several towers need to be connected with diagonal braces and ledgers. Follow the details provided by the stress analyst.

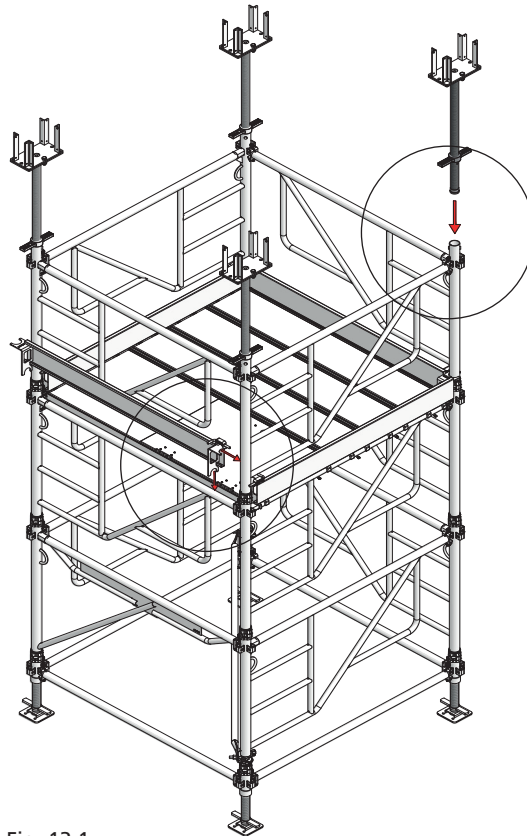
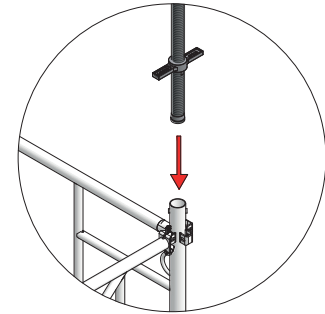
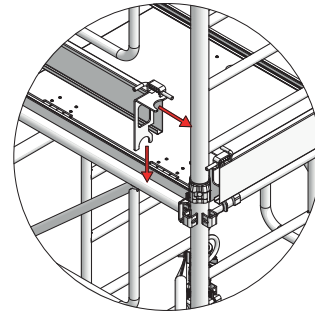


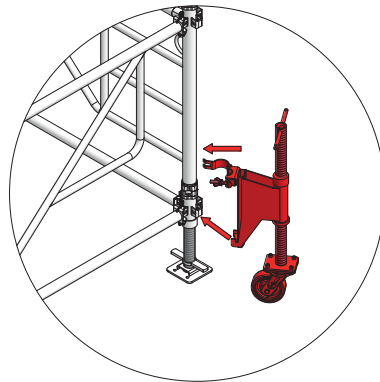
Fig. 13.1



Detail 13.1.A



Detail 13.1.B



Detail 13.2

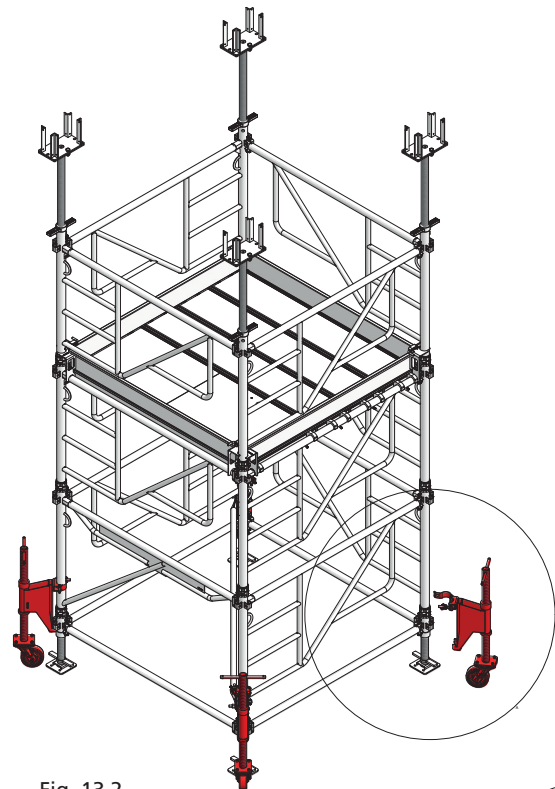


Fig. 13.2

Description	Ref. No.
Head spindle MT	29-129-55
Toe board 170 MT	29-126-15
Transport wheel MT	29-129-90

Basic tower 170 x 170 – Horizontal assembly flat on the ground

The horizontal assembly on the ground is done with the same material and in the same way as the vertical assembly. For further details see the cross-references to the vertical assembly section.

Ground

The ground must be flat to allow for a trouble-free assembly (Fig. 14.1).

Level 0 and 1 (vertical assembly)

1. Assemble level 0 and 1 with frames 100 MT and an access frame as described on pages MT-8 and MT-9.
2. Turn the assembled construction by 90° (Fig. 14.1). Level 2 and all other levels are now assembled and added horizontally and the assembled tower will be erected when all levels have been added.

Level 2 until final height (horizontal assembly)

3. Assemble the frames for all other levels – always at an angle of 45° and from the inside to the outside (Fig. 14.2).
4. Install scaffold platforms including access hatch on every other level (Fig. 14.3). Since the scaffold platforms are self-locking, they will not tilt or fall off.
5. Attach the head spindles on the last tower level (Fig. 14.4).

Erecting the tower

1. Attach 4-rope crane slings to the crane eyes of the top frame MT (Fig. 14.5)
2. Erect the tower and crane-lift it to its place of use.
3. Align the tower horizontally and vertically.

Attention

Depending on its height and the load it is exposed to, e.g. wind load, the tower needs to be anchored to an existing building. Several towers need to be connected with diagonal braces and ledgers. Follow the details provided by the stress analyst.

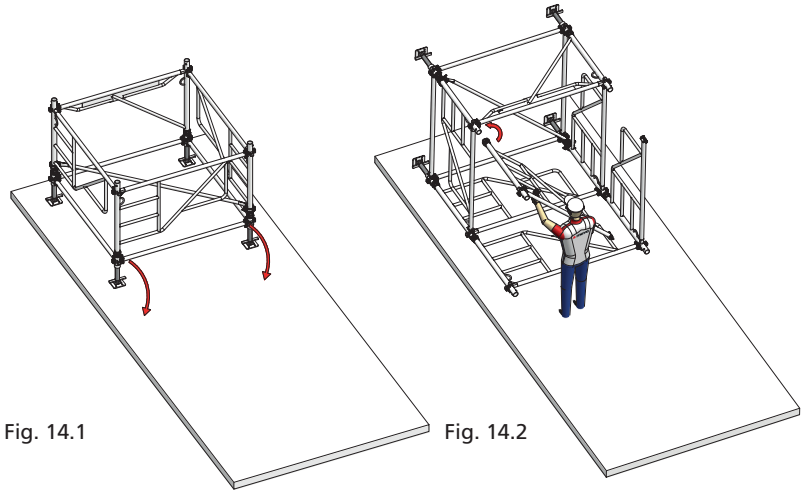


Fig. 14.1

Fig. 14.2

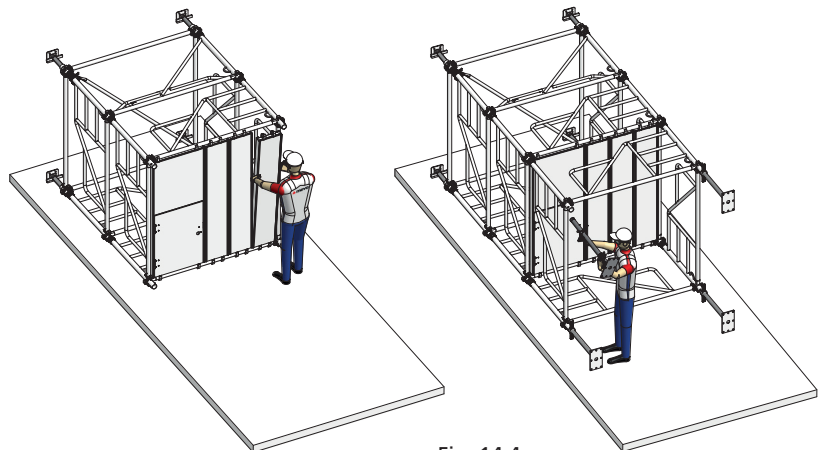


Fig. 14.3

Fig. 14.4

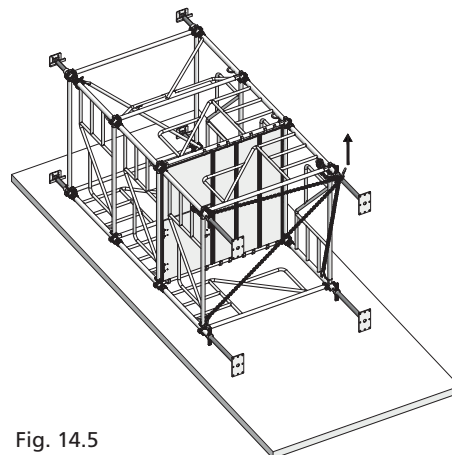


Fig. 14.5

Tower 170 x 340 – Vertical assembly

Ground

Check that the ground is stable enough to support the tower.

