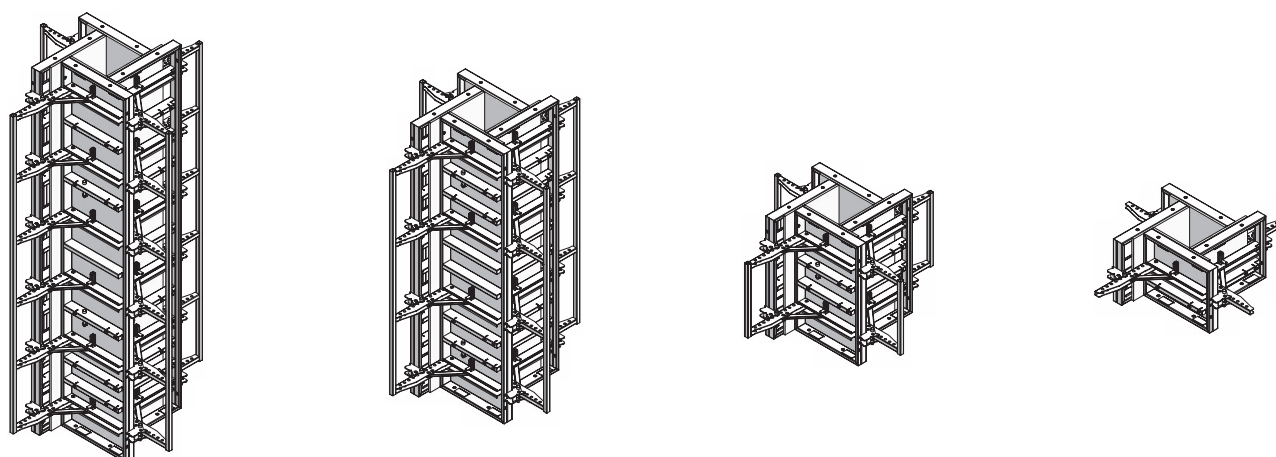


# CaroFalt

**Technical Instruction Manual**



# Column formwork



## Product features

CaroFalt is a folding mobile column formwork system with an access platform, integrated ladders and safety cages.

Every CaroFalt consists of four identical column panels made of hot-dip galvanised and post-treated steel. This ensures improved corrosion protection, making them more durable and easy to clean.

The standard panel heights are 360 cm and 270 cm and the extension panel heights are 120 cm and 60 cm. This allows height extension in increments of 30 cm. The column panels are connected with pins according to the windmill vane principle. Chamfer strips can be added at the corners.

Column cross sections between 20 cm and 60 cm can be formed in increments of 5 cm.

The CaroFalt panels are equipped with a 20 mm thick alkus all-plastic facing. This enables excellent concrete finishes that are subject to more stringent requirements to be achieved.

The column formwork can be moved as a complete unit by crane in one single lift or by hand up to a formwork height of 3.60 m horizontally on transport wheels.

The column formwork features a series of practical features for work on the construction site:

- Brace frames can be attached to all multi-function profiles.
- A steel sheet for sliding protects the alkus facing and panel frames when opening and closing the column formwork.
- The integrated bracket with perforated profiles can be folded into the panel for easy transport. Four panels make up a transport unit with a stacking height of  $4 \times 12 \text{ cm} = 48 \text{ cm}$ .
- The integrated spanner saves time and effort when opening and closing the formwork. After the concrete has set, the spanner is released, the safety bolt removed and the formwork unfolded. The spanner can be installed and operated from the access ladder.
- The access platform ensures work safety at all heights. A ladder with a safety cage guarantees safe access to the access platform.

→ Transport devices 130 are attached to the access platforms and the CaroFalt panels so they can be moved by crane.

→ Height extension is done by adding extension panels to the column formwork from the bottom. This saves time because the top access platform does not have to be removed and reinstalled. The panels are connected without offsets using assembly locks. The column panels have pins that centre them when stacking them for height extension.

The maximum permissible fresh-concrete pressure for the CaroFalt system is  $100 \text{ kN/m}^2$ . The fresh-concrete pressure for vertical formwork according to DIN 18218:2010-01 can be determined easily and precisely with MEVA's online concrete pressure calculator available at [www.meva.net](http://www.meva.net).

### Abbreviations, measurements, figures and tables, etc.

The abbreviation CF is used for the CaroFalt system. 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

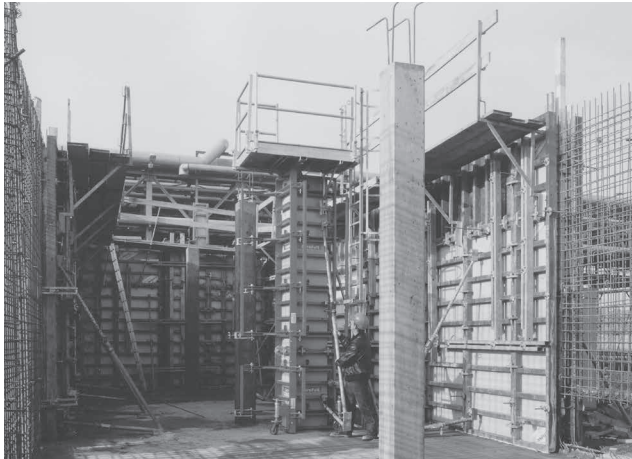
TÜV means Technischer Überwachungsverein. This is the independent German organisation that tests the safety of technical installations, machinery and motor vehicles. If a product passes the test, it is permitted to carry the GS seal. GS stands for Geprüfte Sicherheit (approved safety).

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 CF. 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.

# Column formwork



## 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, local 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!

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## Product overview

- ① CF column panel 270
- ② CF steel sheet for sliding
- ③ CF access platform
- ④ CF scaffold bracket
- ⑤ CF cantilever angle
- ⑥ CF front railing
- ⑦ Ladder 348
- ⑧ CF ladder fixture
- ⑨ Safety cage
- ⑩ CF transport device 130

### Use of release agent with alkus facings

The release agent MevaTrenn is to be sprayed onto MEVA formwork panels before each use. One litre of release agent is sufficient for 50 to 90 m<sup>2</sup> of formwork. The MevaTrenn release agent dries on the formwork in a short space of time and does not form residue. We recommend the stainless-steel jet with ref. no. 29-203-94 to ensure economical use of the release agent. Observe the safety data sheets for MevaTrenn (classic, pro and eco) available at [www.meva.net](http://www.meva.net).

### Pouring concrete

The maximum permissible fresh-concrete pressure of **100 kN/m<sup>2</sup>** is reached at a pouring height of 3.60 m, i.e. for columns higher than 3.60 m the admissible rate of pouring must be taken into account (Table 4.2). The fresh-concrete pressure for vertical formwork according to DIN 18218:2010-01 can be determined easily and precisely

with MEVA's online concrete pressure calculator available at [www.meva.net](http://www.meva.net).

### Compacting concrete

When compacting the concrete, do not insert the vibrator further than a depth of 3.00 m into the concrete. Once the concrete has been compacted, do not vibrate it again (see DIN 4235).

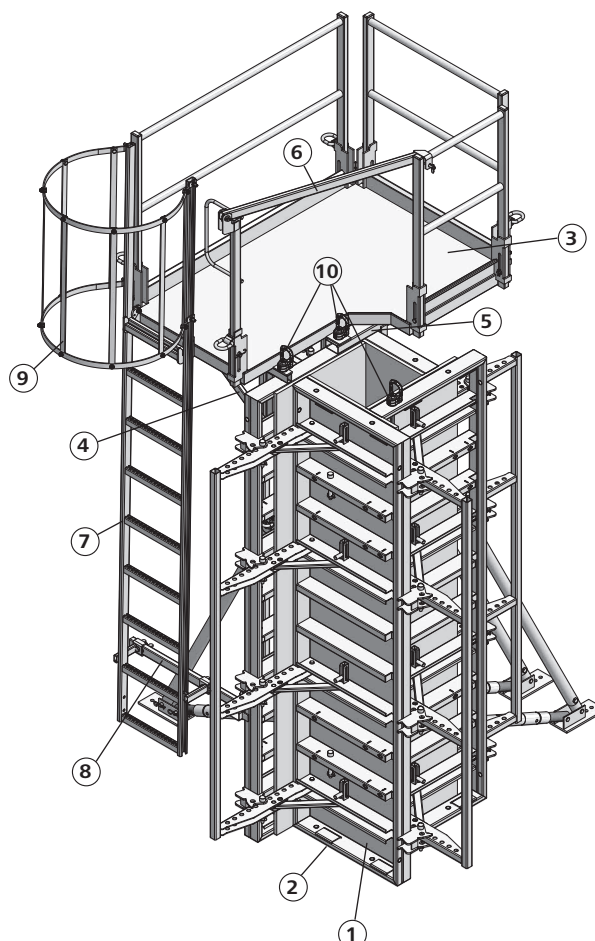


Fig. 4.1

Description	Ref. No.
CF column panel 270 .....	23-603-20
CF steel sheet for sliding .....	29-413-60
CF access platform .....	29-414-10
CF scaffold bracket .....	29-414-15
CF cantilever angle .....	29-414-20
CF front railing .....	29-414-25
Ladder 348 .....	29-414-50
Ladder 243 .....	29-416-50
Extension ladder 270 .....	29-416-52
Extension ladder 120 .....	29-416-55
Extension ladder 90 .....	29-416-60
Extension ladder 60 .....	29-416-62
Ladder connector .....	29-414-70
CF ladder fixture .....	29-414-65
Safety cage 210 .....	29-414-85
Safety cage 85 .....	29-414-90
Safety cage 40 .....	29-416-90
CF transport device 130 .....	29-413-70

Maximum rate of placing $v_b$ (depending on the concrete's consistency and end of setting $t_E$ )* in m/h					
CaroFalt		$t_E = 5 \text{ h}$	$t_E = 7 \text{ h}$	$t_E = 10 \text{ h}$	$t_E = 15 \text{ h}$
Consistency range	F3	5.64	4.72	3.72	2.63
	F4	4.71	3.46	2.36	1.38
	F5	2.40	1.71	1.20	0.80
	F6	1.89	1.35	0.95	0.63
	SCC	2.18	1.56	1.09	0.73

\* According to DIN 18218:2010-01 (fresh-concrete pressure on vertical formwork)

$t_E$  = End of setting of the concrete

$v_b$  = Maximum rate of placing

Table 4.2



# Assembly – Preparation and start

### Preparation

Nail a chamfer strip to the long side of the facing prior to assembly (Detail A).  
Nail spacing: 15 cm.

