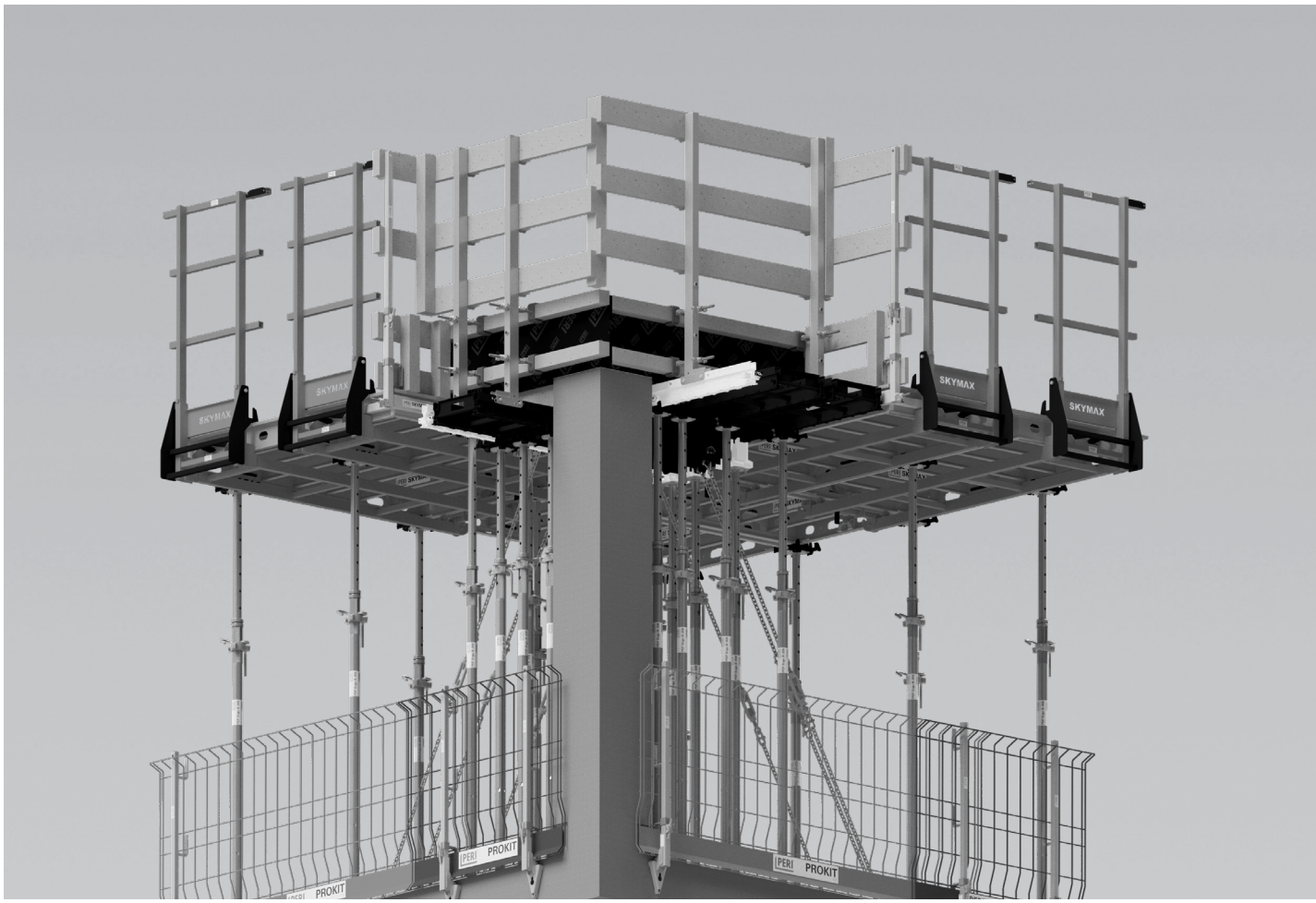
SKYMAX
Outside corner

Instructions for Assembly and Use – standard configuration – Version 1.0



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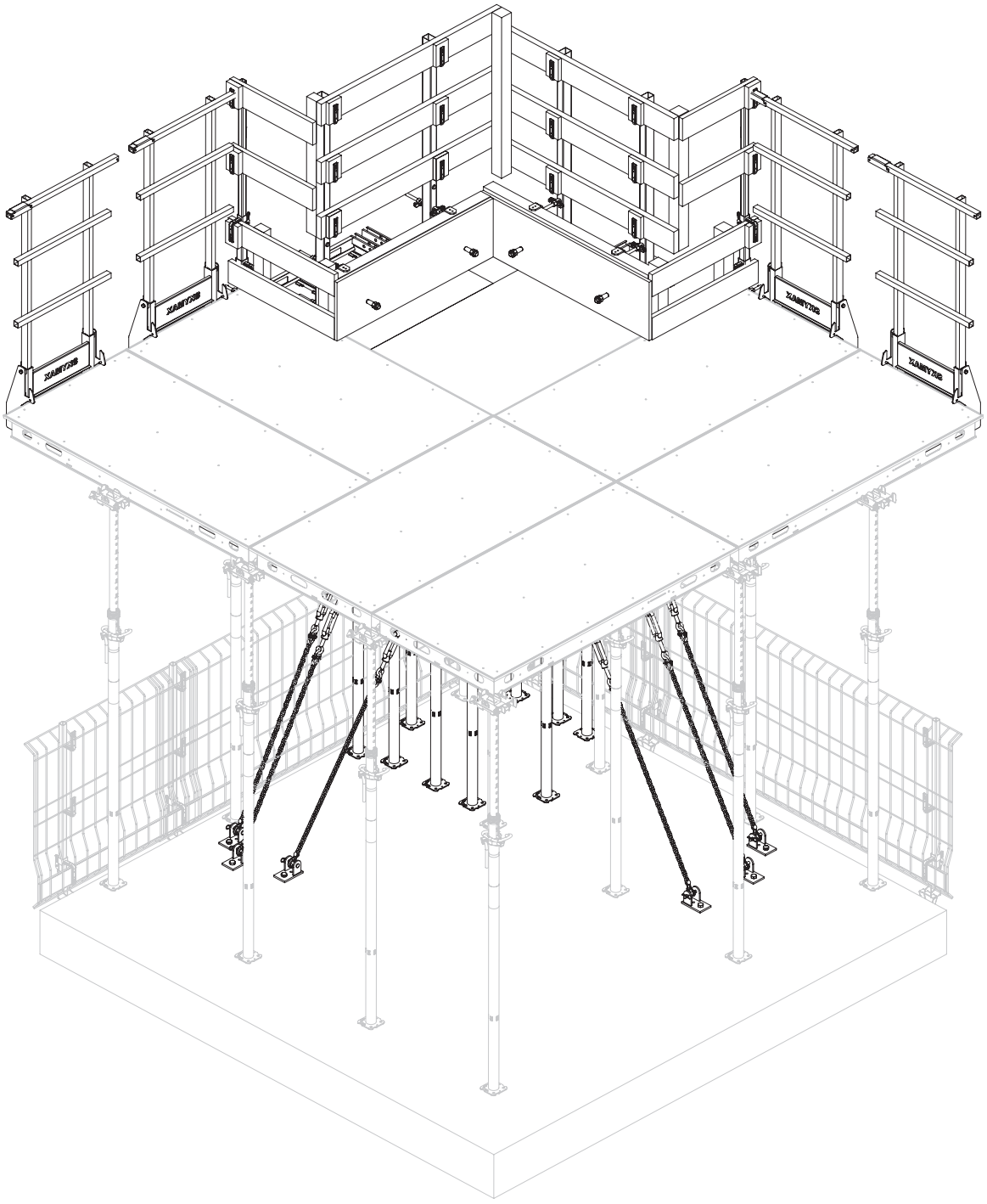
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Program overview

Overview

Main components



1. Compensation frame SXP COF (Page 12)
2. Outside corner support SXP CB (Page 13)
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Key

Pictogram | Definition


Danger/Warning/Caution


Note


To be complied with


Load-bearing point


Visual inspection


Tip


Incorrect use


Safety helmet


Safety shoes


Safety gloves


Safety goggles


Personal protective equipment to prevent falling from a height (PPE)

Arrows

→ Arrow representing an action

⇨ Arrow representing a reaction of an action*

→ Arrow representing forces

* If not identical to the action arrow.