Level 0

1. Start the assembly at the highest point.
2. Place planks or another load-distributing support for the base spindles.
3. Place the 4 base spindles MT on the planks or support.
4. Connect the 4 ledgers 170 MT with their integrated wedges to the base spindles MT (Fig. 15.1).
5. Adjust the entire assembly horizontally by adjusting the base spindles MT if and where necessary. Make sure not to exceed the maximum spindle length of 44 cm.
6. Tighten the wedges with a few hammer blows (Fig. 15.1).

Level 1 (Fig. 15.2)

7. Standing on the inside, plug the access frame 100 MT onto the base spindle at an angle of 45° and turn it outwards until it locks (Fig. 15.2).
8. Attach the frames 100 MT to the other spindles the way you attached the access frame in Step 7 (Fig. 15.3).

9. Attach a horizontal brace MT between two frames MT 100 to make sure the entire frame construction is rectangular (Fig. 15.3).
10. Suspend the following scaffold platforms for level 0 at the ledgers 170 MT:
 - 2 scaffold platforms 170/68 with access hatch
 - 6 scaffold platforms 170/30

Important

Always suspend the scaffold platform 170/68 with access hatch in a way that the access hatch opens to frame 100 MT and you can climb up or down the ladder that is integrated in the frame (Fig. 11.2 on page MT-11).

Level 2

11. Standing on the scaffold platform of level 0, suspend the frames 100 MT for level 2 (Fig. 15.4).

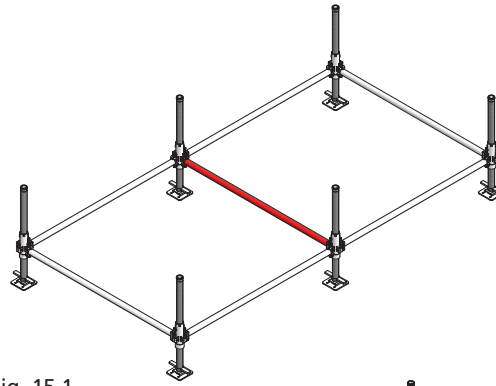


Fig. 15.1

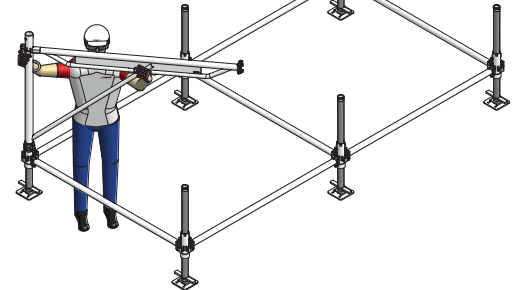


Fig. 15.2

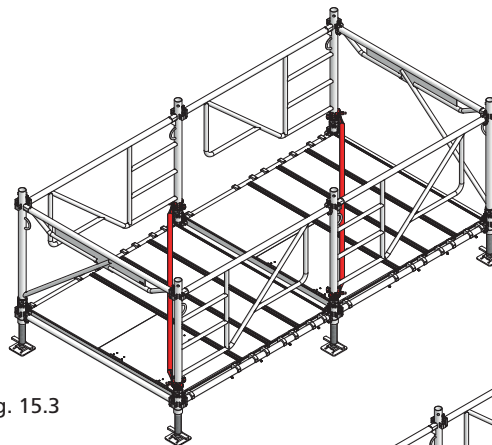


Fig. 15.3

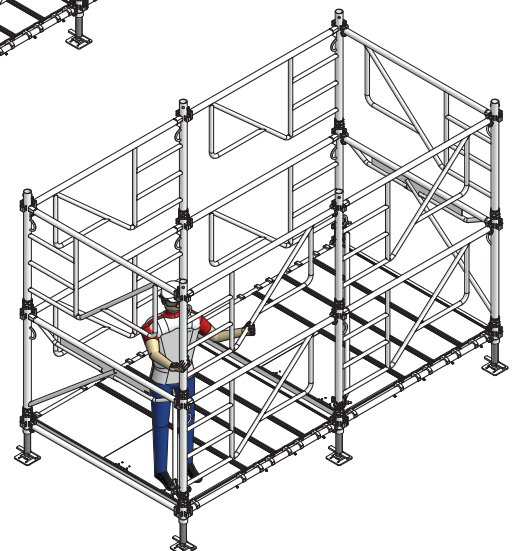


Fig. 15.4

Description	Ref. No.
Basic frame 100 MT	29-120-10
Horizontal brace MT ...	29-127-10
Scaffold platform 170/68	
w/ access hatch.....	29-131-30
Scaffold platform	
170/30.....	29-131-40

Tower 170 x 340 – Vertical assembly

12. Suspend scaffold platforms 170/30 and scaffold platform 170/68 with access hatch for level 1 (Fig. 16.1).

13. Install ledger 170 MT und diagonal brace 170/100 MT to brace both towers (Fig. 16.2). Bracing with ledger and diagonal brace is required on each tower level.

14. Suspend all other scaffold platforms 170/30 in level 1.

15. Ascend to level 1 and suspend the scaffold platform 170/68 with access hatch (Fig. 16.3)

Important

Always suspend the scaffold platform 170/68 with access hatch in a way that the access hatch opens to frame 100 MT and you can climb up or down the ladder that is integrated in the frame (Fig. 12.2 on page MT-12).

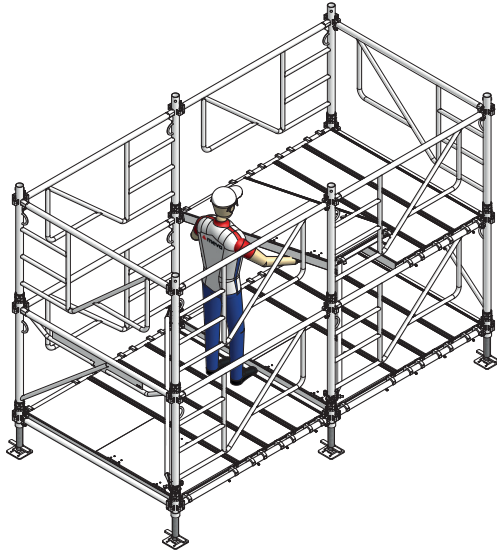


Fig. 16.1



Fig. 16.2

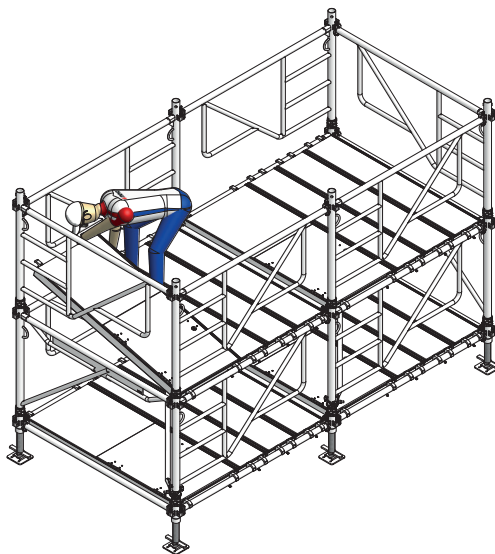


Fig. 16.3

Description	Ref. No.
Basic frame 100 MT....	29-120-10
Horizontal brace MT ...	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Planking 170/30.....	29-131-40
Ledger 170 MT.....	29-122-10
Diagonal brace 170/100 MT.....	29-125-25