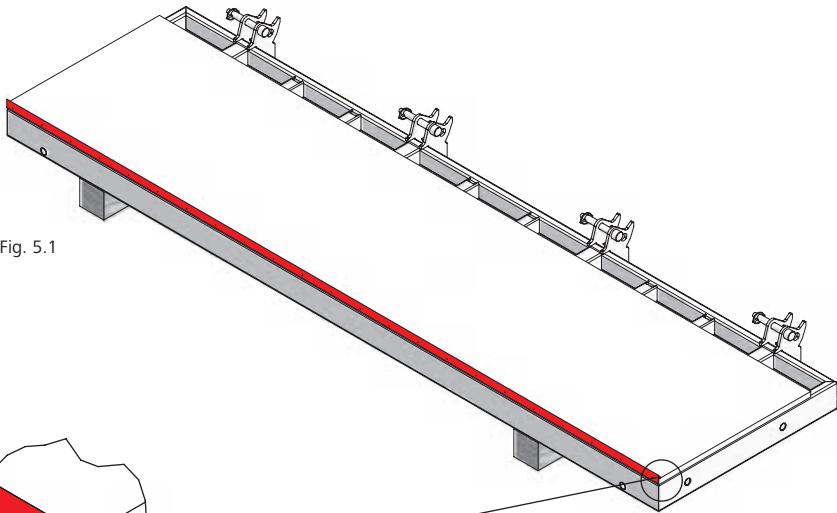
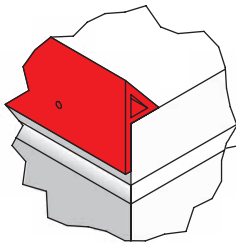


Fig. 5.1

Detail A



### Assembly sequence

1. When the panel is lying on the ground, move the linchpins into the parking position (Detail B).
2. Swing up the perforated profiles.
3. Secure the diagonal bracing in the pin guide with the linchpins.

### Attention

The linchpins must be pushed through completely (Detail C).

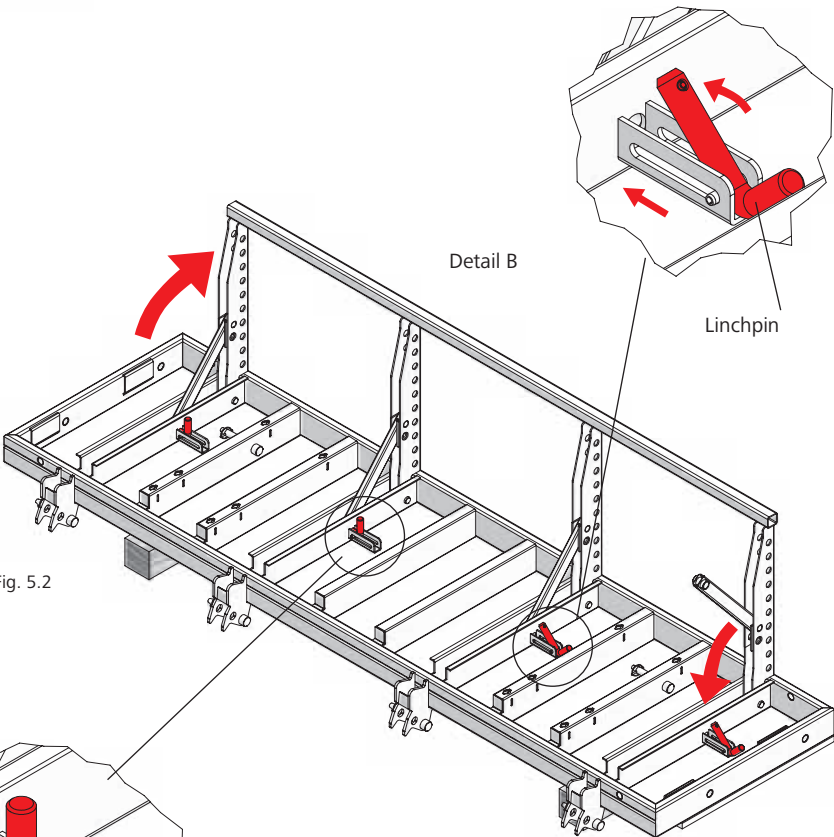
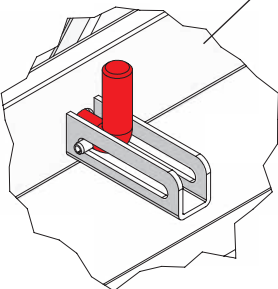


Fig. 5.2

Detail B

Linchpin

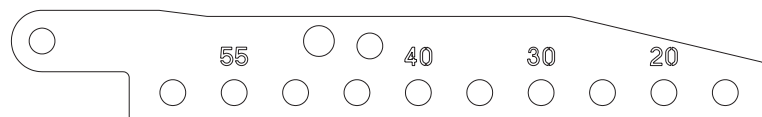
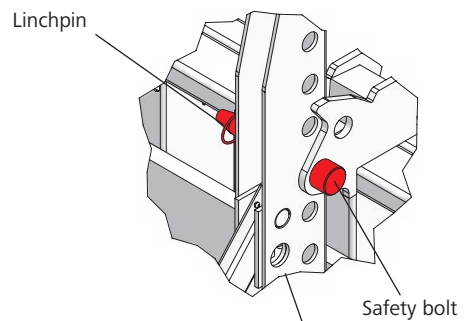
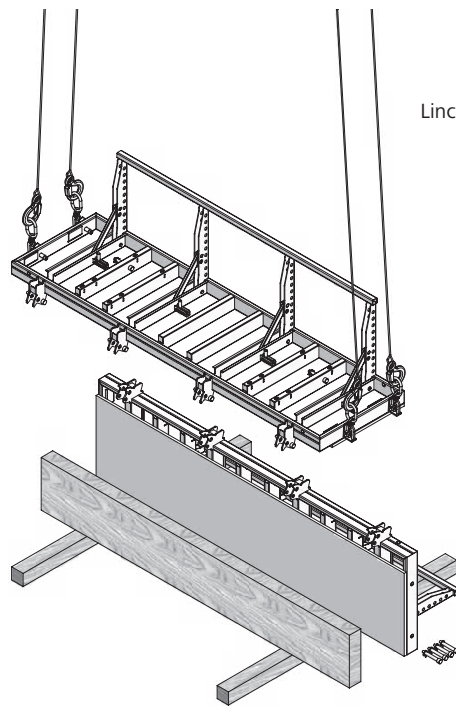
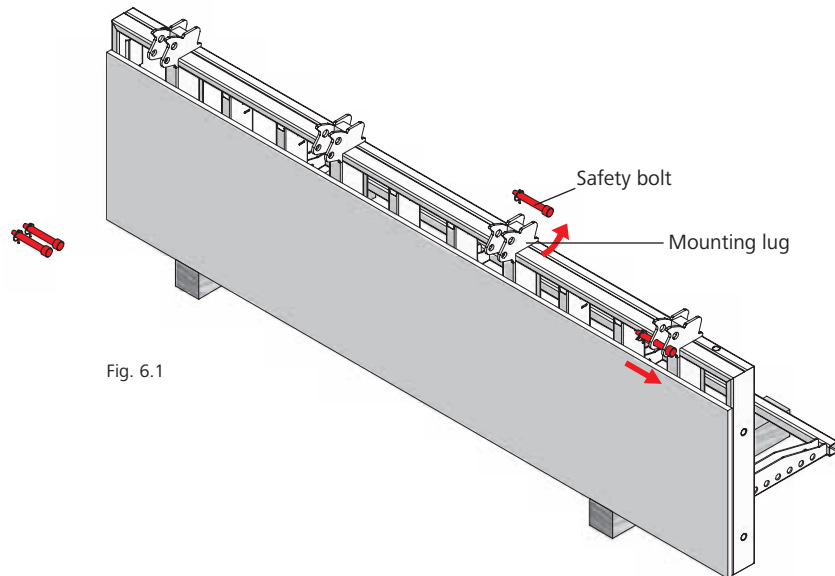
Detail C



Description	Ref. No.
Chamfer strip 15/15, PVC (L=2.50m).....	29-902-90

## Assembly – Column panels

1. Remove the top column panel from the stack and place it with the perforated profile on square timbers.
2. Remove the safety bolts from the mounting lugs (Fig. 6.1).
3. Repeat steps 1 and 2 for the second column panel. A column cross section of, for example, 30 by 30 cm requires a wooden support that is also 30 cm high (Fig. 6.2).
4. Insert four lifting hooks into the transport holes of the second panel and move it with the crane up to the first panel (Fig. 6.2).
5. Connect both panels by inserting safety bolts and linchpins through the mounting lugs and the perforated profiles. The column cross section and the right angle are adjusted correctly if safety bolt 1 can be easily pushed through the hole in the perforated profile (Fig. 6.3 + Detail).
6. After removing the lifting hooks, attach the steel sheet for sliding to the column panel and secure it with linchpins. The integrated tape measure on the perforated profile shows the column cross section and makes measuring superfluous (Fig. 6.4).



# Assembly – Brace frames

- 1. Attach the formwork-prop connectors on the brace frames to the multi-function profiles using flange screws (Fig. 7.1).
- 2. As for the first and second column panels (see page CF-6), now assemble the third and the fourth column panels to form a panel unit. However, no brace frames will be attached to this unit (Fig. 7.2).