Safety instruction categories
The safety instructions alert site personnel to the risks involved and provide information on how to avoid these risks. Safety instructions can be found at the beginning of the section or before instructions for action and are highlighted as follows:


Danger
This sign indicates an extremely hazardous situation which could result in death or serious, irreversible injury if the safety instructions are not followed.


Warning
This sign indicates a hazardous situation which could result in death or serious, irreversible injury if the safety instructions are not followed.


Caution
This sign indicates a hazardous situation which could result in minor or moderate injury if the safety instructions are not followed.


Note
This sign indicates situations in which failure to observe the information can result in material damage.

Format of the safety instructions


Signal word
Type and source of hazard!
Consequences of non-compliance.
⇒ Preventative measures.

Dimensions
Dimensions are usually given in cm. Other measurement units, e.g. m, are shown in the illustrations.

Conventions
- Instructions are numbered with: 1. ....., 2. ....., 3. .....
- The result of an instruction is shown by: →
- Position numbers are clearly provided for the individual components and are given in the drawing, e.g. **1**, in the text in brackets, for example (**1**).
- Multiple position numbers, i.e. alternative components, are represented with a slash: e.g. **1/2**.

Notes on illustrations
The illustration on the front cover of these instructions is understood to be a system representation only. The assembly steps presented in these Instructions for Assembly and Use are shown in the form of examples with only one component size. They are valid for all component sizes contained in the standard configuration.

To facilitate understanding, detailed illustrations are sometimes incomplete. The safety equipment that might not be shown in these detailed illustrations must nevertheless be available.

Target groups

Contractor
These Instructions for Assembly and Use are designed for contractors who either
- assemble, modify and dismantle PERI systems, or
- use them, e.g. for concreting, or
- allow them to be used for other operations, e.g. carpentry or electrical work.

Competent person
(Construction Site Coordinator)
The Safety and Health Protection Coordinator*
- is appointed by the client,
- must identify potential hazards during the planning phase,
- determines measures that provide protection against risks,
- creates a safety and health protection plan,
- coordinates the protective measures for the contractor and site personnel so that they do not endanger each other,
- monitors compliance with the protective measures.

Competent persons qualified to carry out inspections
Due to the specialist knowledge gained from professional training, professional experience and recent professional activity, the competent person qualified to carry out inspections has a reliable understanding of safety-related issues and can carry out inspections correctly. Depending on the complexity of the inspection to be undertaken, e.g. scope of testing, type of testing or the use of certain measuring devices, a range of specialist knowledge is necessary.

Qualified personnel
PERI systems may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. Qualified personnel must have completed a course of training** in the work to be performed, covering the following points at least:
- Explanation of the plan for the assembly, modification or dismantling of the formwork in an understandable form and language.
- Description of the measures for assembling, modifying or dismantling the formwork.
- Designation of the preventive measures to be taken to avoid the risk of persons and objects falling.
- Designation of the safety precautions in the event of changing weather conditions that could adversely affect the safety of the system, as well as the personnel concerned.
- Details regarding permissible loads.
- Description of all other risks and dangers associated with assembly, modification or dismantling operations.

- **In other countries, ensure that the relevant national guidelines and regulations in the respective current version are complied with!**
- **If no country-specific regulations are available, it is recommended to proceed according to German guidelines and regulations.**
- **A competent person must be present on site during system operations.**

* Valid in Germany: Regulations for Occupational Health and Safety on Construction Sites 30 (RAB 30).

** Instructions are given by the contractor themselves or a competent person selected by them.

Additional technical documentation

- PERI Structural Design Information
  – SKYMAX Large Panel Slab Formwork
- Instructions for Assembly and Use:
  – SKYMAX Large Panel Slab Formwork
  – PEP Ergo Slab Props
  – PEP Alpha-2
  – PEP 20/30
  – PROKIT EP110 Safety Systems
- Instructions for Use:
  – Pallet lifting trolley
  – Pallets and stacking devices
  – Stripping Cart ASW 465
  – Aluminium stripping cart
- Design Tables 2015 – Formwork and Shoring

Intended use

Area of application
PERI products have been designed for exclusive use in the industrial and commercial sectors only by suitably trained personnel.

These Instructions for Assembly and Use only show the application of the outside corner. For a clearer presentation, the entire slab system is not shown.

The application of the slab system is described in the Instructions for Assembly and Use for the SKYMAX large panel formwork.

Product description
With the SKYMAX outside corner solution, the principle of safe shuttering from "below" (safe working area) in the slab formwork system has been pursued and emphasised.
The system offers a safe solution for shuttering from "below" in the corner area of a building with and without a column. Recessed columns can be solved with SKYMAX outside corner components, provided certain rules are observed.
All formwork elements are made of aluminium and, thanks to their low weight, allow safe working without the need for a crane.

The outside corner slab formwork is assembled and disassembled from the erection surface. Up to a ceiling height of 3.80 m without a ladder or platform system.

Technical data
System dimensions

Outside corner solution:
- System dimension of outside corner between 1.20 m and 1.50 m.
- Up to slab thickness ≤ 40 cm.
- Adjoining panel system: aluminium version only.
- Use of steel prop head and offset support head.
- Use PERI slab props (PEP Ergo, PEP Alpha-2, PEP 20/30) with the same performance as the adjacent panel system (or better).

Instructions for Use

Use in a way not intended, deviating from the standard configuration or the intended use according to the Instructions for Assembly and Use, represents a misapplication with a potential safety risk, e.g. risk of falling.

Only PERI original components may be used. The use of other products and spare parts is not allowed and represents a misapplication with associated safety risks.

Changes to PERI components are not permitted.

The system described in these Instructions for Assembly and Use may contain patent–protected components.

Cleaning and maintenance instructions

Warning
Splintering parts/concrete residue could cause injuries to the eyes and hands.
⇒ Wear protective goggles.
⇒ Wear safety gloves.

In order to maintain the value and operational readiness of the formwork materials over the long term, clean the panels after each use.
Some repair work may also be inevitable due to the tough working conditions.
The following instructions should help to keep cleaning and maintenance costs as low as possible.

Spray the formwork on both sides with concrete release agent before each use; this facilitates easier and faster cleaning of the formwork. Spray the concrete release agent very thinly and evenly!

Spray the rear side of the formwork with water immediately after concreting; this avoids any time-consuming and costly cleaning operations.

When used continuously, spray the formlining elements with concrete release agent immediately after deshuttering; then clean by means of a scraper, brush or rubber lip scraper.
Important: do not clean formlining made of plywood with high-pressure equipment. This could result in the formlining being damaged.

Fix recesses and built-in parts with double-headed nails; as a result, the nails can easily be removed later, and damage to the formlining is largely avoided.