Tower 170 x 340 – Vertical assembly

Level 3

16. Standing on the scaffold platform of level 1, install the frames 100 MT for level 3 (Fig. 17.1).

17. Remove the scaffold platforms from level 1 in one tower and suspend them in level 2 (Fig. 17.2).

18. Install the bracing between the two towers (Fig. 17.3).

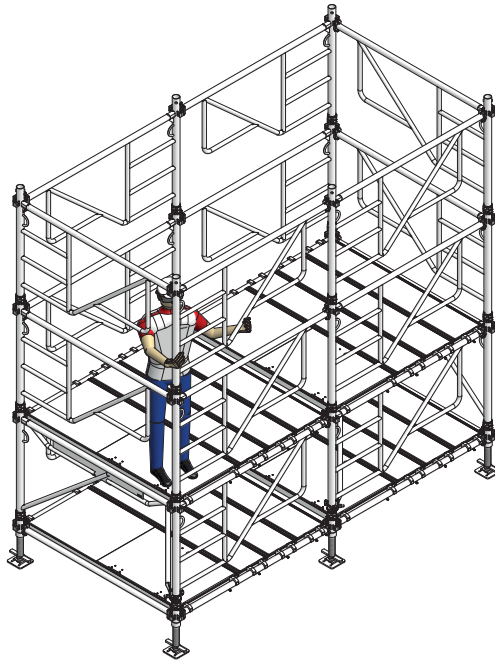


Fig. 17.1

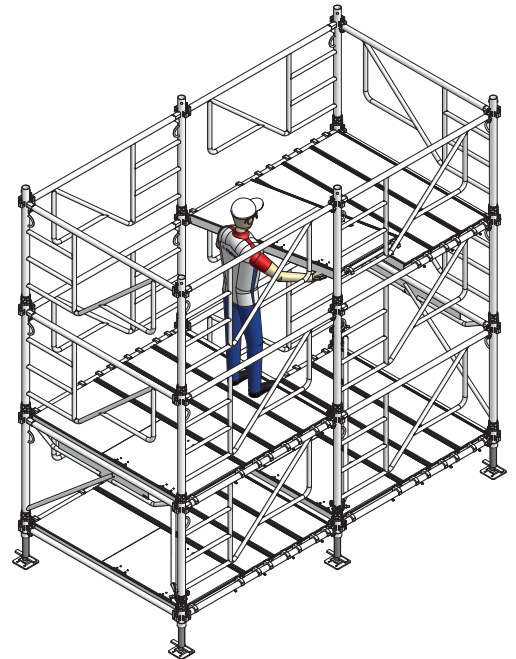


Fig. 17.2

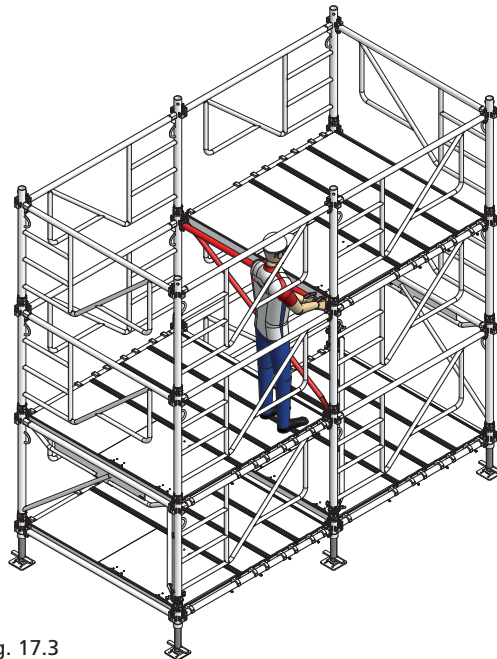


Fig. 17.3

Description	Ref. No.
Basic frame 100 MT ...	29-120-10
Horizontal brace MT ...	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/30.....	29-131-40
Ledger 170 MT	29-122-10
Diagonal brace 170/100 MT.....	29-125-25

Tower 170 x 340 – Vertical assembly

19. Remove the scaffold platforms from level 1 and install them on level 2 (Fig. 18.1).
20. Ascend to level 2 (Fig. 18.2).
21. Install toe boards 170 MT, head spindles MT and the bracing between the towers.

Attention

Depending on its height and the load it is exposed to, e.g. wind load, the tower needs to be anchored to an existing building. Several towers need to be connected with diagonal braces and ledgers. Follow the details provided by the stress analyst.

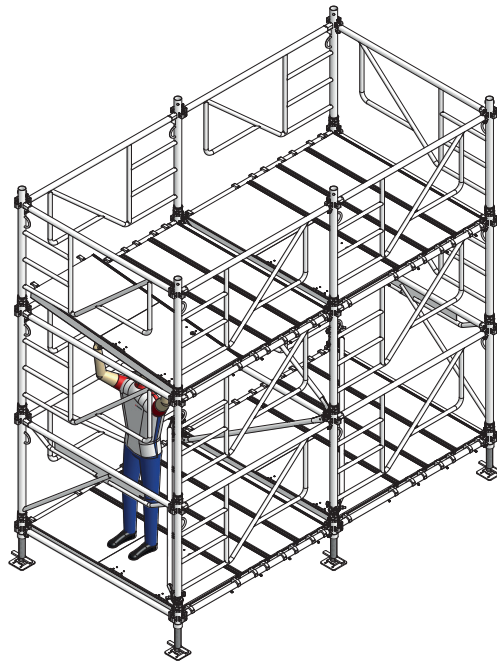


Fig. 18.1

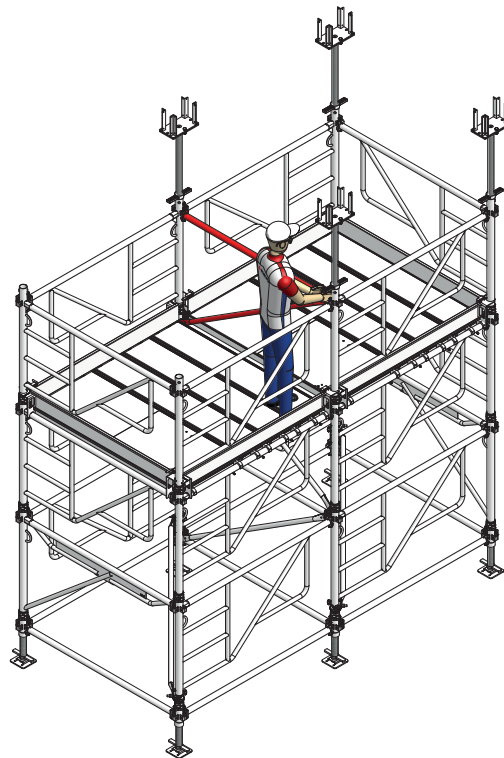


Fig. 18.2

Description	Ref. No.
Basic frame 100 MT.....	29-120-10
Horizontal brace MT.....	29-127-10
Scaffold platform 170/68 w/ access hatch.....	29-131-30
Scaffold platform 170/30.....	29-131-40
Ledger 170 MT.....	29-122-10
Diagonal brace 170/100 MT.....	29-125-25

Working platform between two towers

A safe working or walking area between two towers can be achieved by installing either scaffold platform 170 or scaffold platform 220 and platform railing 170 or 220 respectively.

The railing is attached to the frames 100 MT on both sides (Fig. 19.1).

Make sure to plan and install an access frame 100 MT towards the platform in both towers so that the platform can be accessed from the towers (Fig. 19.2).

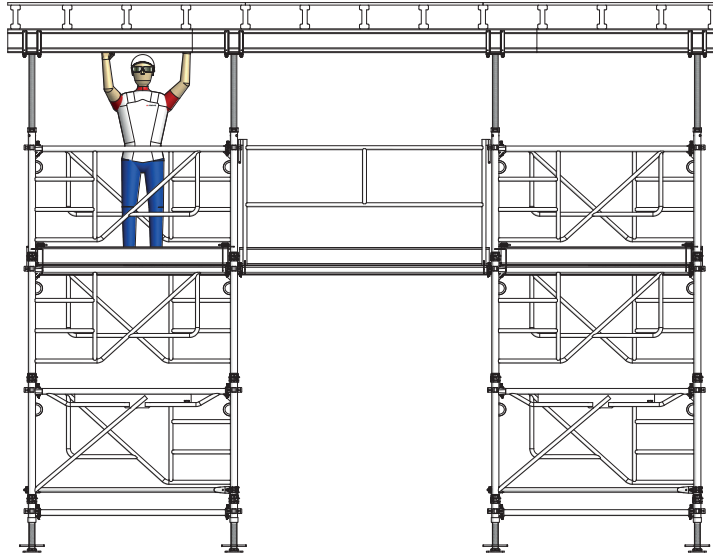


Fig. 19.1

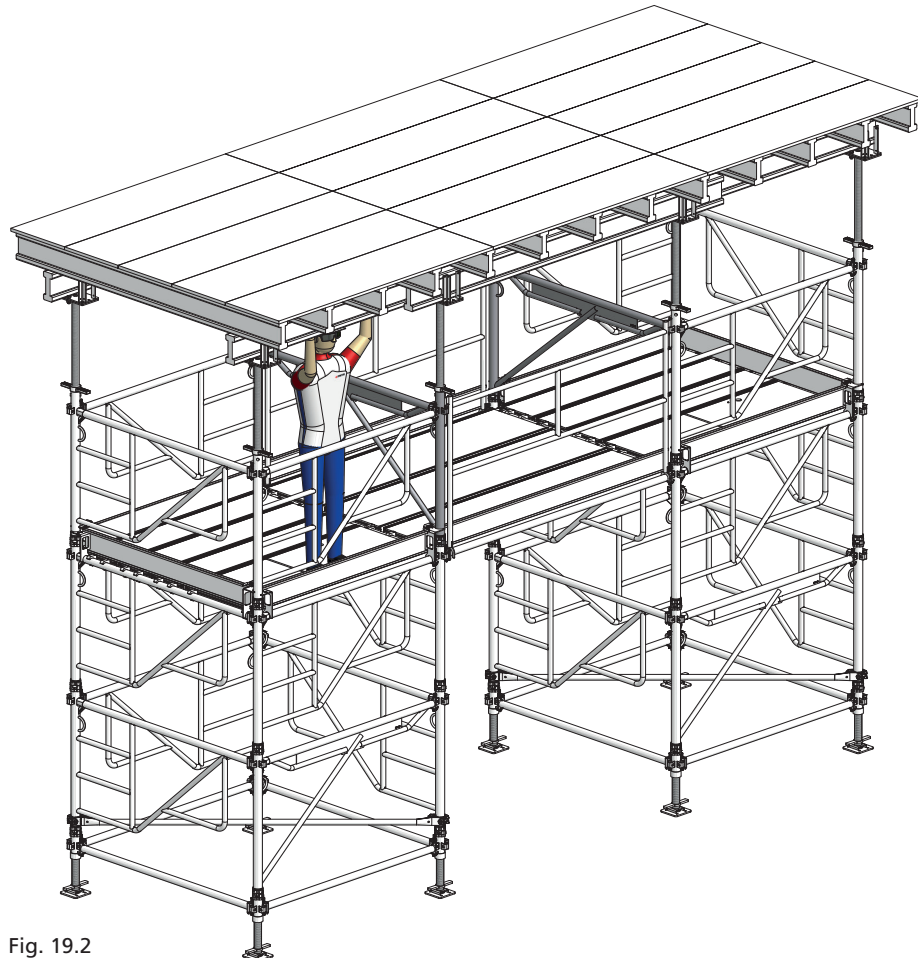


Fig. 19.2

Description	Ref. No.
Scaffold platform	
170/52.5.....	29-131-35
170/30.....	29-131-40
220/52.5.....	29-131-10
220/30.....	29-131-15
Toe board	
170 MT.....	29-126-15
220 MT.....	29-126-10
Platform railing	
170 MT.....	29-128-15
220 MT.....	29-128-10
Ledger	
170 MT.....	29-122-10
220 MT.....	29-122-15
Standard post 100 MT	29-123-10

Transport by crane

The entire tower is transported in one lift.