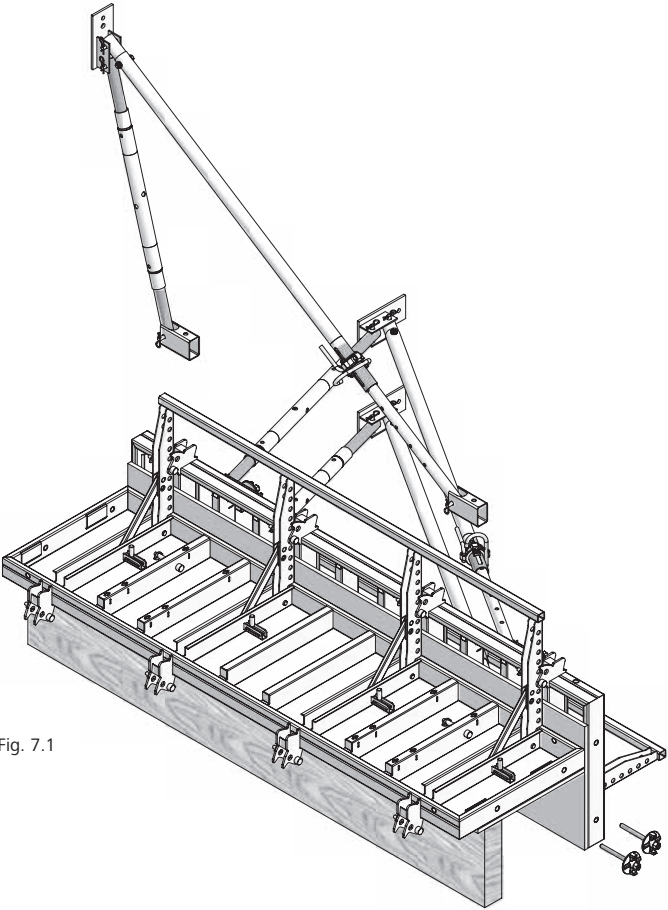


Fig. 7.1

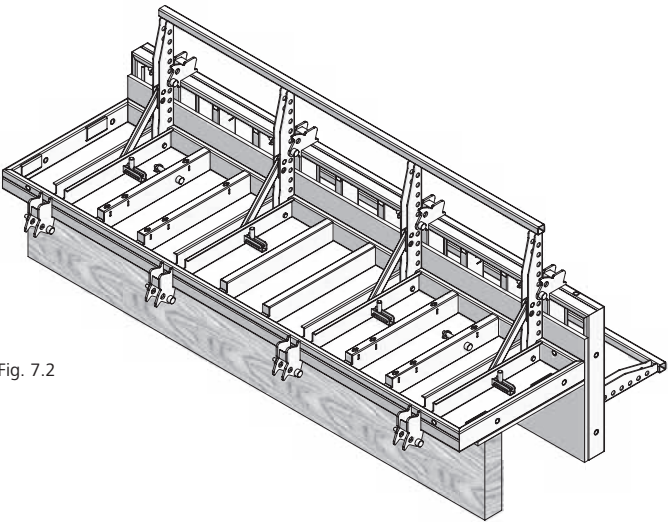


Fig. 7.2

Description	Ref. No.
Brace frame 250 with formwork-prop connector .....	29-109-20
Formwork-prop connector .....	29-804-85
Flange screw 18 .....	29-401-10



# Assembly – Access platform

The access platform is attached to the panel unit using the brace frames while the unit is still lying on the ground.

1. Attach the scaffold bracket to the multi-function profile using a flange screw 18. Then insert a transport device 130 into the transport hole of the column panel to secure the scaffold bracket.
2. Attach the second transport device 130 to the cantilever angle using the second transport hole of the same column panel.
3. Fold up the guardrailing of the access platform and attach a 2-rope crane sling to the crane eyes of the access platform (Fig. 8.1).
4. Align the access platform with the transport device 130 and the attachment points (scaffold bracket and cantilever angle).
5. Screw the hammer-head screws into the access platform and tighten the wing nuts (Fig. 8.2).

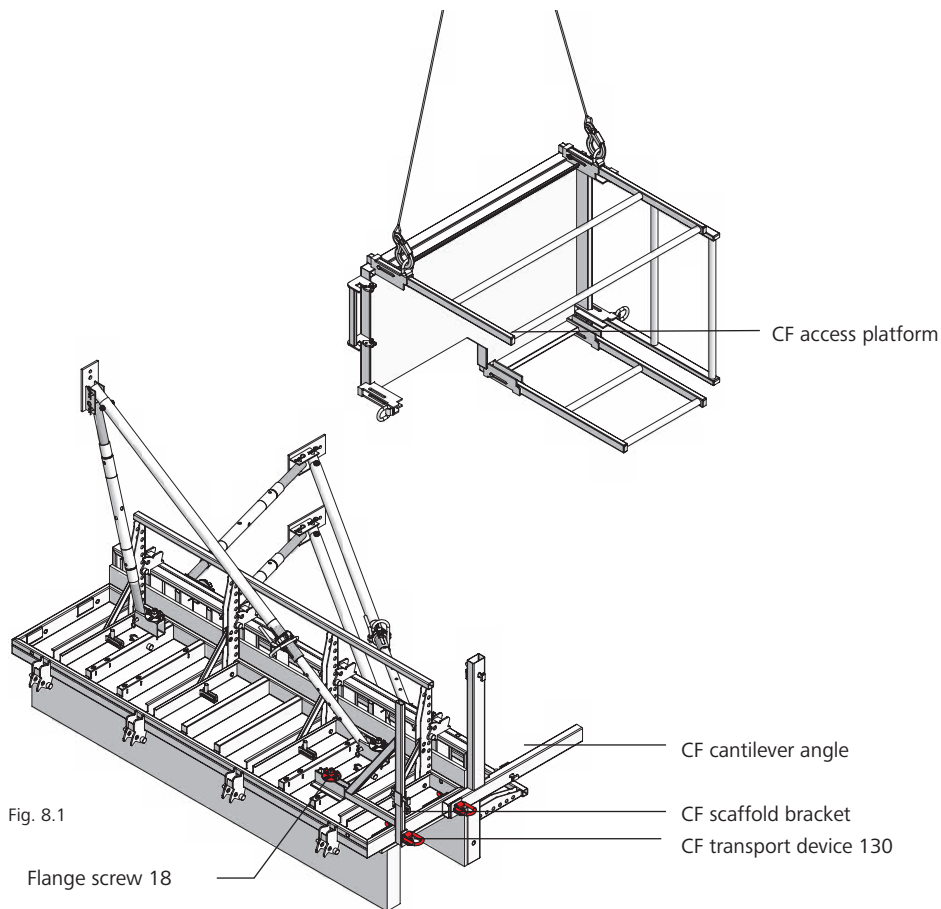


Fig. 8.1

## Attention

Screw in the hammer-head screws correctly.

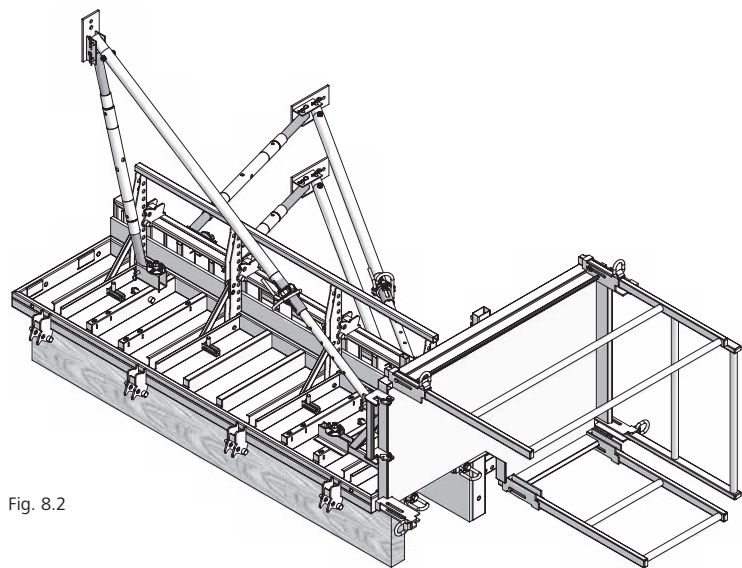


Fig. 8.2

Description	Ref. No.
CF access platform.....	29-414-10
CF scaffold bracket .....	29-414-15
CF cantilever angle.....	29-414-20
CF front railing.....	29-414-25
CF transport device 130.....	29-413-70
Flange screw 18.....	29-401-10

# Assembly – Ladders

The ladder is always installed while the panel unit is lying flat on the ground.

1. Screw the safety cage to the top end of the ladder (Fig. 9.1).
2. Attach the ladder fixture with a flange screw 18 to the panel's multi-function profile (Fig. 9.2).
3. Hang the pre-assembled ladder onto the access platform. Make sure the safety flaps are completely engaged (Fig. 9.4 Detail).
4. Loosen the clamping angle and attach the ladder to the ladder fixture.
5. Screw the clamping angle firmly to the ladder fixture (Figures 9.3 and 9.5).

## Extension ladders

These are required when the access platform cannot be accessed with only one ladder due to the formwork's height. The extension ladders are hooked onto the basic ladders. In addition, an additional ladder fixture must be attached to the lower end of the column formwork. See pages CF-17 to CF-19 for the number of ladders, ladder fixtures and safety cages required.