Close all unused tie holes with plugs; this eliminates any subsequent cleaning or repair work.
Tie holes accidentally blocked with concrete are cleared by means of a steel pin from the formlining side.

When placing bundles of reinforcement bars or other heavy objects on horizontally stored formwork elements, suitable support, e.g. squared timbers, is to be used: this prevents impressions and damage to the formlining to a large extent.

Internal concrete vibrators should be fitted with rubber caps if possible; as a result, any damage to the formlining is reduced if the vibrator is accidentally inserted between the reinforcement and formlining.

Never clean powder-coated components, e.g. elements and accessories, with a steel brush or hard metal scraper; this ensures that the powder coating remains intact.

Use spacers for reinforcement with large-sized supports or extensive areas of support; this largely avoids impressions being formed in the formlining when under load.

Mechanical components, e.g. spindles or gear mechanisms, must be cleaned of dirt or concrete residue before and after use, and then greased with a suitable lubricant.

Provide suitable support for the components during cleaning so that no unintentional change in their position is possible.

Do not clean components suspended on crane lifting gear.

Cross-system

Safety instructions apply to all service life phases of the system.

General
The contractor must guarantee that the Instructions for Assembly and Use supplied by PERI are available at all times and understood by the site personnel.

These Instructions for Assembly and Use can be used as the basis for creating a risk assessment. The risk assessment is compiled by the contractor. The Instructions for Assembly and Use do not replace the risk assessment!

Observe and comply with the safety instructions and permissible loads.

For the application and inspection of PERI products, the current safety regulations and guidelines valid in the respective countries must be observed.

Materials and working areas are to be inspected before each use and assembly for:
- damage,
- stability and
- function.

Damaged components must be exchanged immediately on site and may no longer be used.

Safety components are to be removed only when they are no longer required.

When on slab formwork, scaffolds and working platforms:
- do not jump,
- do not run,
- do not drop anything from or onto it.

Components provided by the contractor must comply with the characteristics stipulated in these Instructions for Assembly and Use and all applicable laws and standards. Unless otherwise indicated, the following applies in particular:
- Timber components:
  Strength class C24 for solid wood according to EN 338.
- Scaffolding tubes:
  Galvanised steel tubes with minimum dimension Ø 48.3 x 3.2 mm according to EN 12811-1:2003 4.2.1.2.
- Scaffolding tube couplings:
  according to EN 74-1 and EN 74-2.

Deviations from the standard configuration are only permitted after a further risk assessment has been carried out by the contractor.

Appropriate measures for working and operational safety, as well as stability, are defined on the basis of this risk assessment.

Corresponding proof of stability can be provided by PERI on request, if the risk assessment and resulting measures to be implemented are made available.

Nails and wood screws must not protrude. Only allow other connecting components to protrude to the extent that is necessary.
If necessary, mark protruding components or fit them with protective material.
Secure all bolts with cotter pins and all screws with nuts

Before, during and after extraordinary events that may have damaging effects on the safety of the system, the contractor must immediately
- produce another risk assessment, the results of which must be used to implement suitable measures to avert danger to persons and to ensure the stability of the system,
- arrange for an extraordinary inspection to be carried out by a competent person qualified to do so. The aim of this inspection is to detect and repair damage in good time in order to ensure the safe use of the system.

Exceptional events could be:
- accidents,
- long periods of non-use,
- natural events, e.g. heavy rainfall, icing, heavy snowfall, storms or earthquakes.

Safety instructions

Assembly, modification and dismantling work
PERI systems may only be assembled, modified or dismantled under the supervision of a person qualified to do so and by technically suitable employees. The qualified personnel must have received appropriate training for the work to be carried out with regard to specific risks and dangers.

On the basis of the risk assessment and Instructions for Assembly and Use, the contractor must create installation instructions, in order to guarantee safe assembly, modification and dismantling of the climbing unit.



The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the climbing formwork, e.g.
- safety helmet,
- safety shoes,
- safety gloves,
- safety goggles,

is available and used as intended.

For work at a higher level, use an approved ladder or platform system, or an assembly scaffold.



If personal protective equipment against falling from a height (PPE) is required or specified in local regulations, the contractor must determine appropriate attachment points on the basis of the risk assessment.
The PPE to be used to prevent falling is determined by the contractor.

The contractor must
- provide safe working areas for site personnel, which are to be reached through the provision of safe access ways. cordon off and clearly mark danger zones.
- guarantee stability during all stages of construction, in particular during assembly, modification and dismantling operations.
- ensure and demonstrate that all loads that occur are safely transferred.

Use
Every contractor who uses or allows the PERI systems to be used, is responsible for ensuring that the equipment is in good condition.

If the system is used successively or at the same time by several contractors, the health and safety coordinator must point out any possible mutual hazards and all work must be then coordinated.

When systems are used in publicly accessible areas,
- measures to prevent unauthorised use, e.g. enclosure of access areas, must be taken.
- Measures are taken against injuries caused by bumping against protruding components, e.g. assembly of protective components.

Always keep the contact surfaces of the system free of dirt, objects, snow and ice.
Close off the system in extreme weather conditions.

System-specific

Deshutter components only when the concrete has sufficiently hardened and the person in charge has given the go-ahead for deshuttering to take place.

The load-bearing capacity of the slabs that have been completed must be activated so as to avoid overloading of the slab props during vertical concreting cycles. For this, free deflection capability is required for these components. This can be done by releasing and re-installing all slab props available. This is also required for formwork systems where the prop head is an integral part of the slab formwork.

Permissible slab thickness:
Max. 40 cm.

For bracing, anchor chains 3.0 kN are used together with base plates-3 for RS 210 – 1400 and suitable concrete dowels.

When storing heavy items on the formwork, the load-bearing capacity must be taken into consideration.

Cantilevers are not allowed to be entered until the bracings have been installed.

The horizontal fixed position of the slab formwork must be guaranteed during assembly and work operations at all times. During assembly, this is provided through the correct installation of wall holders/chain bracings.

During operation, the transfer of horizontal loads must be ensured by bracings. Load assumptions for horizontal loads in accordance with DIN EN 12812.

Do not climb on the formwork system, only use the means of ascent and descent provided.

Anchoring
Anchoring is to take place only if the anchorage has sufficient concrete strength.

Exceptional events
In accordance with the SKYMAX panel slab formwork, the outside corner components must also be connected to one another at wind speeds of 28 km/h or more and, if necessary, secured against lifting by additional bracing in the edge area or ballasting.
The value given is valid for rectangular buildings that are open on all sides or closed on one side.
For unfavourable structure geometries or greater wind speeds, additional securing measures are to be implemented including the dismantling of the formwork.

Slab Props
For the outside corner, use PERI slab props with the same or better performance as for the adjacent panel system.

A1 Compensation frame SXP COF

The compensation frame SXP COF (**1**) consists of powder-coated aluminium sections and bolting strips. In addition, two telescopic pin rods are integrated for filler areas. (Fig. A1.01 + Fig. A1.02)

Formwork panels are installed with bolts into the integrated bolting strip (**1.1**).
The bolting strip (**1.1**) can be moved, if necessary, by removing the side bolts and screwing them back into the bolting strip (**1.1**) at the new position to fix it.