The 4-rope crane slings are attached to the crane eyes of the frames MT (Detail 20.1).

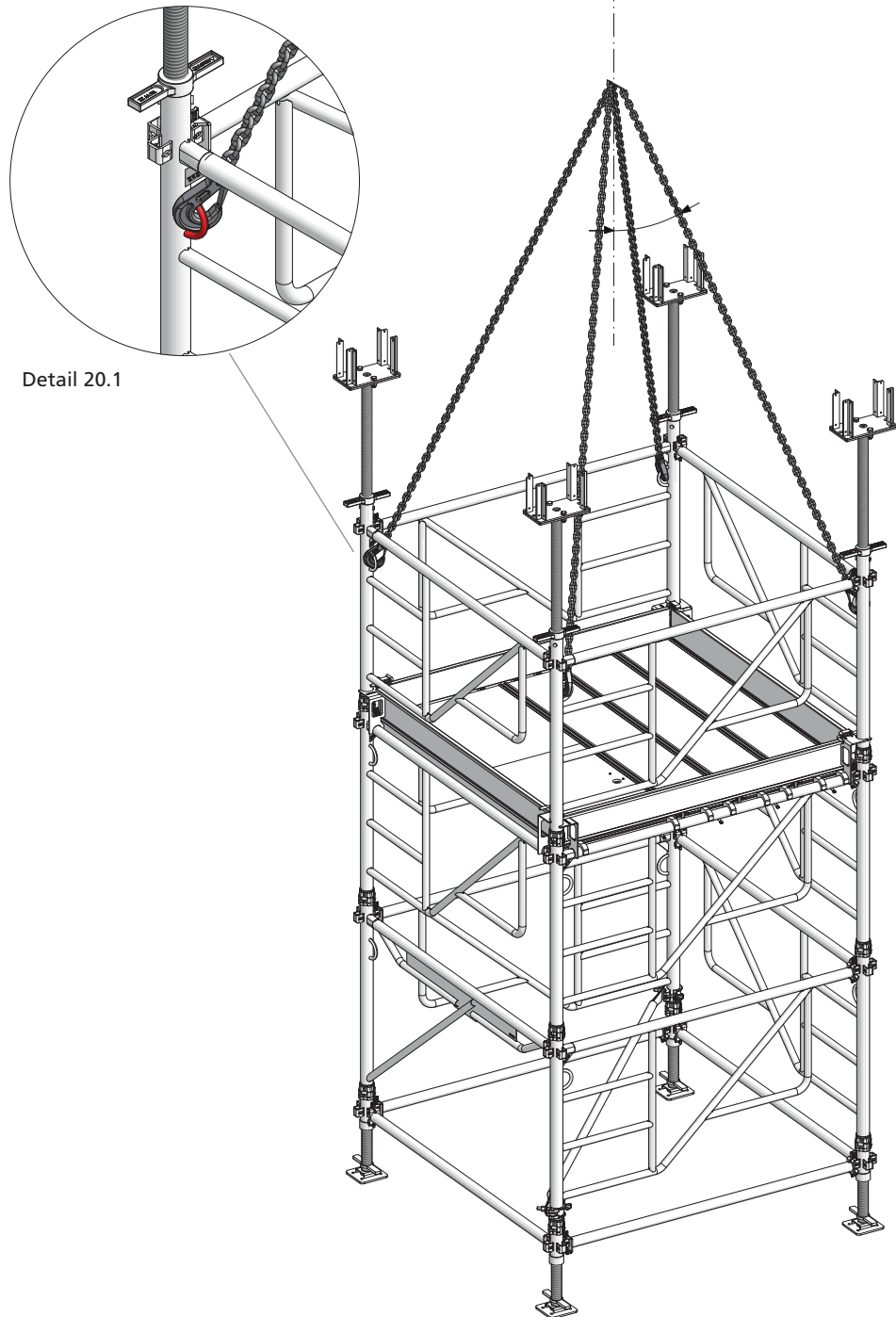


Fig. 20.1

Transport on wheels

Please note that transport wheels must only be used for towers with a maximum of 5 levels.

By using transport wheels the tower can be wheeled to another position as a complete unit.

The transport wheels are attached to the base spindles MT and the frames MT (Detail 21.1). Make sure to always use 4 transport wheels.

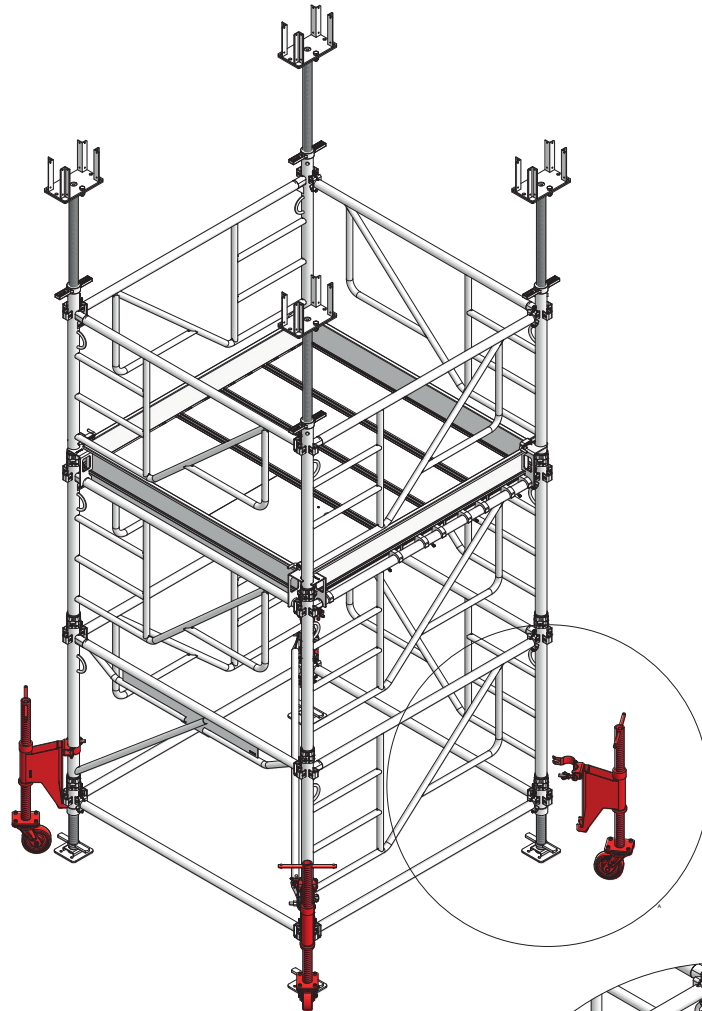
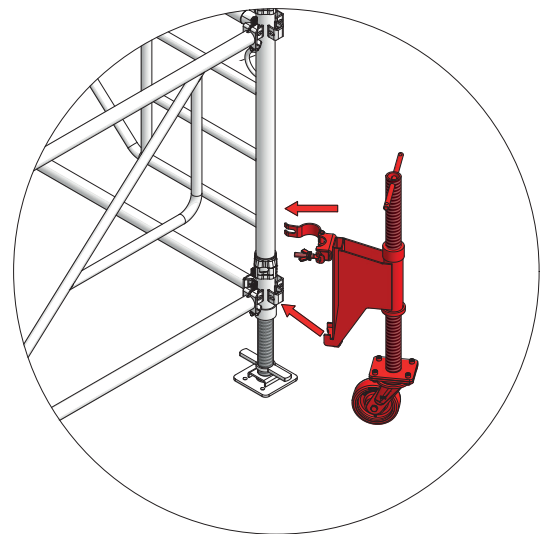


Fig. 21.1



Detail 21.1

Description	Ref. No.
Transport wheel MT	29-129-60

Use with slab formwork MevaDec

The slab formwork MevaDec (Fig. 22.1) is assembled from the top platform of the tower.

Note

Make sure to follow the MevaDec Technical Instruction Manual when assembling, using and disassembling MevaDec.