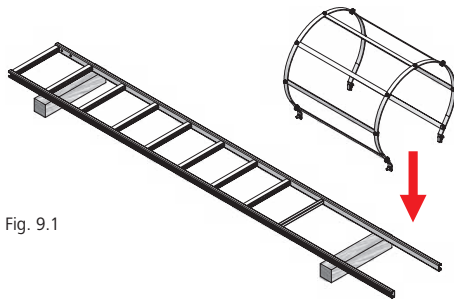


Fig. 9.1

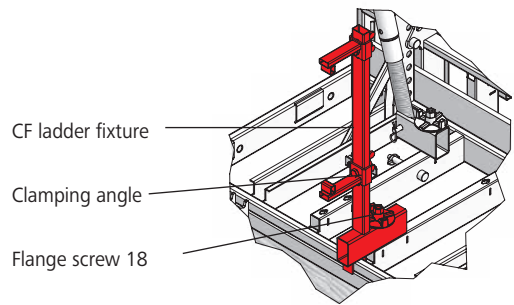


Fig. 9.2

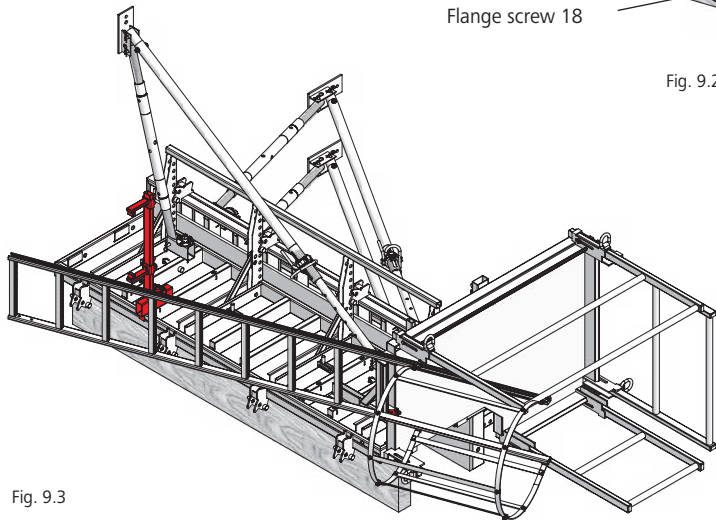


Fig. 9.3

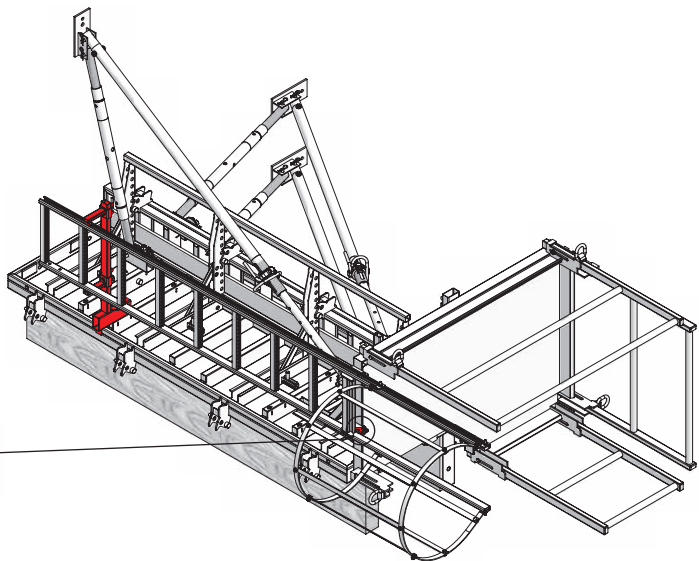


Fig. 9.5

Description	Ref. No.
Ladder 348 .....	29-414-50
Ladder 318 .....	29-414-55
Safety cage 210 .....	29-414-85
Safety cage 85 .....	29-414-90
Extension ladder 210 .....	29-414-60
CF ladder fixture .....	29-414-65
Flange screw 18 .....	29-401-10

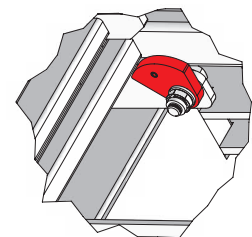


Fig. 9.4 Detail

# Assembly – Erecting and positioning the formwork

### Erecting the formwork

The spanners are attached to the formwork unit without access platform while the unit is still on the ground. Make sure they are near the ladder so they can be operated from the ladder (Fig. 10.1).

1. With a crane or another suitable device, erect the panel unit with the access platform and brace frames at its place of use (Fig. 10.2).
2. Erect the panel unit without access platform and lift it up to the other unit (Fig. 10.3).
3. Connect both units with safety bolts and cotter pins.

### Positioning the formwork

Stop boards on the floor slab facilitate the exact positioning of the formwork.

1. Position the column formwork at a right angle at its place of use, then align and secure it with brace frames that are dowelled to the floor slab.
2. Close the entire column formwork by operating the spanners from the ladder.
3. Check that the formwork is stable. If this is the case, the crane slings can be removed.

### Attention

The stability must always be verified. The brace frames must be secured with M16 heavy-duty dowels in concrete with a strength of at least C 20/25.

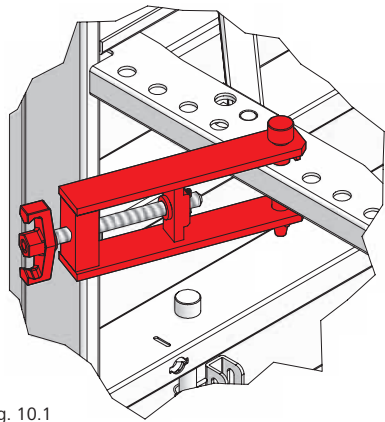


Fig. 10.1

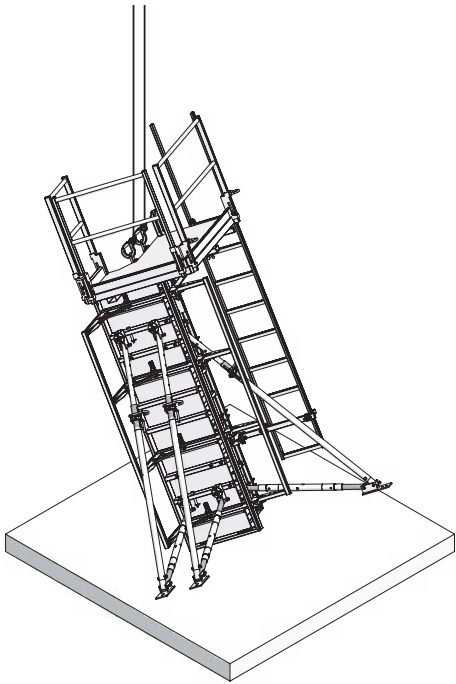


Fig. 10.2

Panel unit  
without access platform

Panel unit  
with access platform  
and brace frames

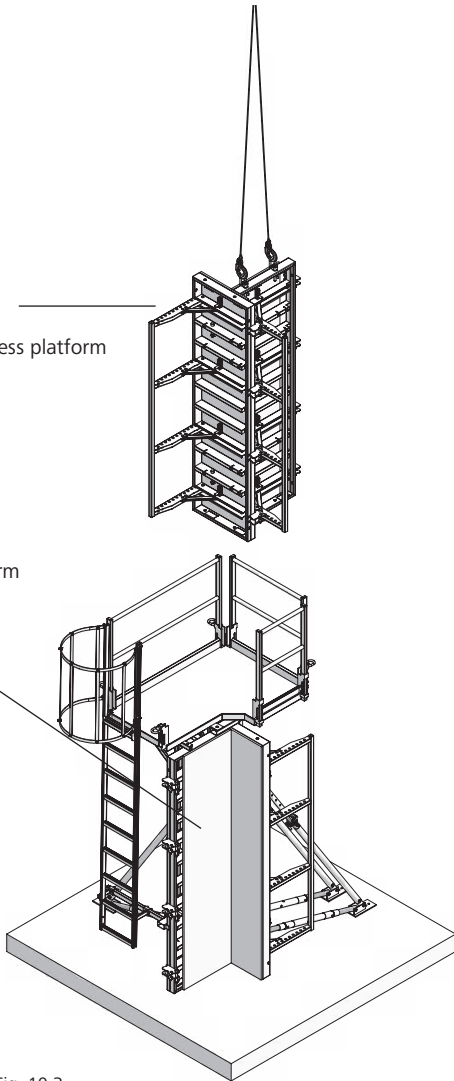


Fig. 10.3

Description	Ref. No.
CF spanner .....	29-413-65



# Assembly – Adjusting the height of the formwork

The column formwork height can be easily adjusted to varying pouring heights by simply adding or removing panel units at the bottom of the assembled formwork (Fig. 11.1). Thus, the access platform and the ladder do not have to be removed and reinstalled when changing the formwork height.

1. Pre-assemble the extension panels on the ground (see page CF-6).
2. Remove the steel sheets for sliding from the existing panel unit and attach them to the extension panels (one sheet per panel).
3. Erect the extension panel and connect it to the existing panel unit with AS assembly locks (Fig. 11.2). For exact positioning and alignment it may be advisable to insert two safety bolts through the transport holes before attaching the assembly locks. The safety bolts must be removed again afterwards.
4. Finally, adjust the ladders to the new formwork height (refer also to page CF-9).

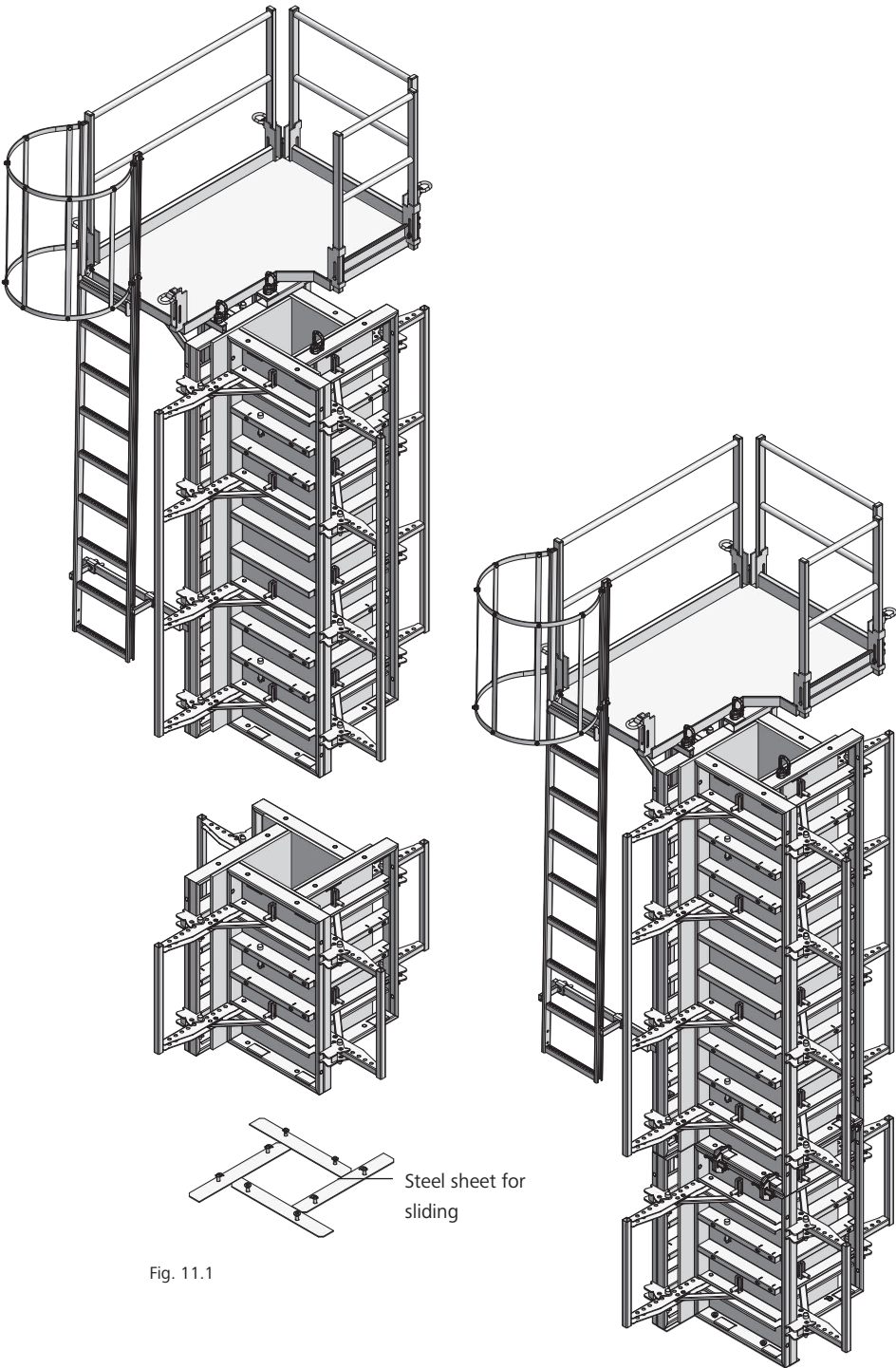


Fig. 11.1

Fig. 11.2

Description	Ref. No.
CF column panel 360.....	23-603-10
CF column panel 270.....	23-603-20
CF column panel 120.....	23-603-30
CF column panel 60.....	23-603-40
CF steel sheet for sliding.....	29-413-60
AS assembly lock.....	29-205-00