1.1	Bolting strip
1.2	Bolts for bracing on the edge profile
1.3	Prop head support system distance
1.4	Bolts for bracing in the centre of the frame
1.5	Assembly lock mounts SXP AS
1.6	Grip holes
1.7	Telescopic pin rods for filler areas
1.8	Stake-out hole for outside corner post
1.9	Cross tubes
1.10	Shuttering trough
1.11	Edge profile
1.12	Transverse profile
1.13	Prop head support
1.14	Linch pin assembly lock
1.15	Cotter pin telescopic pin rod

View from both sides

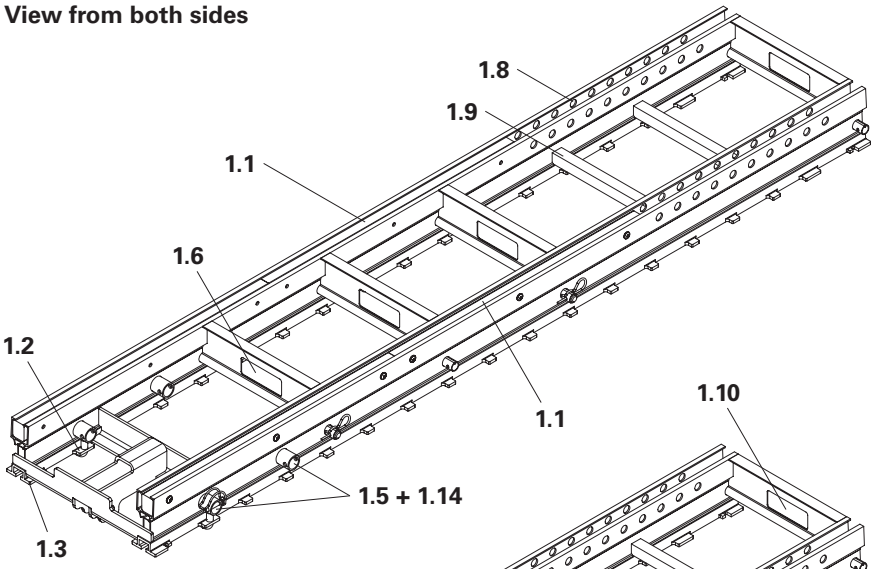


Fig. A1.01

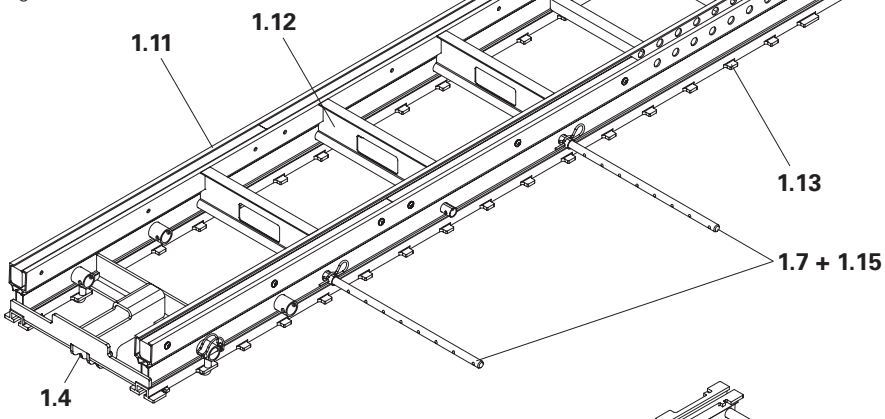


Fig. A1.02

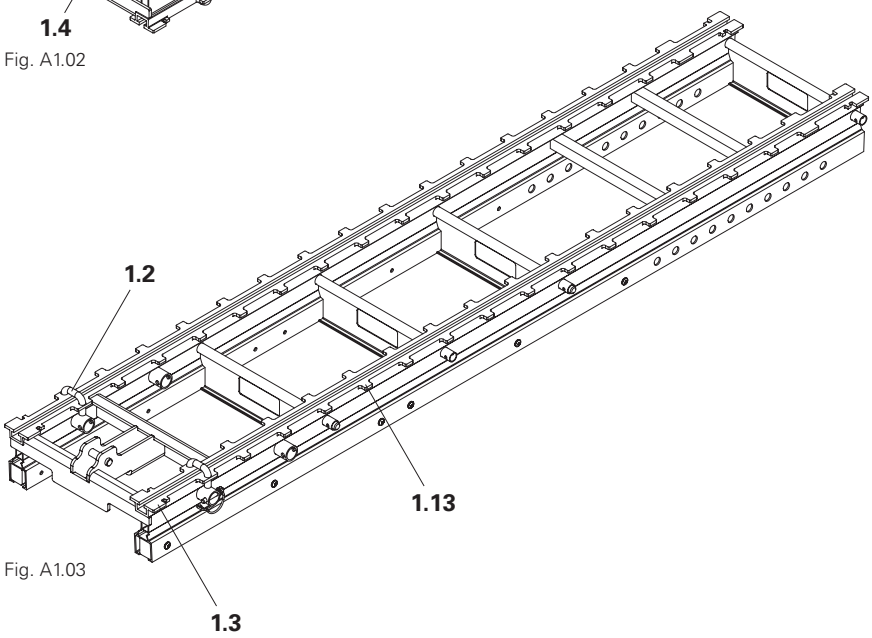


Fig. A1.03

A2 Outside corner support SXP CB

Note

Outside corner supports SXP CB (**2**) or outside corner double supports (**2.10**) SXP CB must not be swung up individually. They are only allowed to be swung up in conjunction with the compensation frame SXP COF or assembly lock SXP AS.

The outside corner support SXP CB (**2**) consists of an aluminium section with bolting strip (**2.1**) and is used for shuttering residual gaps. Formwork panels are installed with bolts into the integrated bolting strip (**2.1**). The outside corner support SXP CB (**2**) can only be used in combination with the compensation frame SXP COF or assembly lock SXP AS. (Fig. A2.01 + Fig. A2.02)

Formwork panels are installed with bolts into the integrated bolting strip (**2.1**).

2.1 Bolting strip
2.2 Bolts for bracing
2.3 Prop head support system distance
2.4 Connecting fixtures for compensation frames
2.5 Assembly lock mounts SXP AS
2.6 Double girder connections
2.7 Prop head support
2.8 Stake-out holes for outside corner posts
2.9 Edge profile
2.10 Outside corner double support
2.11 Linch pin connecting fixture
2.12 Linch pin double girder connection