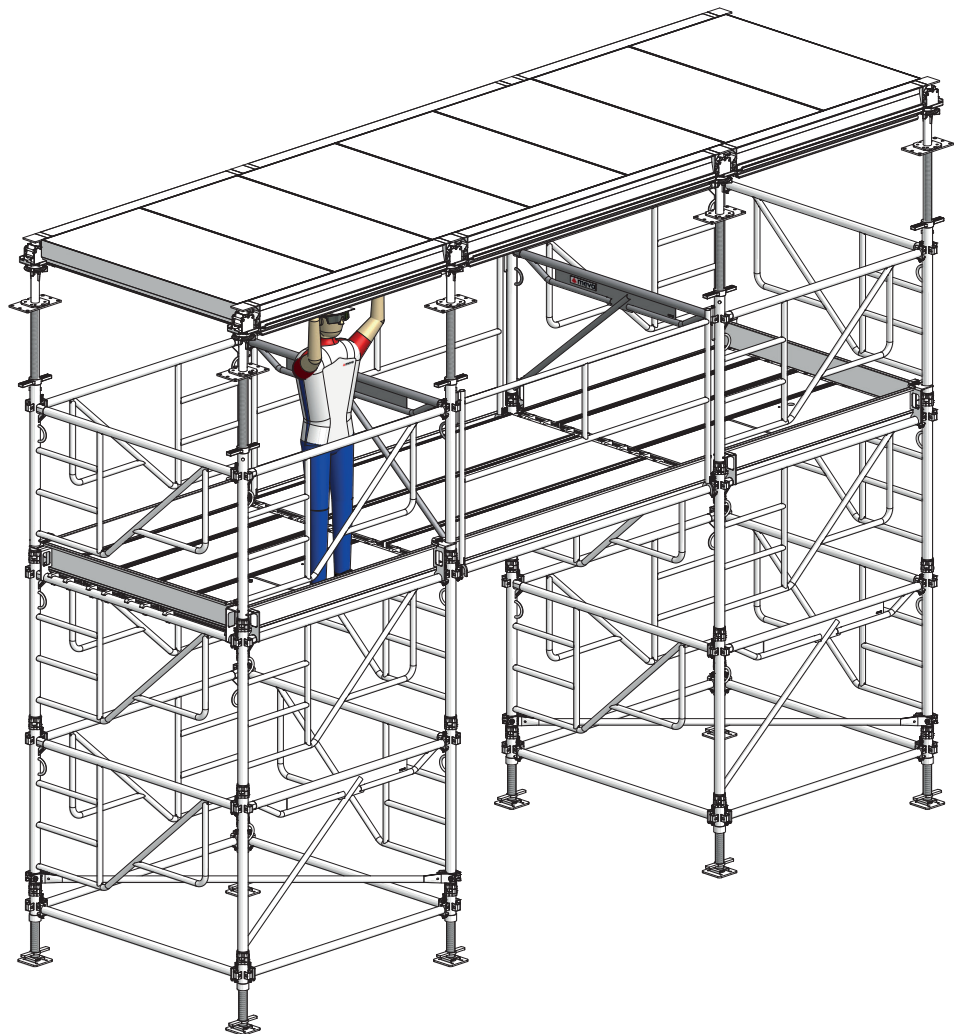


Fig. 22.1 Shoring towers MT 60 supporting the MevaDec slab formwork

Use with slab formwork MevaFlex

The slab formwork MevaDec (Fig. 23.1) is assembled from the top platform of the tower.

Important

For safety reasons always use the forked prop head MEP and attach it with two screws M12 and two lock nuts.

Note

Make sure to follow the MevaFlex Technical Instruction Manual when assembling, using and disassembling MevaFlex.

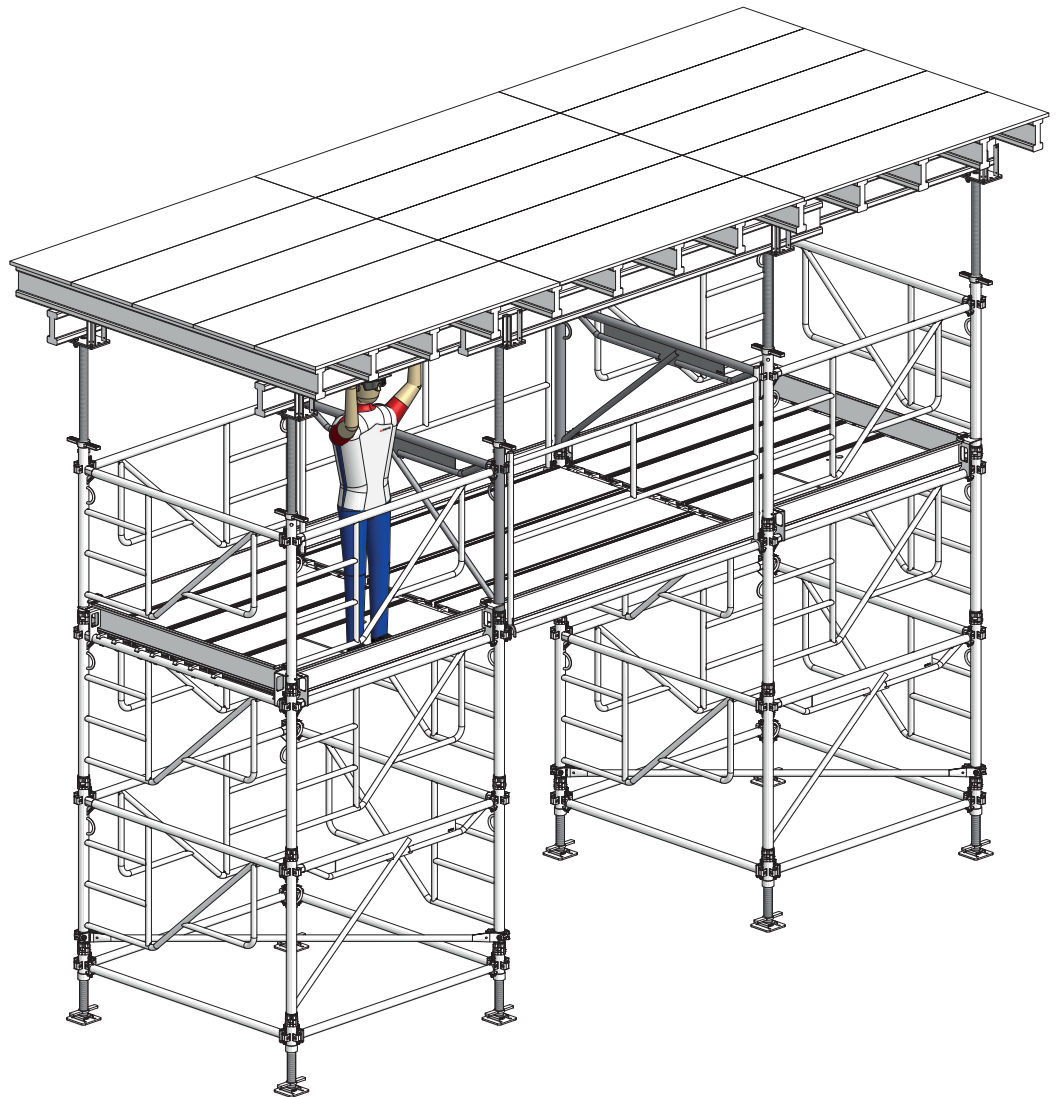


Fig. 23.1 Shoring towers MT 60 supporting the MevaFlex slab formwork

Disassembly

Important

Before removing the slab formwork and disassembling the tower make sure and check that the poured concrete has strengthened sufficiently.

Disassembly procedure

1. Lower the slab formwork as follows:

■ MevaFlex:

Activate the lock nut of the head spindle and lower the slab formwork by approx. 10 cm.

■ MevaDec:

Activate the drop head to lower the slab formwork by 19 cm.

2. Remove the slab formwork.

3. The tower(s) can now be disassembled vertically or horizontally as follows:

■ Vertical disassembly: Leave the tower in its position and disassemble it from top to bottom (all disassembly steps to be carried out in opposite order of assembly).

■ Horizontal disassembly: If the towers are equipped with transport wheels MT and do not have more than 5 levels, separate them and wheel them out of the slab area one after the other. Using a crane, lay the towers flat on the ground and disassemble them from top to bottom.