# Application – Closing the column formwork

- 1. Rotate the column panels into position and close them by hand as far as possible (Fig. 12.1).
- 2. Swivel the spanners in and tighten them. The column cross section and the right angle are adjusted correctly if safety bolt 1 can easily be pushed through the hole in the perforated profile (Fig. 12.3 Detail).
- 3. After pushing safety bolt 1 through the hole, the CF spanner must be loosened.

**Attention**  
Pay attention to the column cross section!

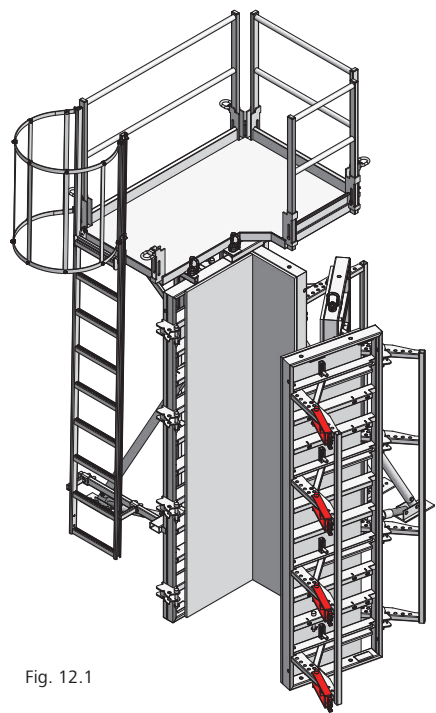


Fig. 12.1

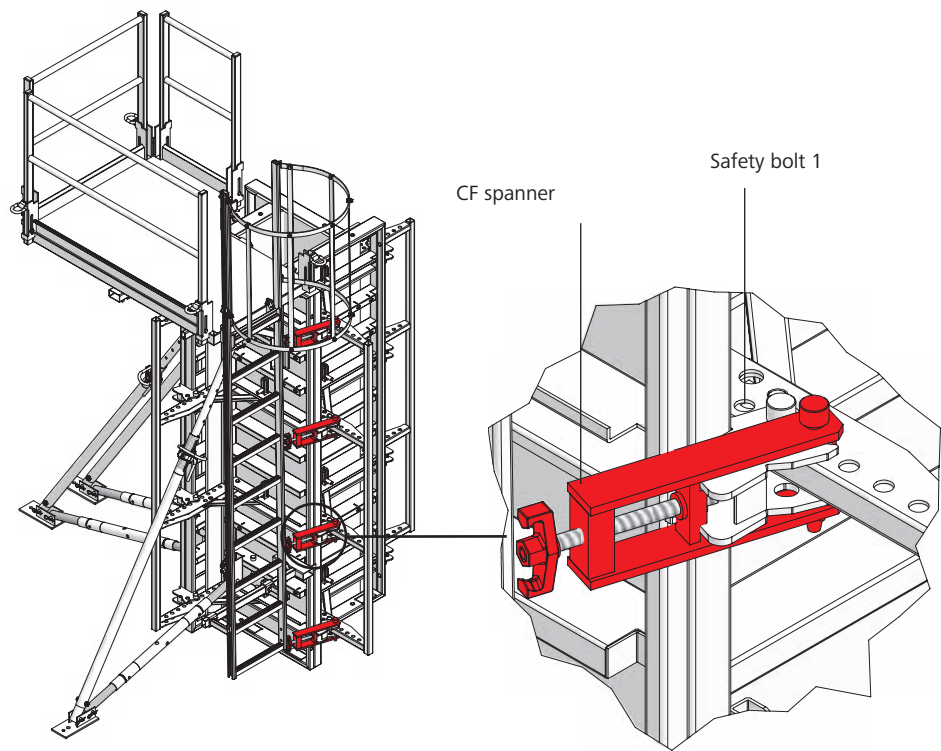


Fig. 12.2

Fig. 12.3 Detail

Description	Ref. No.
CF spanner .....	29-413-65

## Application – Stripping / transporting by crane

### Stripping

1. Swivel the spanners that were loosened when closing the formwork back in and tighten them from the ladder until safety bolt 1 can be removed.
2. After removing safety bolt 1, loosen the spanners and swivel them back.
3. Secure the column formwork with a crane or another suitable device.
4. Loosen the dowel connection of the brace frames.
5. Swing out the column formwork until the mounting lug and the perforated profile can be locked with safety bolt 2 (Fig. 13.1 and Fig. 13.2 Detail).

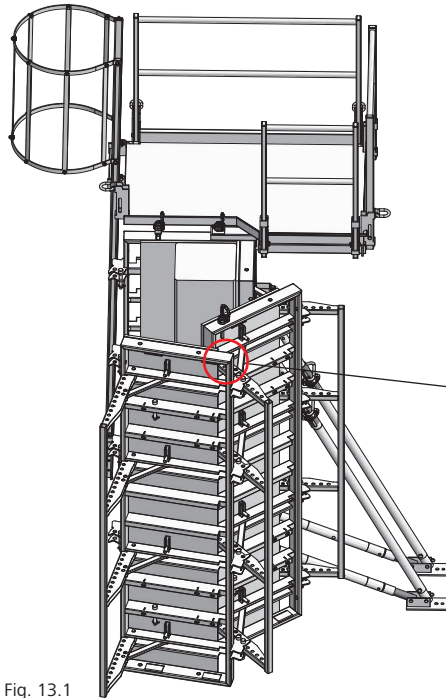


Fig. 13.1

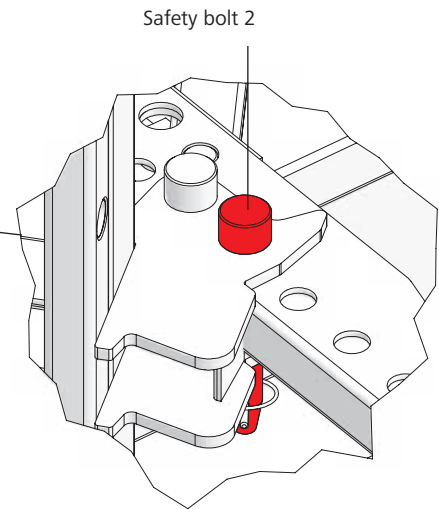


Fig. 13.2 Detail

### Crane ganging

The formwork is moved by crane in one single lift.

1. Attach the crane sling to the transport devices (Fig. 13.3).
2. Clean the formwork and transport it to the next location.
3. Swivel the spanners in and tighten them in order to close the formwork (see page CF-12).

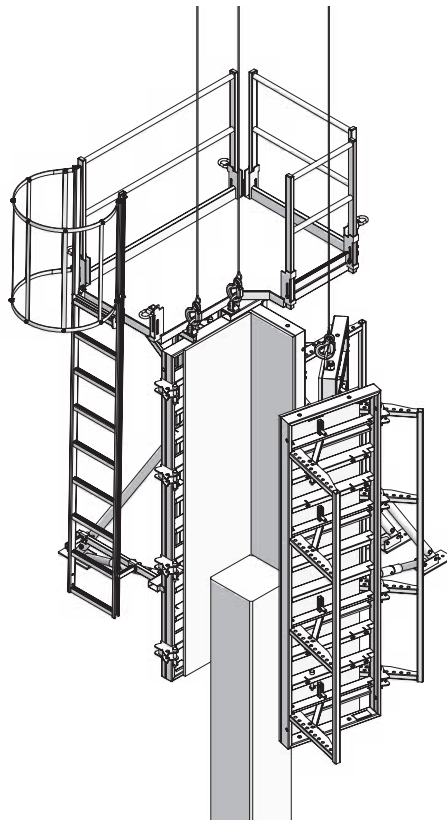


Fig. 13.3

Description	Ref. No.
CF transport device 130.....	29-413-70



## Application – Adjusting the column cross section

The cross section of the column formwork can be adjusted from 20 cm to 60 cm in increments of 5 cm. It can also be adjusted when height-extended and when an access platform is fitted. Figures 14.1 and 14.2 show the column cross section before and after adjustment.

1. Secure the unit with a crane or another suitable device.
2. Remove the safety bolts from the mounting lugs of the perforated profile between the panels.
3. Move the panels one after the other until the new column cross section has been set. The tape measure stamped into the perforated profile (Fig. 14.3) shows the column cross section and makes measuring superfluous.
4. Replace the safety bolts and secure them with linchpins.