View from both sides

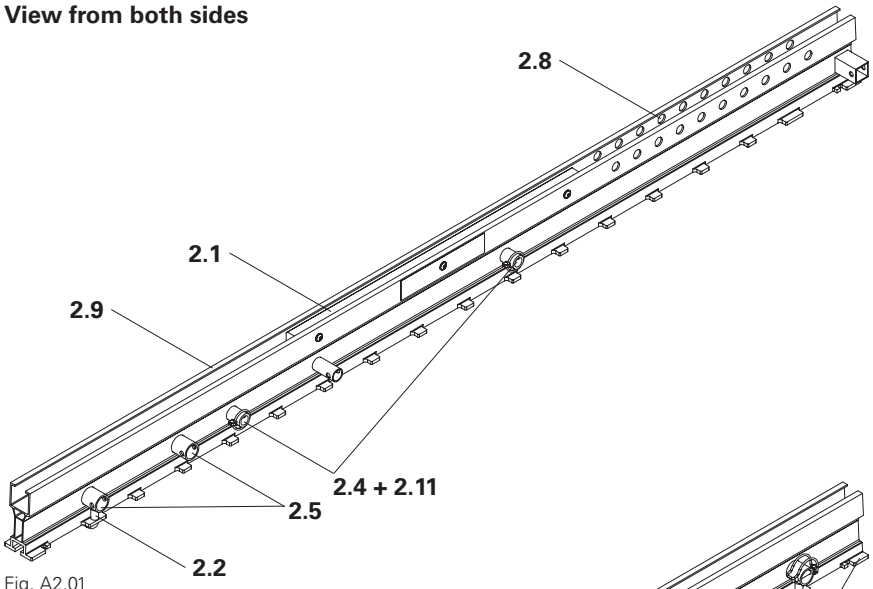


Fig. A2.01

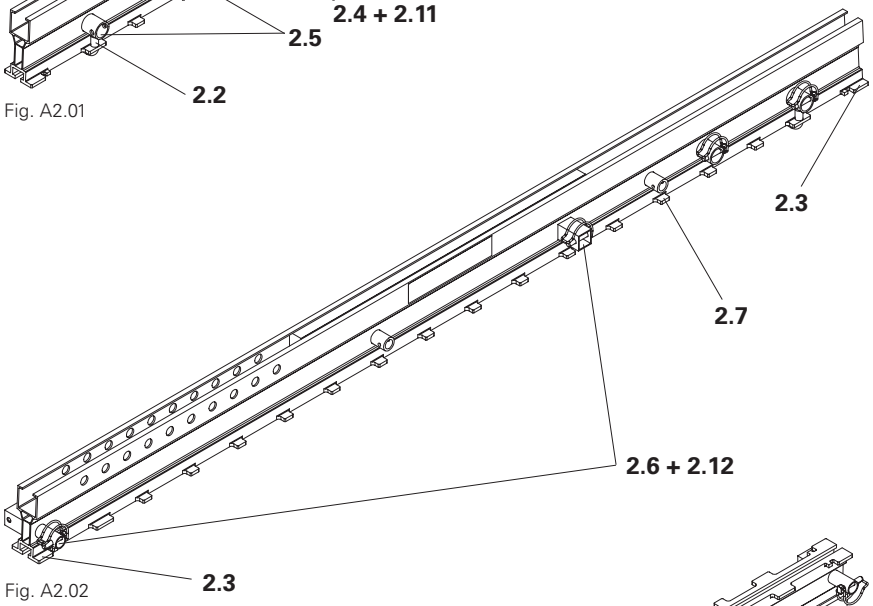


Fig. A2.02

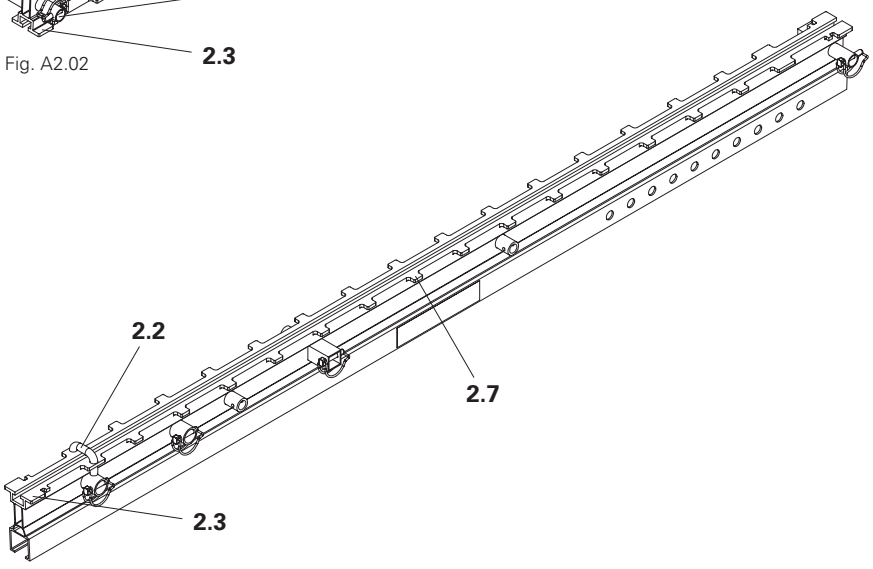


Fig. A2.03

A2 Outside corner support SXP CB

Assembly outside corner double support

To make an outside corner double support (**2.10**) out of two outside corner supports SXP CB (**2**):

1. On both outside corner supports SXP CB (**2**), remove the linch pins for double girder connection (**2.12**) from the double girder connections (**2.6**).
2. Insert both outside corner supports SXP CB (**2**) into one another in the double girder connections (**2.6**).
3. Secure all connections with linch pin for double girder connection (**2.12**). (Fig. A2.04 + Fig. A2.04a+ Fig. A2.04b)

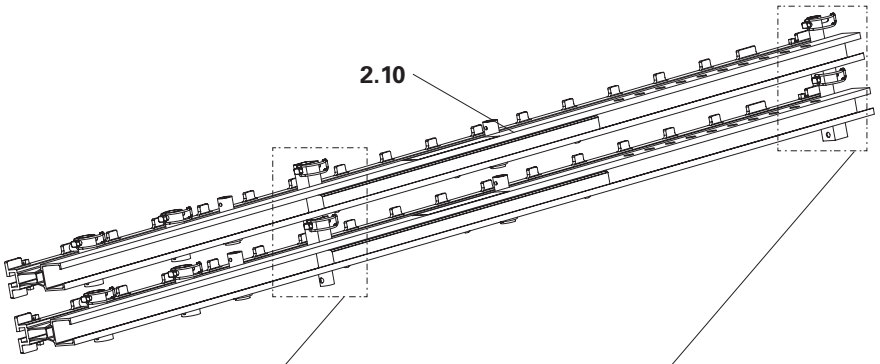


Fig. A2.04

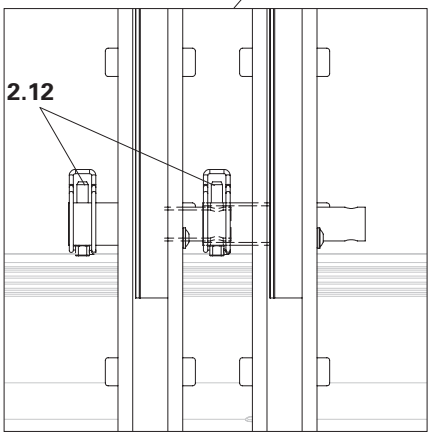


Fig. A2.04a

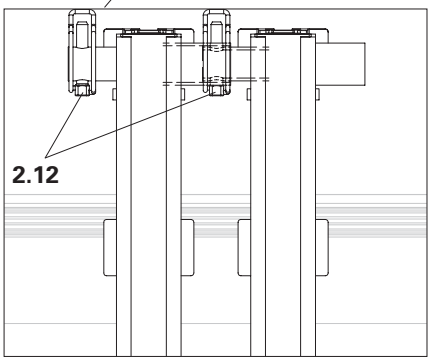


Fig. A2.04b

A3 Outside corner post SXP CP

Note
Never climb on the guardrail.

The outside corner post SXP CP (**3**) is installed on the outside corner support SXP CB or compensation frame SXP COF in the stake-out holes provided, with 2 bolts.
(Fig. A3.01 + Fig. A3.02)

The assembly is carried out in the suspended state from the outside corner support SXP CB.