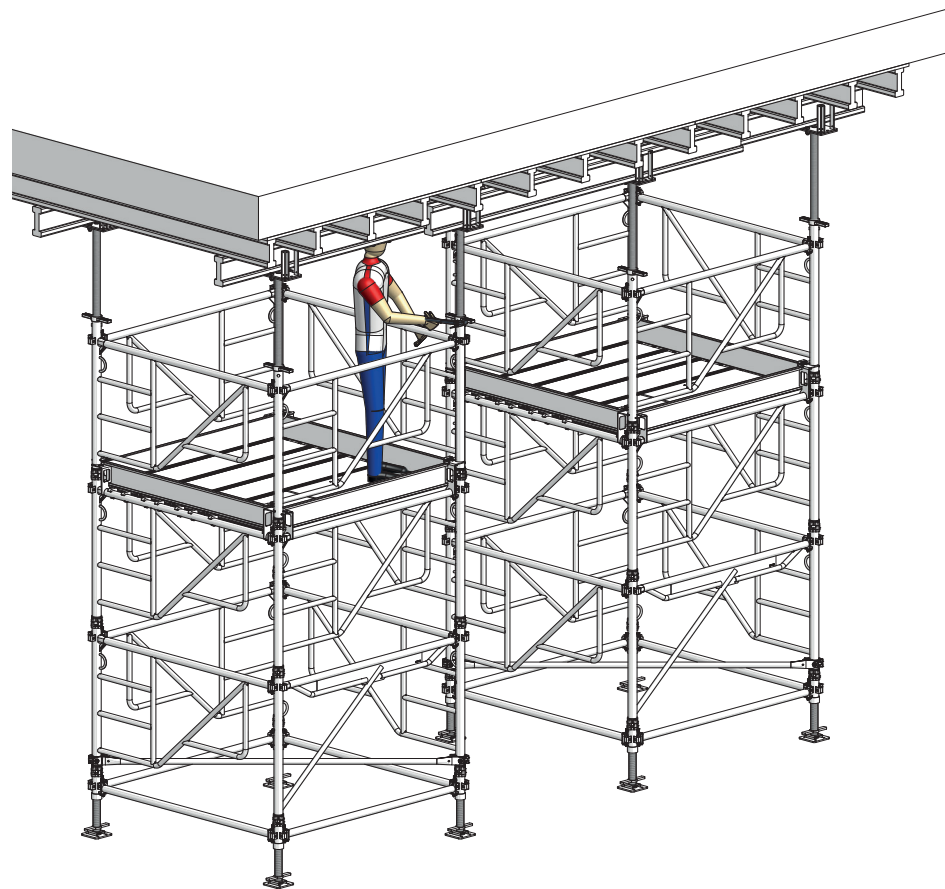


Fig. 24.1

Height configurations from 2.51 m to 6.42 m

The required tower height is achieved by an adequate number of tower levels and by adjusting the spindles. Pages MT-26 through MT-28 show different height configurations (AR = spindle adjustment range). Pages MT-29 and MT-30 list the frames MT and other material required for different heights.

Warning

■ The tower's load capacity depends on its height and the spindles' extension length. The maximum load capacity per post is 60 kN.

■ Depending on its height and the load it is exposed to, e.g. wind load, the tower needs to be anchored to an existing building. Several towers need to be connected with diagonal braces and ledgers. Follow the details provided by the stress analyst.

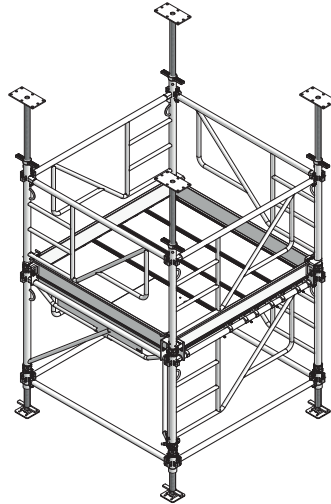


Fig. 25.1 AR: 2.51 to 3.36 m

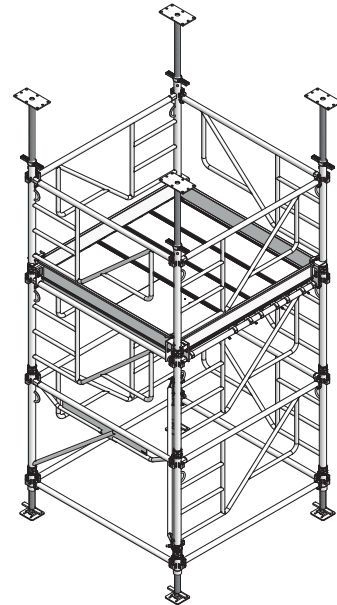


Fig. 25.2 AR: 3.53 to 4.38 m

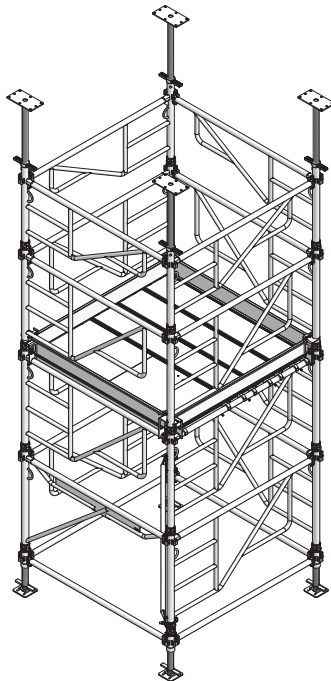


Fig. 25.3 AR: 4.29 to 5.15 m

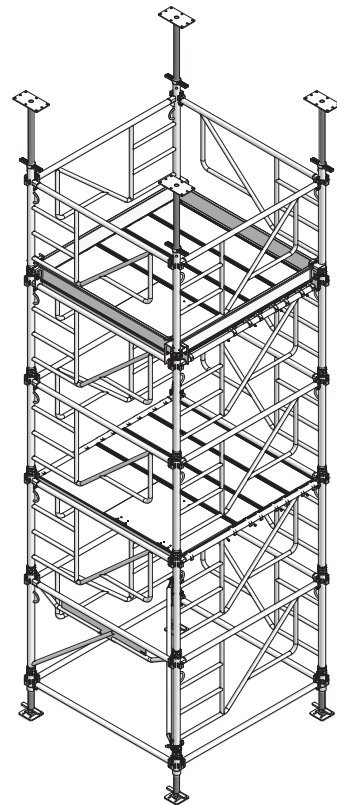


Fig. 25.4 AR: 5.57 to 6.42 m

Height configurations from 6.84 to 8.46 m

The required tower height is achieved by the number of tower levels and by adjusting the spindles. Pages MT-26 through MT-28 show different height configurations (AR = spindle adjustment range). Pages MT-29 and MT-30 list the frames MT and other material required for different heights.

Warning

■ The tower's load capacity depends on its height and the spindles' extension length. The maximum load capacity per post is 60 kN.

■ Depending on its height and the load it is exposed to, e.g. wind load, the tower needs to be anchored to an existing building. Several towers need to be connected with diagonal braces and ledgers. Refer to the details provided by the stress analyst.

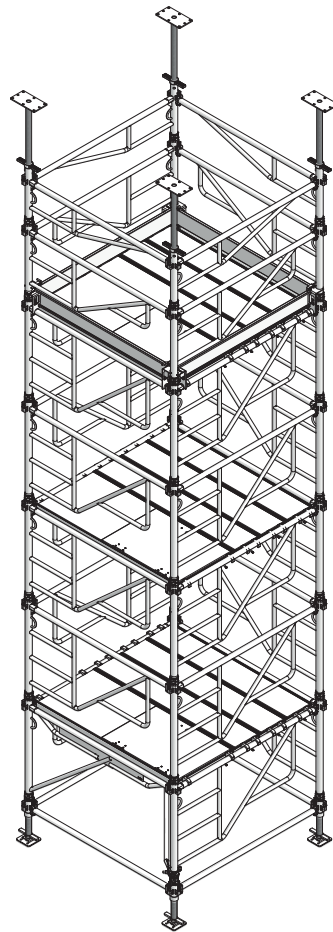


Fig. 26.1 AR: 6.84 to 7.70 m

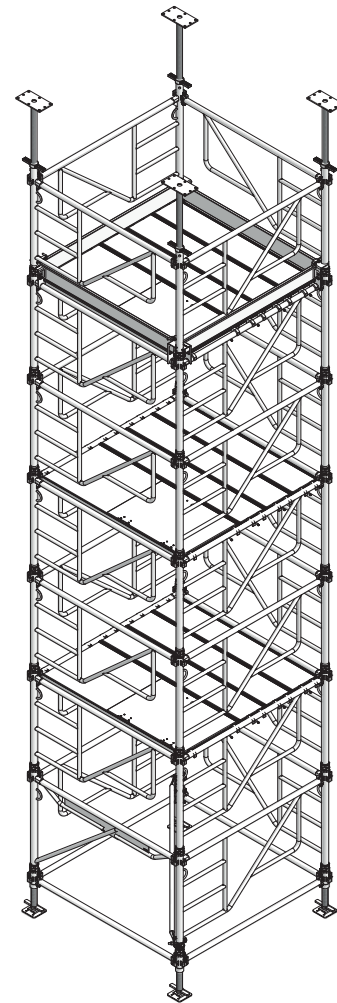


Fig. 26.2 AR: 7.61 to 8.46 m

Height configurations from 9.65 to 12.54 m

The required tower height is achieved by the number of tower levels and by adjusting the spindles. Pages MT-26 through MT-28 show different height configurations (AR = spindle adjustment range). Pages MT-29 and MT-30 list the frames MT and other material required for different heights.

Warning

■ The tower's load capacity depends on its height and the spindles' extension length. The maximum load capacity per post is 60 kN.

■ Depending on its height and the load it is exposed to, e.g. wind load, the tower needs to be anchored to an existing building. Several towers need to be connected with diagonal braces and ledgers. Refer to the details provided by the stress analyst.