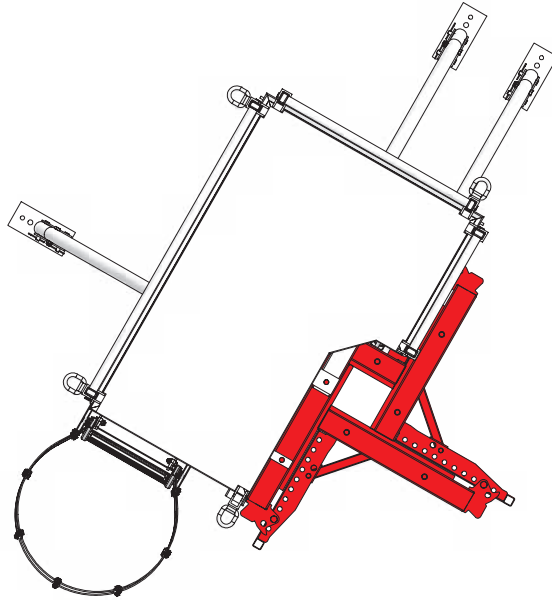


Fig. 14.1

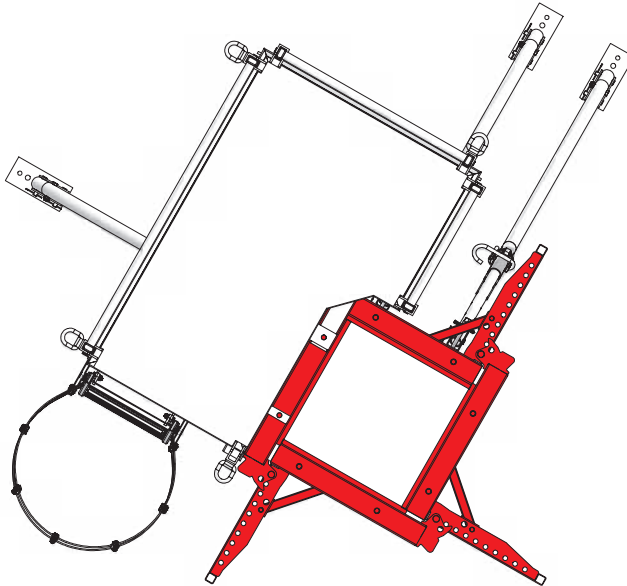


Fig. 14.2

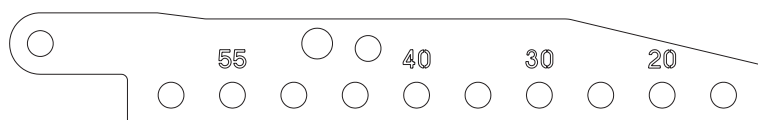


Fig. 14.3

# Application – Cleaning

In order to clean the column formwork, unfold the panels when they are upright. Clean all four forming faces (Fig. 15.1).

The release agent MevaTrenn pro protects the facing and eases stripping. We recommend spraying it onto the facing of the panels before each use and onto the rear and lateral surfaces at regular intervals. This release agent must not be stored in a galvanized container.

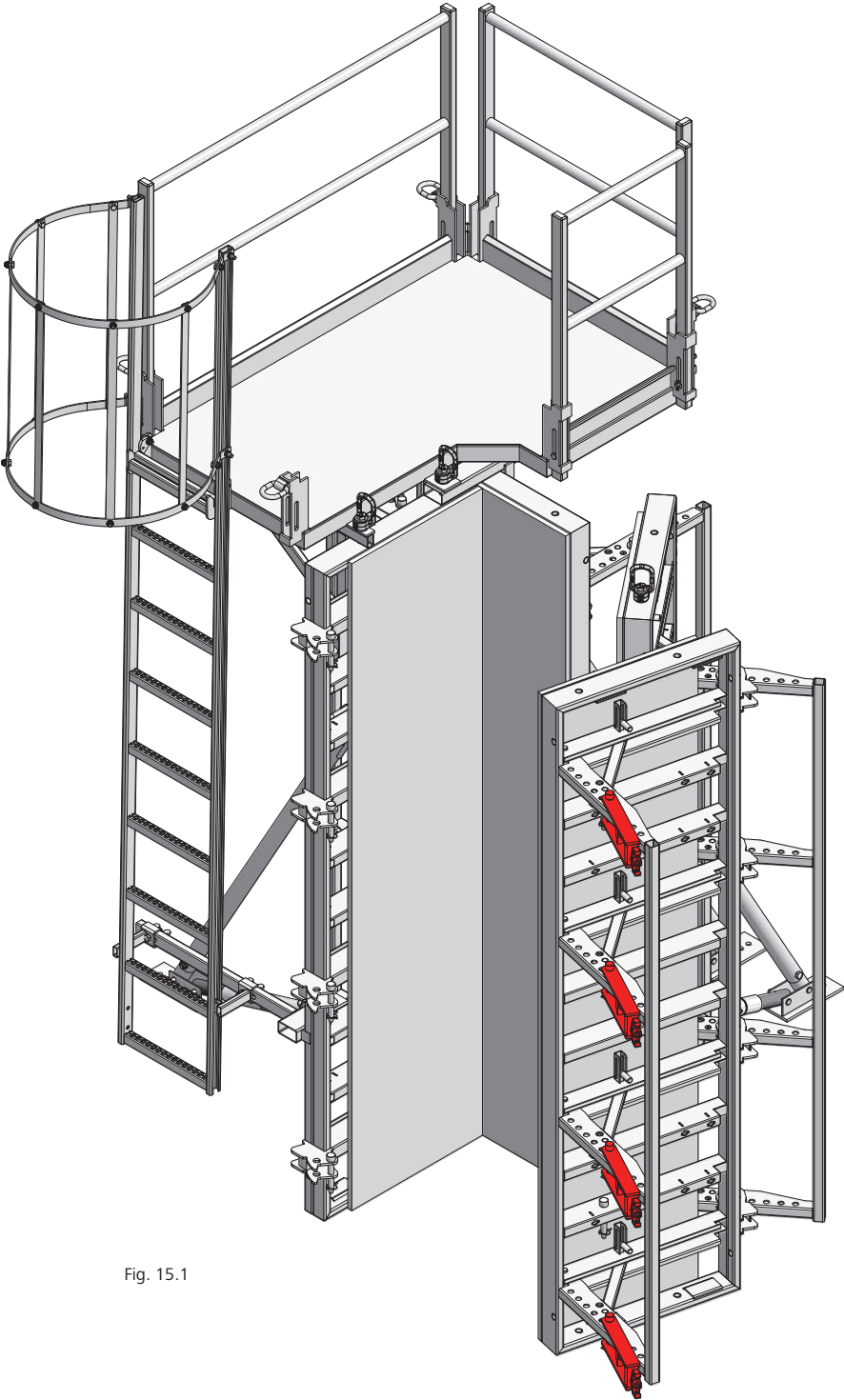


Fig. 15.1

Description	Ref. No.
MevaTrenn pro (20-litre container) .....	29-203-45
(200-litre barrel) .....	29-203-97
(1000-litre barrel) .....	29-203-98
Stainless-steel jet .....	29-203-94
MEVA sprayer .....	29-903-71
Tap for 1000-litre barrel .....	29-203-99

# Horizontal transport with wheels

Column formwork up to a height of 3.60 m can be moved horizontally as a single unit on transport wheels without using a crane (Fig. 16.1 and Detail).

The transport wheels are attached to the formwork frame by means of their integrated head bolts. Four transport wheels are required to move a formwork unit. The transport wheels' spindles are used to lower the wheels onto the ground and thus lift up the column formwork.

**Attention**  
CaroFalt may only be moved on transport wheels by hand. The column formwork must only be moved when closed (Fig. 16.2). Column formwork with a height greater than 3.60 m must always be moved by crane (see page CF-13).

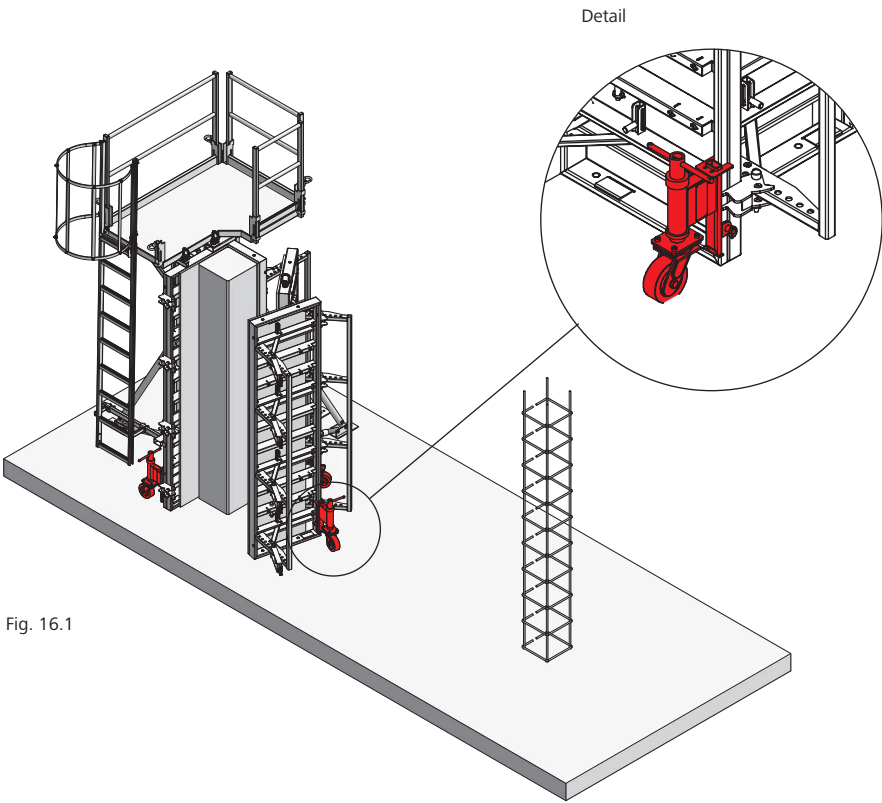


Fig. 16.1

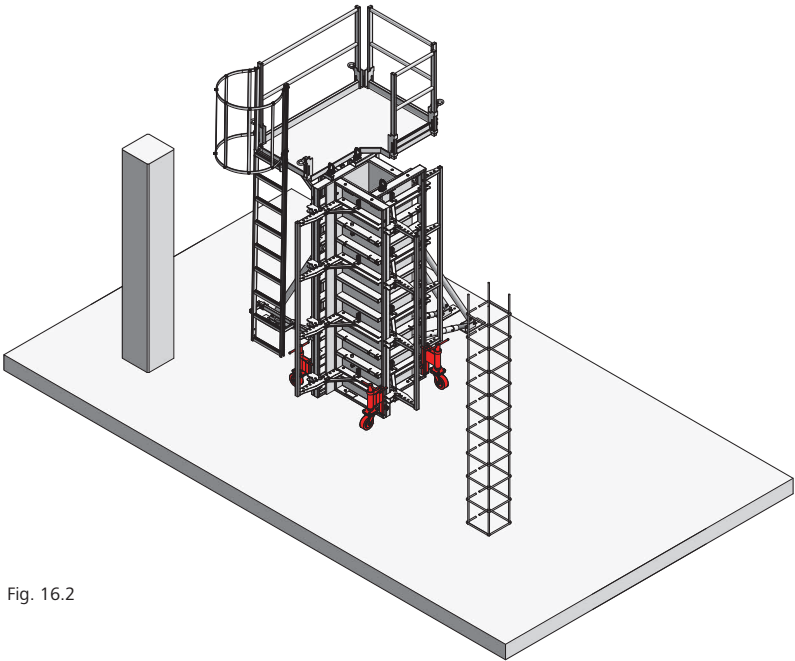


Fig. 16.2

Description	Ref. No.
CF transport wheel .....	29-413-50



## Height combinations – Configurations

- ① Ladder 348
- ② Ladder 318
- ③ Extension ladder 210
- ④ Safety cage 85
- ⑤ Safety cage 210
- ⑥ CF ladder fixture

Raised column panels are connected with eight AS assembly locks per height extension (Figures 17.1 and 17.3)

The parts required for the various column heights are listed in the table on page CF-19.