3.1	Lateral protection mount
3.2	Mounting hole
3.3	Stop end formwork shoe
3.4	Lock nut
3.5	Bolt fixation
3.6	Wood mount
3.7	Securing nut

Assembly
Assembly example on a compensation frame SXP COF:
Position the outside corner post SXP CP (**3**) as close as possible to the slab edge. Select the position so that there is sufficient distance for attaching the stop end formwork, min. 101 mm (squared timber (**14**) 80 x 80 mm + stop end formwork 21 mm) from the outside edge of the building to the wood mount shoe. (Fig. A3.03)
The assembly of the outside corner post SXP CP (**3**) on the outside corner support SXP CB is the same as the assembly on the compensation frame SXP COF (**1**).

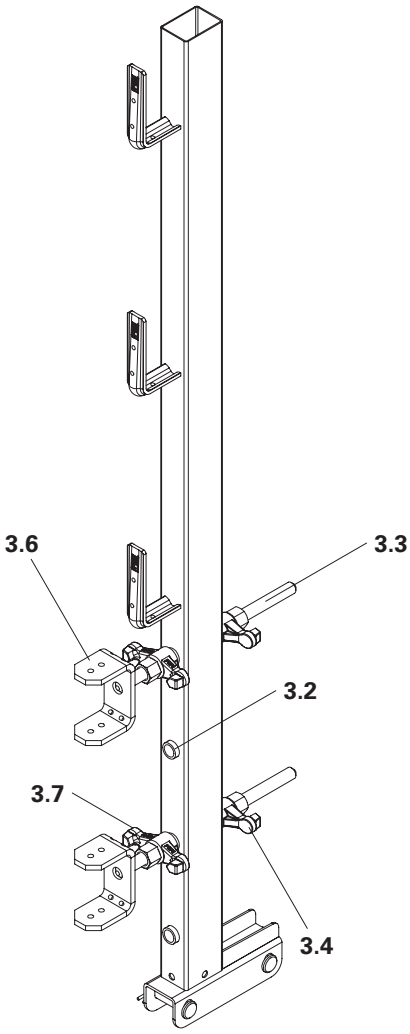


Fig. A3.01

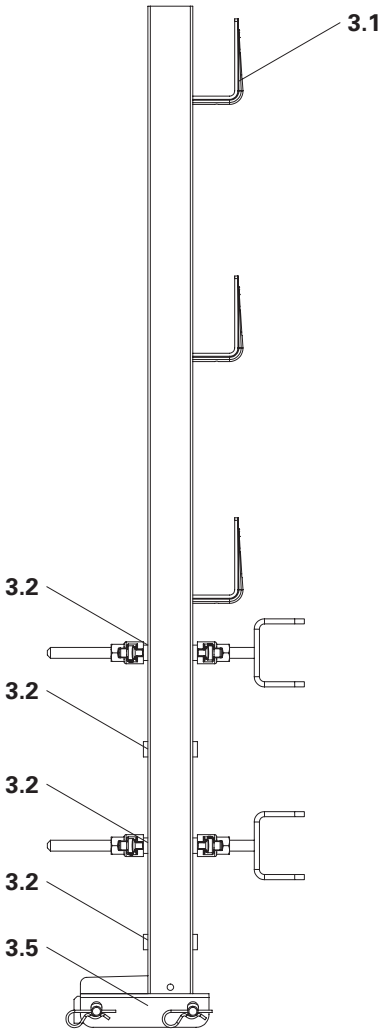


Fig. A3.02

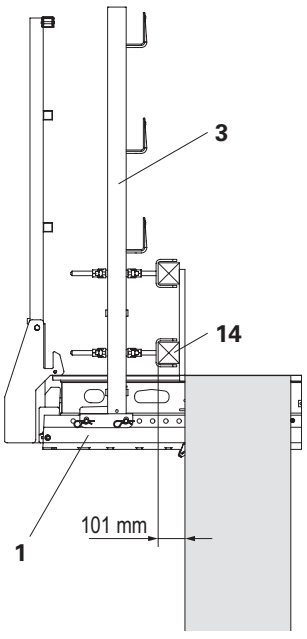


Fig. A3.03

A3 Outside corner post SXP CP

Before installing the outside corner post SXP CP (**3**), make sure to adjust the height of the stop end formwork or the slab thickness beforehand. To do this, push the wood mounts (**3.6**) into the desired mounting holes (**3.2**). See examples (Fig. A3.04 to Fig. A3.07)

For elements in the upper level (are set up first)

Slab thickness 20 – 34 cm

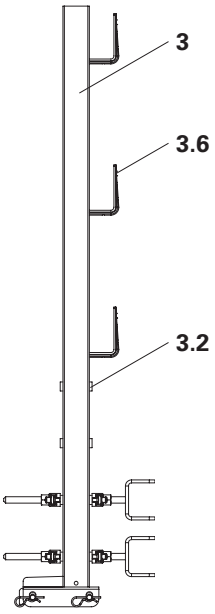


Fig. A3.04

Slab thickness 35 – 40 cm

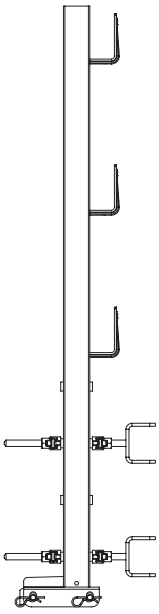


Fig. A3.05

For elements in the lower level (are set up last)

Slab thickness 20 – 34 cm



Fig. A3.06

Slab thickness 35 – 40 cm

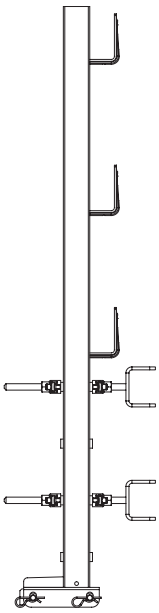


Fig. A3.07

A4 Offset support head SXP OH

The offset support head SXP OH (**4**) fits on slab props with end plates 120 x 120 mm and a thickness of 6 – 8 mm, e.g. PEP slab prop. (Fig. A4.01)
The offset support head SXP OH (**4**) is installed on the prop with four bolts (M12x30-8.8) and four nuts (M12-8). Tightening torque: 90 Nm.
(Fig. A4.02)

Offset support head SXP OH is only used with SKYMAX outside corner and in combination with compensation frame SXP COF.
It is only allowed to be positioned underneath the first compensation frame SXP COF and is used to hold the compensation frame SXP COF or the outside corner support SXP CB.

4.1 Bearing plate
4.2 Hook block
4.3 Mounting edge profile compensation frame (upper level)
4.4 Mounting edge profile compensation frame/outside corner support (lower level)