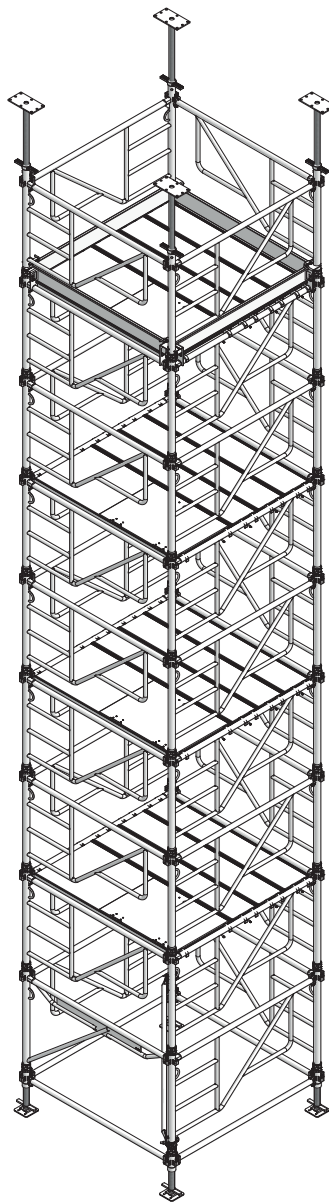


Fig. 27.1 AR: 9.65 to 10.50 m

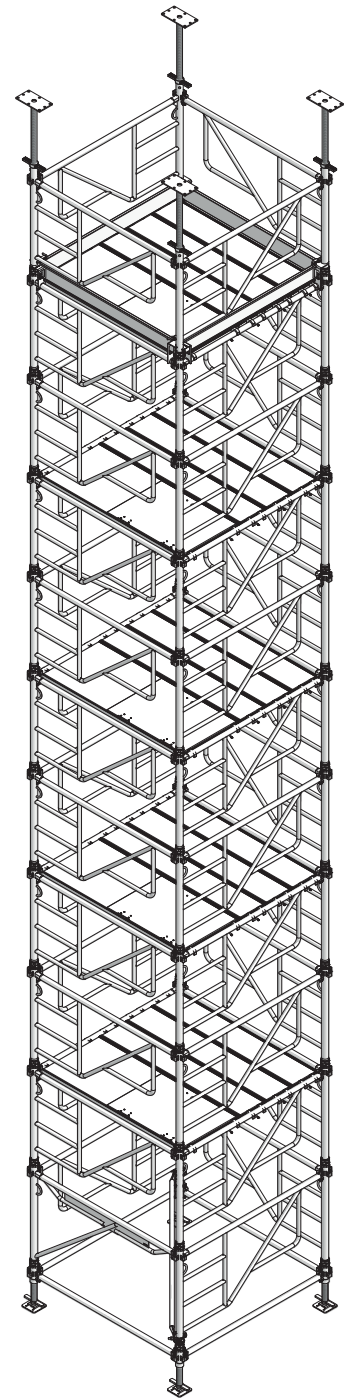


Fig. 27.2 AR: 11.69 to 12.54 m

Material list – Tower heights from 2.01 m to 10.76 m

The table shows all material required to configure standard towers 170 by 170 cm for heights from 2.01 m to 10.76 m.

Note

The material required to connect two towers or install accessories must be planned separately.

Ref. No.	29-120-10		29-120-15		19-120-20		29-121-10		29-129-50		29-129-55		29-122-10		29-127-10		29-126-15		29-131-40		29-131-30		Tower weight [kg]	
	Weight of item [kg]	15.60	13.00	10.20	15.00	10.40	9.70	5.70	8.00	5.80	8.00	14.10	14.10	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00		8.00
Tower height [m]	Basic frame 100 MT	Basic frame 75 MT	Basic frame 50 MT	Access frame 100 MT	Base spindle MT	Head spindle MT	Ledger 170 MT	Horizontal brace MT	Toe board 170 MT	Scaffold platform 170/30	Scaffold platform 170/68 w/ access hatch	Scaffold platform 170/68 w/ access hatch	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30	Scaffold platform 170/30
2.01-2.34	3	0	0	1	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173.00	
2.01-2.60	0	4	4	0	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204.00	
2.01-2.85	3	0	0	1	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	213.80	
2.25-3.11	3	4	0	1	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225.00	
2.51-3.36	7	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	296.70	
2.76-3.62	3	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	327.10	
3.02-3.87	7	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	306.90	
3.27-4.13	7	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	358.70	
3.53-4.38	11	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	397.20	
3.78-4.64	7	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	427.60	
4.04-4.89	11	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	436.00	
4.29-5.15	11	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	449.20	
4.55-5.40	15	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	459.60	
4.80-5.66	11	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	490.00	
5.06-5.91	15	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	500.40	
5.31-6.17	15	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	511.60	
5.57-6.42	19	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	522.00	
5.82-6.68	15	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	552.40	
6.08-6.93	19	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	562.80	
6.33-7.19	19	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	574.00	
6.59-7.44	23	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	622.50	
6.84-7.70	19	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	652.90	
7.10-7.95	23	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	663.30	
7.35-8.21	23	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	674.50	
7.61-8.46	27	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	684.90	
7.86-8.72	23	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	715.30	
8.12-8.97	27	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	725.70	
8.37-9.23	27	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	736.90	
8.63-9.48	31	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	785.40	
8.88-9.74	27	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	815.80	
9.14-9.99	31	0	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	826.20	
9.39-10.25	31	4	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	837.40	
9.65-10.50	35	0	0	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	847.80	
9.90-10.76	31	4	4	1	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	878.20	

Table 28.1

Material list – Tower heights from 10.16 to 18.66 m

The table shows all material required to configure standard towers 170 by 170 cm for heights from 10.16 m to 18.66 m.

Note

The material required to connect two towers or install accessories must be planned separately.

Ref. No.	29-120-10	29-120-15	19-120-20	29-121-10	29-129-50	29-129-55	29-122-10	29-127-10	29-126-15	29-131-40	29-131-30		
	Weight of item [kg]	15.60	13.00	10.20	15.00	10.40	9.70	5.70	8.00	5.80	8.00	14.10	Tower weight [kg]
Tower height [m]	Basic frame 100 MT	Basic frame 75 MT	Basic frame 50 MT	Access frame 100 MT	Base spindle MT	Head spindle MT	Ledger 170 MT	Horizontal-brace MT	Toe board 170 MT	Scaffold platform 170/30	Scaffold platform 170/68 w/ access hatch		
10.16-11.01	35	0	4	1	4	4	4	1	4	12	4	888.60	
10.41-11.27	35	4	0	1	4	4	4	1	4	12	4	899.80	
10.67-11.52	39	0	0	1	4	4	4	1	4	15	5	948.30	
10.92-11.78	35	4	4	1	4	4	4	1	4	15	5	963.10	
11.18-12.03	39	0	4	1	4	4	4	1	4	15	5	989.10	
11.43-12.29	39	4	0	1	4	4	4	1	4	15	5	1000.30	
11.69-12.54	43	0	0	1	4	4	4	1	4	15	5	1010.70	
11.94-12.80	39	4	4	1	4	4	4	1	4	15	5	1041.10	
12.20-13.05	43	0	4	1	4	4	4	1	4	15	5	1051.50	
12.45-13.31	43	4	0	1	4	4	4	1	4	15	5	1062.70	
12.71-13.56	47	0	0	1	4	4	4	1	4	18	6	1111.20	
12.96-13.82	43	4	4	1	4	4	4	1	4	18	6	1141.60	
13.22-14.07	47	0	4	1	4	4	4	1	4	18	6	1152.00	
13.47-14.33	47	4	0	1	4	4	4	1	4	18	6	1140.40	
13.73-14.58	51	0	0	1	4	4	4	1	4	18	6	1173.60	
13.98-14.84	47	4	4	1	4	4	4	1	4	18	6	1204.00	
14.24-15.09	51	0	4	1	4	4	4	1	4	18	6	1214.40	
14.49-15.35	51	4	0	1	4	4	4	1	4	18	6	1225.60	
14.75-15.60	55	0	0	1	4	4	4	1	4	21	7	1274.10	
15.00-15.86	51	4	4	1	4	4	4	1	4	21	7	1304.50	
15.26-16.11	55	0	4	1	4	4	4	1	4	21	7	1314.90	
15.51-16.37	55	4	0	1	4	4	4	1	4	21	7	1326.10	
15.77-16.62	59	0	0	1	4	4	4	1	4	21	7	1336.50	
16.02-16.88	55	4	4	1	4	4	4	1	4	21	7	1366.90	
16.28-17.13	59	0	4	1	4	4	4	1	4	21	7	1377.30	
16.53-17.39	59	4	0	1	4	4	4	1	4	21	7	1388.50	
16.79-17.64	63	0	0	1	4	4	4	1	4	24	8	1437.00	
17.04-17.90	59	4	4	1	4	4	4	1	4	24	8	1467.40	
17.30-18.15	63	0	4	1	4	4	4	1	4	24	8	1477.80	
17.55-18.41	63	4	0	1	4	4	4	1	4	24	8	1489.00	
17.81-18.66	67	0	0	1	4	4	4	1	4	24	8	1499.40	

Table 29.1

Transport and storage

Make sure that all material is secured properly.

Recommendation

Use one load/cargo strap per 1 metre of cargo. That means for a fully loaded truck with a trailer length of 13.60 m, 14 load or cargo straps would be required.

2 load/cargo straps are required per transport rack or bundle of material (Fig. 30.1).

Two transport racks 100 MT, two transport racks 75 MT or 3 transport racks 50 MT can be stacked upon each other on a lorry.