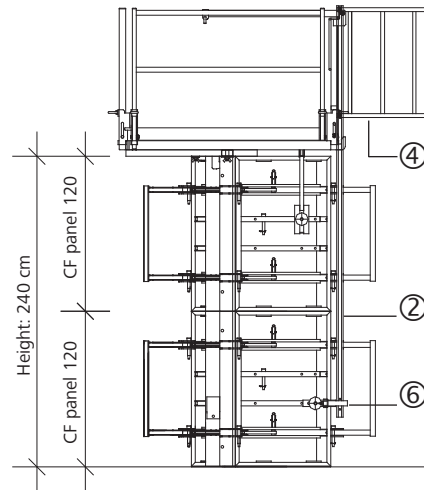


Fig. 17.1

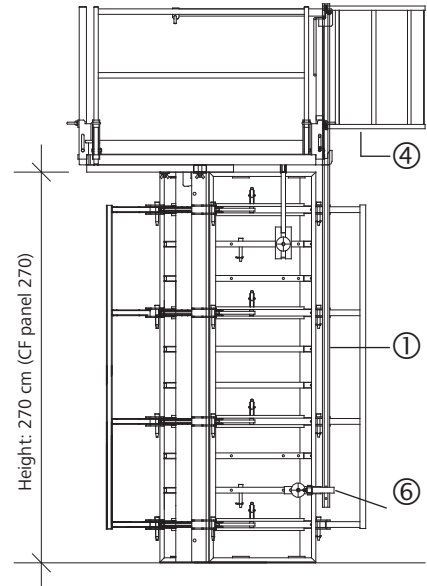


Fig. 17.2

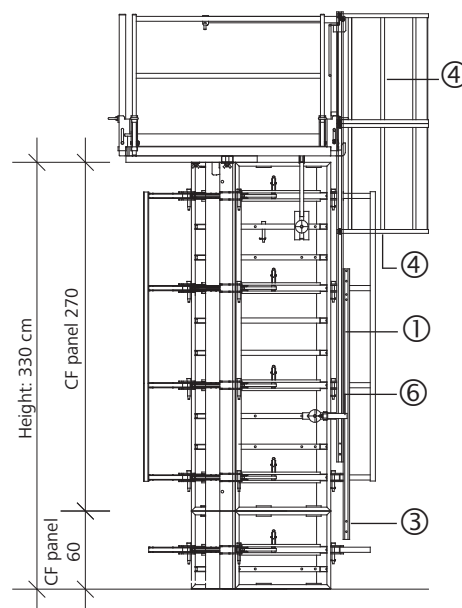


Fig. 17.3

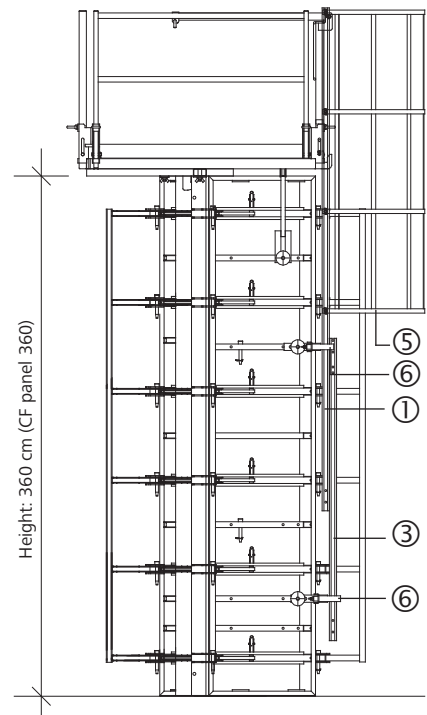


Fig. 17.4

## Height combinations – Configurations

- ① Ladder 348
- ② Ladder 318
- ③ Extension ladder 210
- ④ Safety cage 85
- ⑤ Safety cage 210
- ⑥ CF ladder fixture
- ⑦ Ladder connector

Raised column panels are connected with eight AS assembly locks per height extension (Figures 18.1 to 18.4).

The parts required for the various column heights are listed in the table on page CF-19.

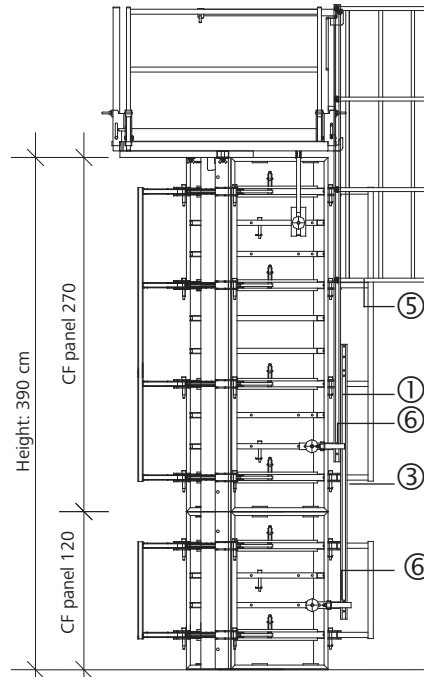


Fig. 18.1

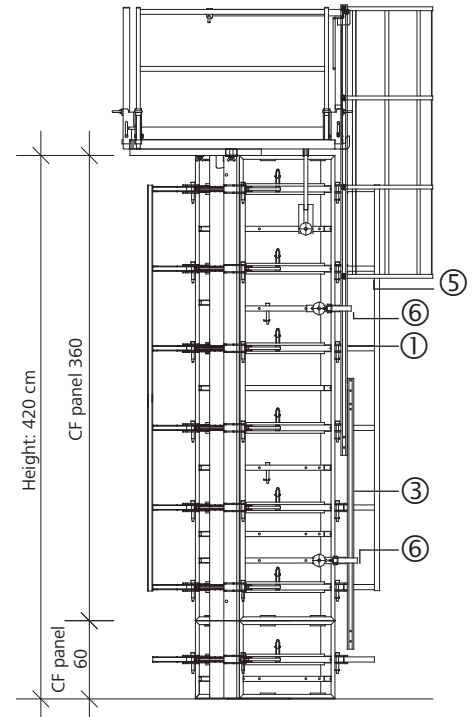


Fig. 18.2

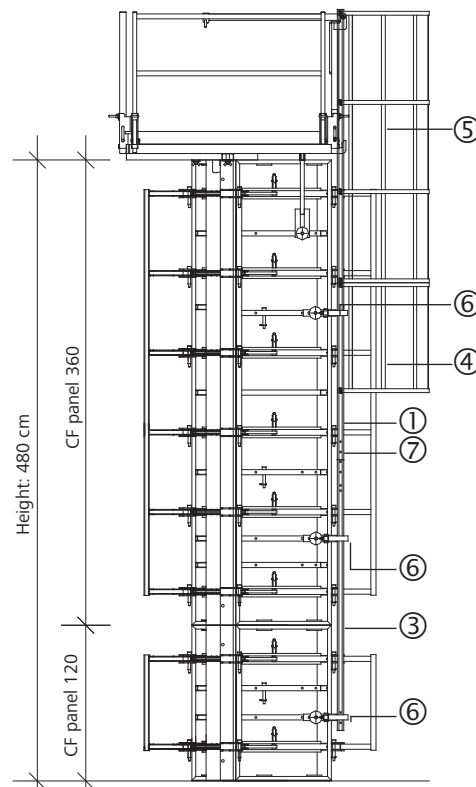


Fig. 18.3

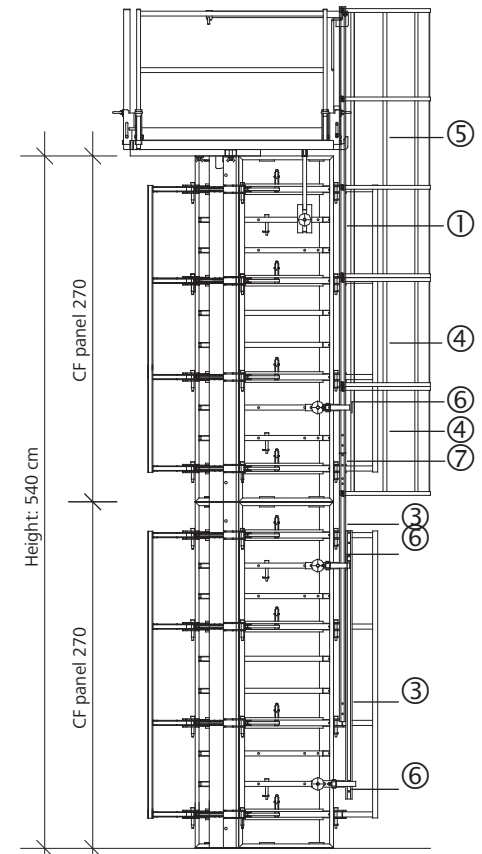


Fig. 18.4

## Height combinations – Parts list

The table shows all items required to assemble the column formwork for the various column heights.

### Attention

Observe the permissible rate of pouring for heights exceeding 3.60 m. This depends on the concrete's consistency and the end of setting. Contact the application engineering experts at MEVA for further details.