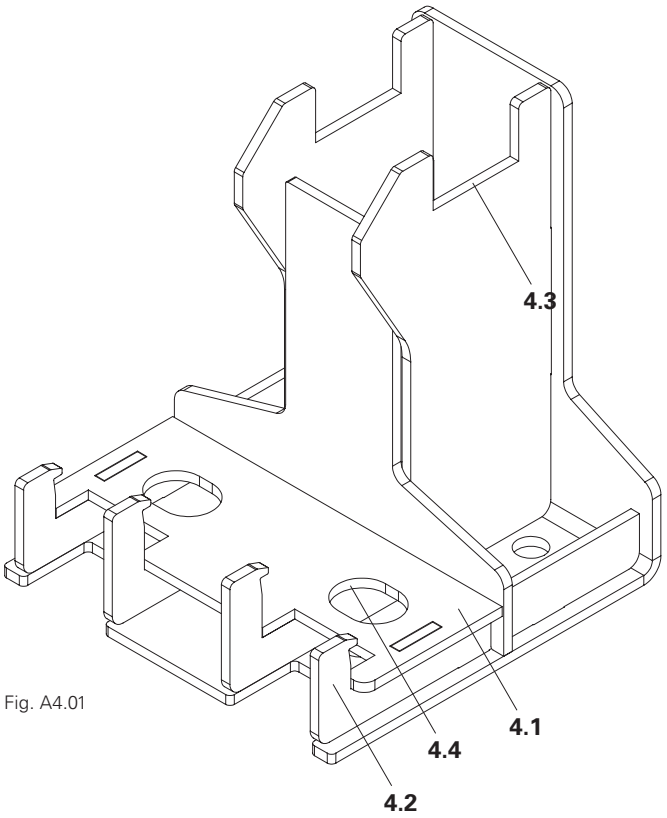
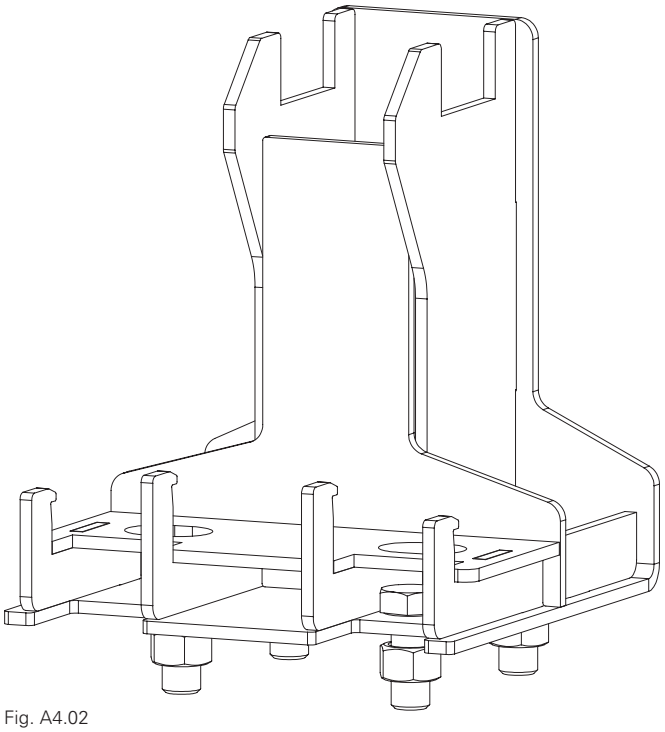


Fig. A4.01


Fig. A4.02

A5 Height compensation SXP HC

The telescopic height compensation SXP HC (**5**) consists of aluminium sections and serves as a support for the formwork panel. (Fig. A5.01 + Fig. A5.02)

Height compensation SXP HC is only allowed to be used in combination with compensation frame SXP COF and outside corner support SXP CB.
Do not use cantilever, supporting at 5.1 and 5.4 required.

5.1 Prop head support
5.2 Telescoping holes
5.3 Locking pins
5.4 Nail holes
5.5 Formwork panel support

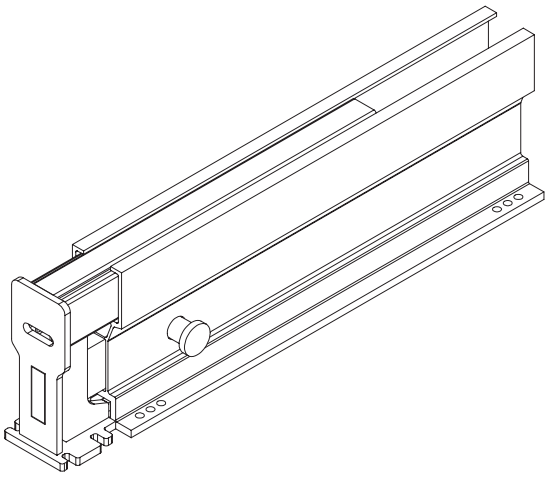


Fig. A5.01

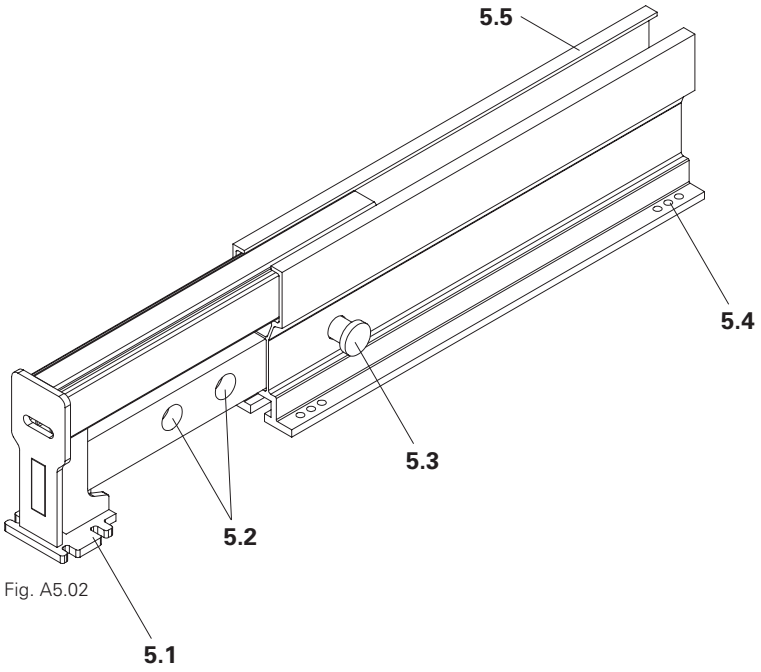


Fig. A5.02

A6 Assembly lock SXP AS

The assembly lock SXP AS (**6**) serves as a connecting aid for the compensation frame SXP COF and the outside corner support SXP CB. (Fig. A6.01) The assembly lock SXP AS prevents the girders from tipping out of the prop heads when swivelling up.