The weight of the piling racks including frames MT is as follows:

- 40 frames 100 MT: 755.50 kg (Fig. 30.1)
- 40 frames 75 MT: 646.50 kg
- 40 frames 50 MT: 525.70 kg

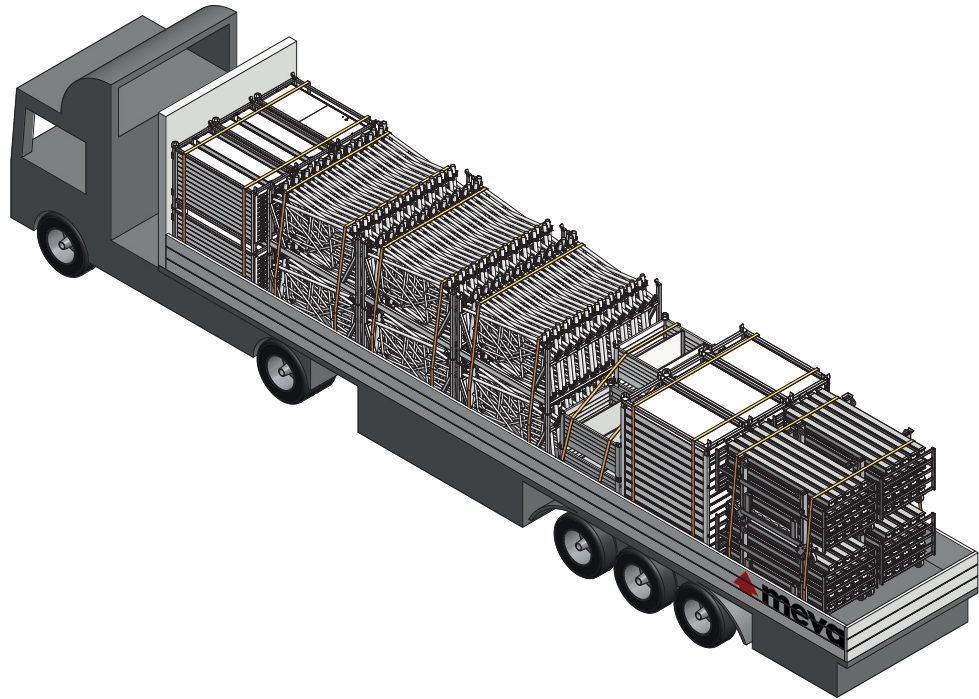


Fig. 30.1

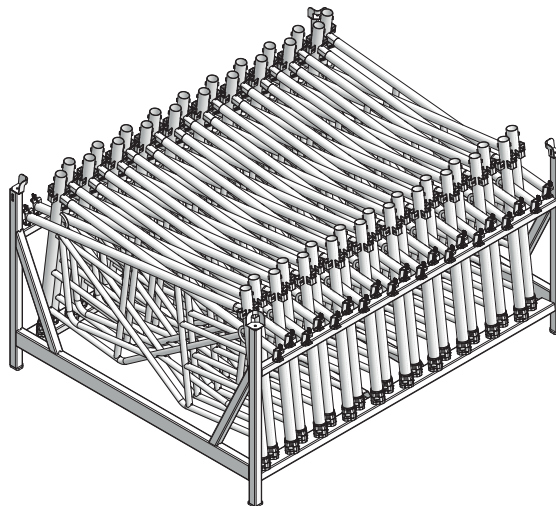
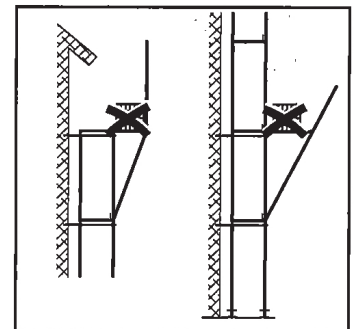
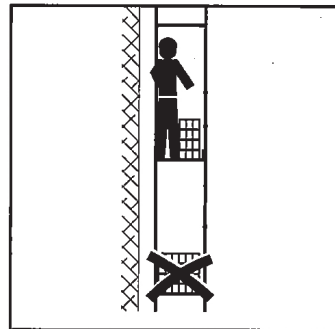
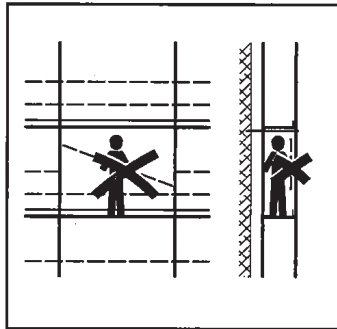


Fig. 30.2

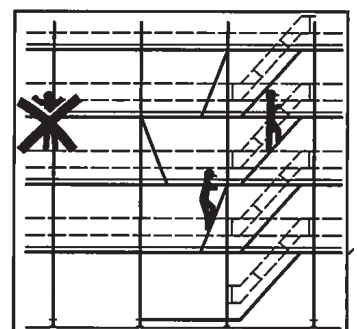
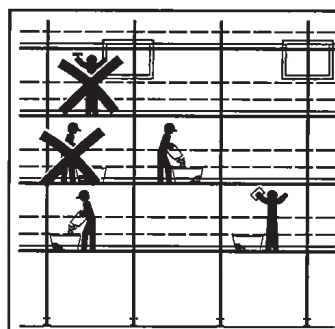
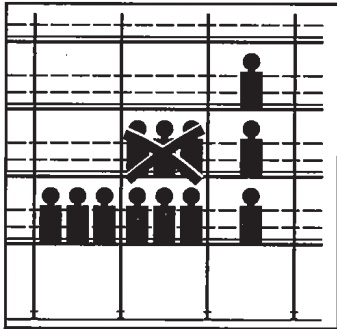
Description	Ref. No.
Transport rack MT	
R100-40	29-132-50
R75-40	29-132-55
R50-40	29-132-60

Important work and handling rules

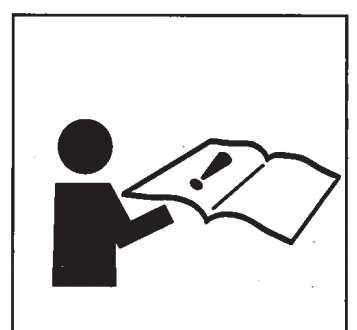
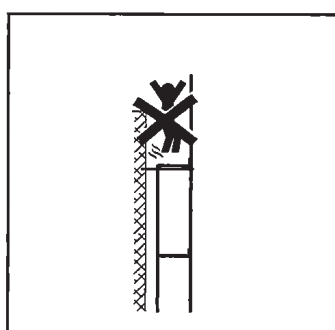
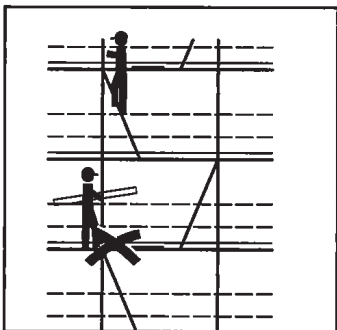
- Any changes to the assembled scaffold only to be made by the contractor.
- When storing material on the deck, make sure to leave enough walking area on the deck.
- Do not store any material on safety scaffolds and canopies.



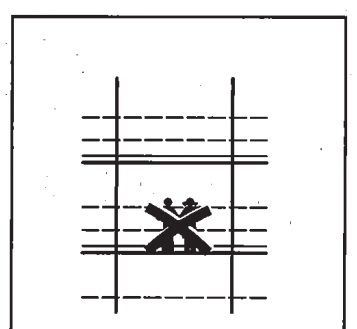
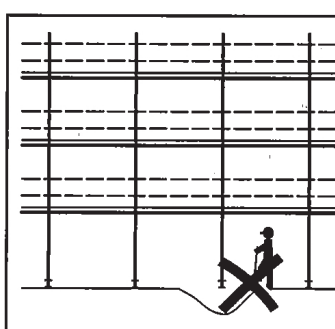
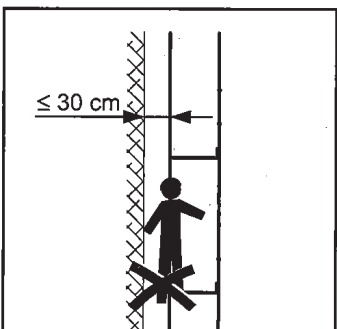
- Do not overload scaffold decks and fields.
- No simultaneous work in areas located above each other.
- Only use existing ladders and stairs when moving up or down.



- Keep access hatches of platforms and decks closed all the time.
- Do not jump onto the deck or scaffold platform.
- Observe and follow the technical instruction 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 by excavation or pits.
- Children must not enter the scaffold or platform.



Service

Cleaning

The formwork is cleaned professionally upon return. Cleaning is done using industrial equipment with assembly lines.

Regeneration

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

As long as the formwork equipment is up-to-date, a regeneration will always be a more economical solution than purchasing new formwork.

Please note that the cleaning and regeneration service is not available in all countries in which MEVA does business.

Rentals

With much equipment on stock, we offer our customers the option of renting supplementary material during peak times. We also give prospective customers the chance to test MEVA formwork so they can see its benefits for themselves in actual use.

RentalPlus

Since MEVA started the flat rate for cleaning and repair of rented formwork systems, more and more contractors experience the outstanding advantages. Ask our representatives about the details!

Formwork drawings

Of course, all offices in our technical department have CAD facilities. You get expert, clearly represented plans and work cycle drawings.

Special solutions

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

Static calculations

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

Formwork seminars

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