The fresh-concrete pressure for vertical formwork according to DIN 18218:2010-01 can be determined easily and precisely with MEVA's online concrete pressure calculator available at [www.meva.net](http://www.meva.net).

Ref. no.	Description	Column height (m)									
		2.40	2.70	3.00	3.30	3.60	3.90	4.20	4.50	4.80	5.10
23-603-10	CF column panel AL 20 360					4		4		4	
23-603-20	CF column panel AL 20 270		4		4		4		4		4
23-603-30	CF column panel AL 20 120	8		8			4		4	4	8
23-603-40	CF column panel AL 20 60			4	4			4	4		
29-413-60	CF steel sheet for sliding	4	4	4	4	4	4	4	4	4	4
29-413-65	CF spanner	4	4	5	5	6	6	7	7	8	8
29-413-50	CF transport wheel	4	4	4	4	4					
29-413-70	CF transport device 130	3	3	3	3	3	3	3	3	3	3
29-205-00	AS assembly lock	8		16	8		8	8	16	8	16
29-414-10	CF access platform	1	1	1	1	1	1	1	1	1	1
29-414-15	CF scaffold bracket	1	1	1	1	1	1	1	1	1	1
29-414-20	CF cantilever angle	1	1	1	1	1	1	1	1	1	1
29-414-25	CF front railing	1	1	1	1	1	1	1	1	1	1
29-401-10	Flange screw 18	8	8	8	9	9	9	9	9	10	10
29-109-20	Brace frame 250 with formwork-prop connector	3	3	3	3						
29-109-60	Push-pull prop R 250					3	3	3	3	3	3
29-109-80	Push-pull prop R 460					3	3	3	3	3	3
29-109-85	Push-pull prop R 630										
29-407-90	Triplex R 300 (right-hand thread) with foot plate										
29-407-93	Triplex R 300 (left-hand thread)										
29-804-85	Formwork-prop connector					6	6	6	6	6	6
29-402-32	Double-jointed foot plate					3	3	3	3	3	3
29-414-50	Ladder 348		1	1	1	1	1	1	1	1	1
29-414-55	Ladder 318	1									
29-414-60	Extension ladder 210				1	1	1	1	1	1	1
29-414-65	CF ladder fixture	1	1	1	2	2	2	2	2	3	3
29-414-70	Ladder connector									2	2
29-414-85	Safety cage 210					1	1	1	1	1	1
29-414-90	Safety cage 85	1	1	1	2					1	1
29-401-44	Crane sling 40	1	1	1	1	1	1	1	1	1	1

Ref. no.	Description	Column height (m)									
		5.40	5.70	6.00	6.30	6.60	6.90	7.20	7.50	7.80	8.10
23-603-10	CF column panel AL 20 360			4	4	4	4	8	4	8	
23-603-20	CF column panel AL 20 270	8	4		4		4		4		12
23-603-30	CF column panel AL 20 120		8	8		8			4		
23-603-40	CF column panel AL 20 60		4			4	4			4	
29-413-60	CF steel sheet for sliding	4	4	4	4	4	4	4	4	4	4
29-413-65	CF spanner	8	9	10	10	11	11	12	12	13	13
29-413-50	CF transport wheel										
29-413-70	CF transport device 130	3	3	3	3	3	3	3	3	3	3
29-205-00	AS assembly lock	8	24	16	8	24	16	8	16	16	24
29-414-10	CF access platform	1	1	1	1	1	1	1	1	1	1
29-414-15	CF scaffold bracket	1	1	1	1	1	1	1	1	1	1
29-414-20	CF cantilever angle	1	1	1	1	1	1	1	1	1	1
29-414-25	CF front railing	1	1	1	1	1	1	1	1	1	1
29-401-10	Flange screw 18	10	10	10	10	10	10	11	11	11	11
29-109-20	Brace frame 250 with formwork-prop connector	3	3	3	3	3	3	3	3	3	
29-109-60	Push-pull prop R 250										3
29-109-80	Push-pull prop R 460	3									
29-109-85	Push-pull prop R 630		3	3	3	3	3	3	3	3	
29-407-90	Triplex R 300 (right-hand thread) with foot plate										3
29-407-93	Triplex R 300 (left-hand thread)										3
29-804-85	Formwork-prop connector	6	6	6	6	6	6	6	6	6	6
29-402-32	Double-jointed foot plate	3	3	3	3	3	3	3	3	3	3
29-414-50	Ladder 348	1	1	1	1	1	1	1	1	1	1
29-414-55	Ladder 318										
29-414-60	Extension ladder 210	2	2	2	2	2	2	3	3	3	3
29-414-65	CF ladder fixture	3	3	3	3	3	3	4	4	4	4
29-414-70	Ladder connector	2	2	2	2	2	2	4	4	4	4
29-414-85	Safety cage 210	1	1	1	2	2	2	2	2	2	2
29-414-90	Safety cage 85	2	2	2				1	1	1	1
29-401-44	Crane sling 40	1	1	1	1	1	1	1	1	1	1

Table 19.1 Parts list

## Storage and Transport

For storage and transport, four frames are placed on top of each other and stored on squared timbers. The stacking height is 48 cm (Figures 20.1 and 20.2).

When stored horizontally, a maximum of three stacks can be placed on top of each other with square timbers in between (Figures 20.3 and 20.4).

These stacks can be transported by forklift truck or by crane.

To move stacked access platforms by crane, a 4-rope crane sling must be attached to the platforms' crane eyes (Fig. 20.5).

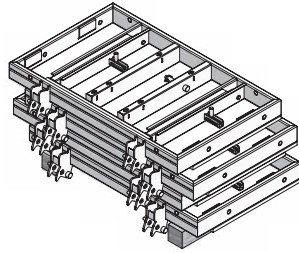


Fig. 20.1

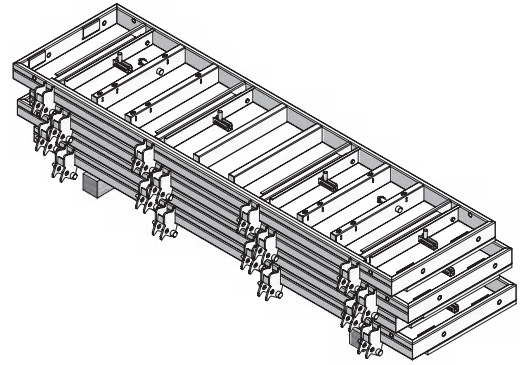


Fig. 20.2

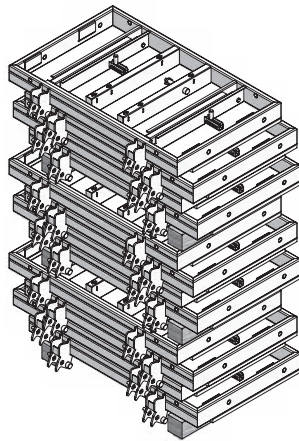


Fig. 20.3

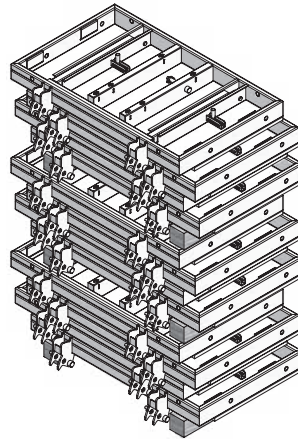


Fig. 20.4

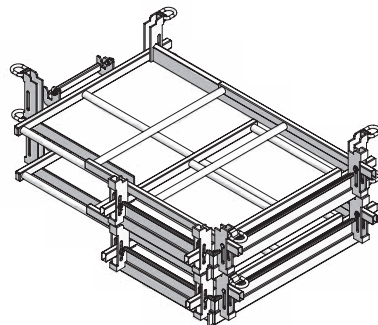


Fig. 20.5



## Transport guidelines

Make sure that all material is secured properly.

### Transport guidelines

Use one ratchet strap per metre of cargo. This means that 14 ratchet straps are required for a fully loaded truck with a trailer length of 13.60 m.

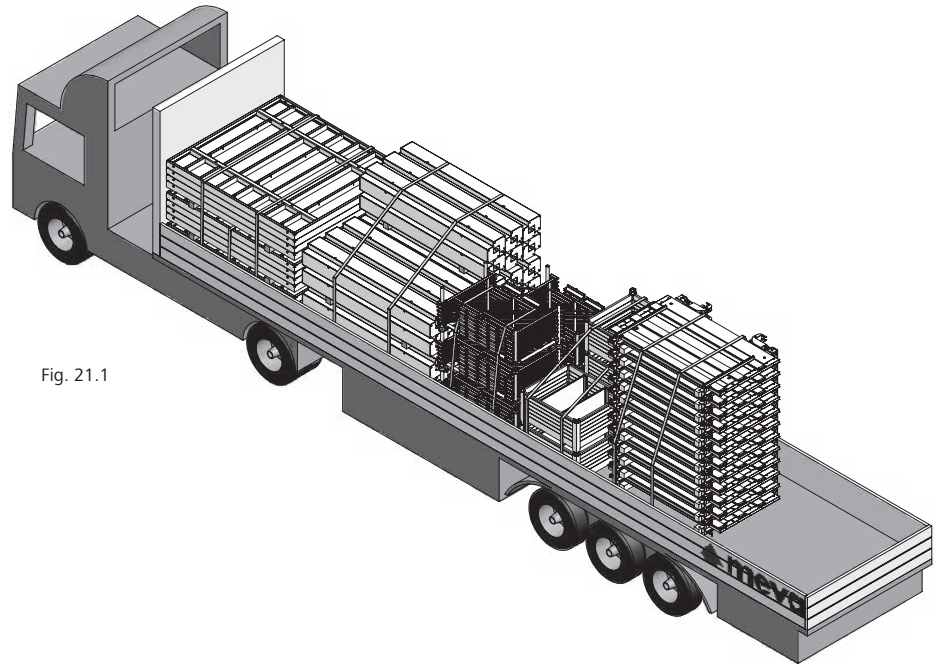


Fig. 21.1

# Column formwork

## Services

### Cleaning

The formwork is cleaned professionally using industrial equipment upon return.

### Reconditioning

Reconditioning is carried out as follows: The frames are checked and, if necessary, blasted, coated with a high-quality cured powder coating, 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 a flat-rate fee MEVA's "fully comprehensive insurance" for rental formwork and equipment covers all secondary costs that occur after return (excludes losses and write-offs). 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.