6.1 Assembly bracing
6.2 Positioning hole

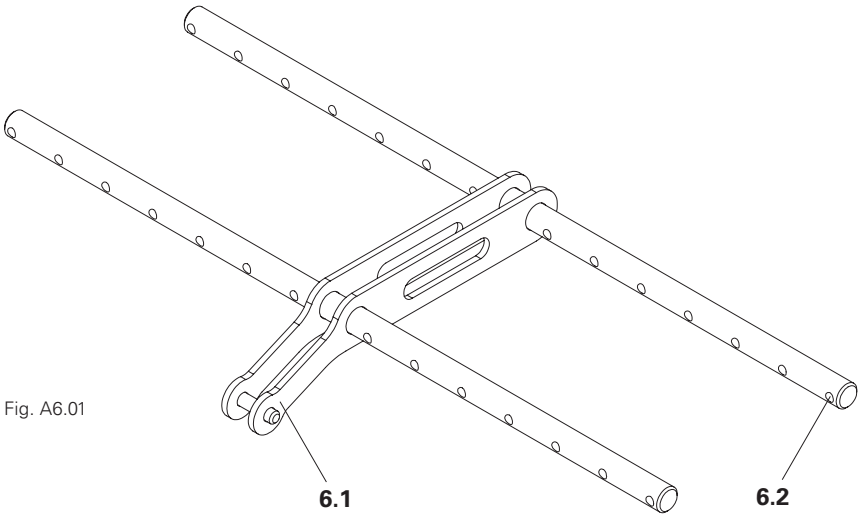


Fig. A6.01

B1 General boundary conditions for all assemblies

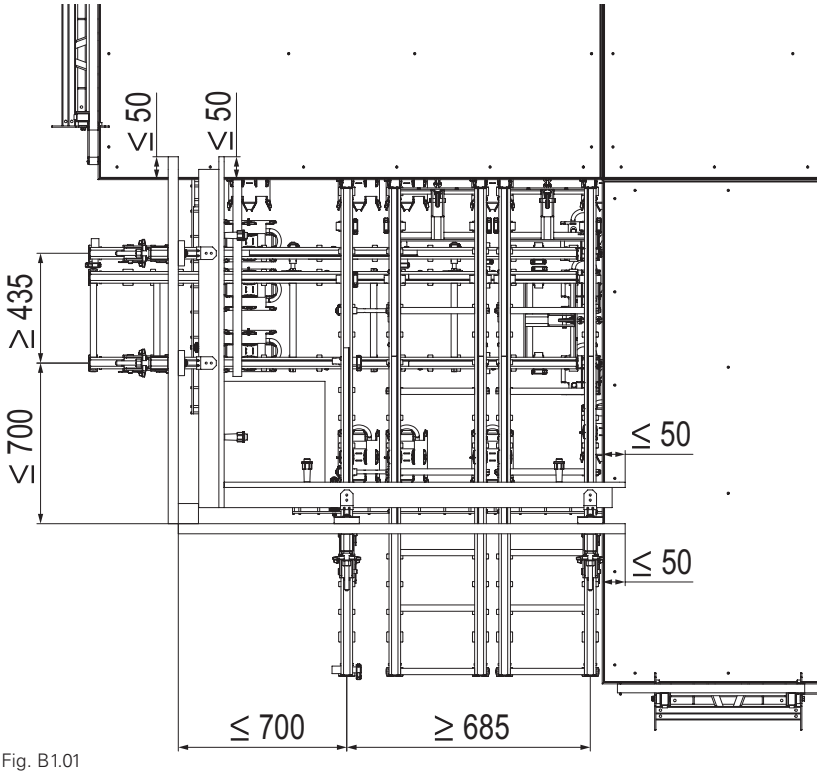


Fig. B1.01

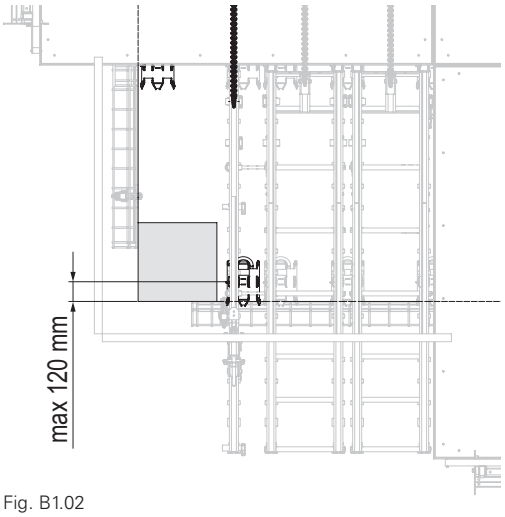


Fig. B1.02

Attention, the outside corner solution only works if the following rules are observed:

- Maximum projection of the projecting elements 800 mm (**C**) and (**X**). (Fig. B2.01 on page 21)
- Minimum projection of the projecting elements 500 mm (**C**) and (**X**). (Fig. B2.01 on page 21)
- Maximum distance between girder profiles 300 mm. (Fig. B2.01a on page 21)
- Maximum distance of the projecting formlining to the column, see Section "Installing guardrail, formlining and stop end formwork" on page 39.
- Maximum projection of the projecting guardrail boards at the outside corner is 700 mm.
- Two outside corner posts SXP CP per side, minimum distance between one another:
  upper level ≥ 685 mm
  lower level: ≥ 435 mm.
- Guardrail boards: 15 cm x 4 cm or 12 cm x 4 cm (remainder must be filled in the hook).
- Stop end formwork beams 80 mm x 80 mm.
- The following applies to all slab props of the outside corner at the edge: set up a maximum of 120 mm from the edge.
- Maximum projection of the guardrail boards on the inside: ≤ 50.

B2 Outside corner solution with column on the edge

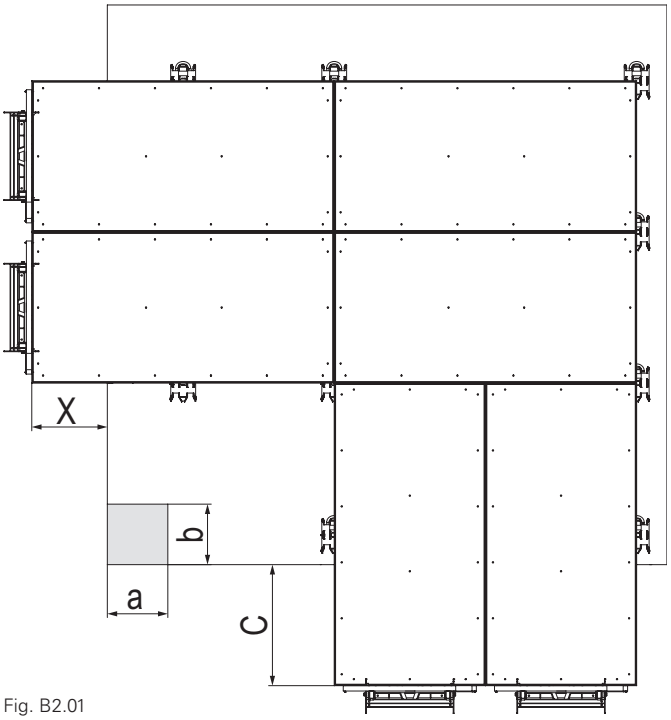


Fig. B2.01

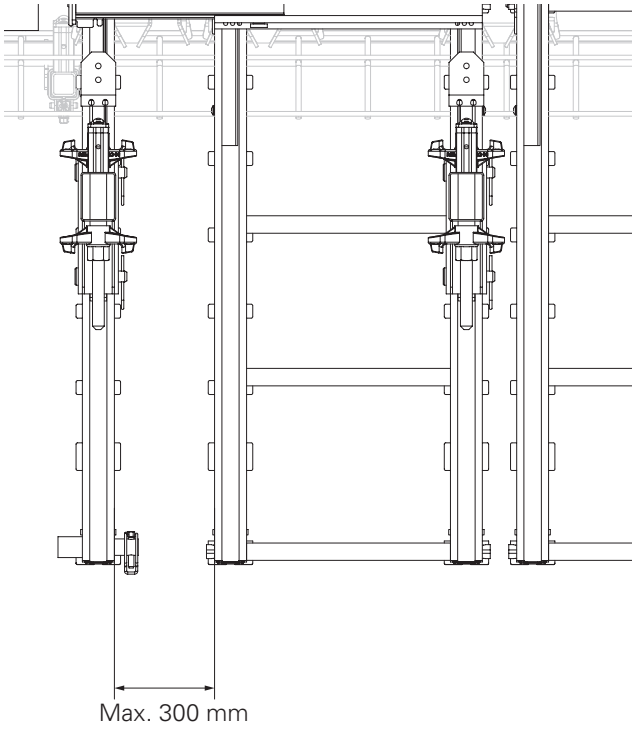


Fig. B2.01a

Attention, the outside corner solution only works if the following rules are observed:

- Minimum column 200 mm (**a**) and (**b**).
- With cantilever 500 – 749 mm (**C**) and (**X**) → column max. 450 mm (**a**) and (**b**).
- With cantilever 750 – 800 mm (**C**) and (**X**) → column max. 400 mm (**a**) and (**b**).

(Fig. B2.01)

B3 Outside corner solution with recessed column

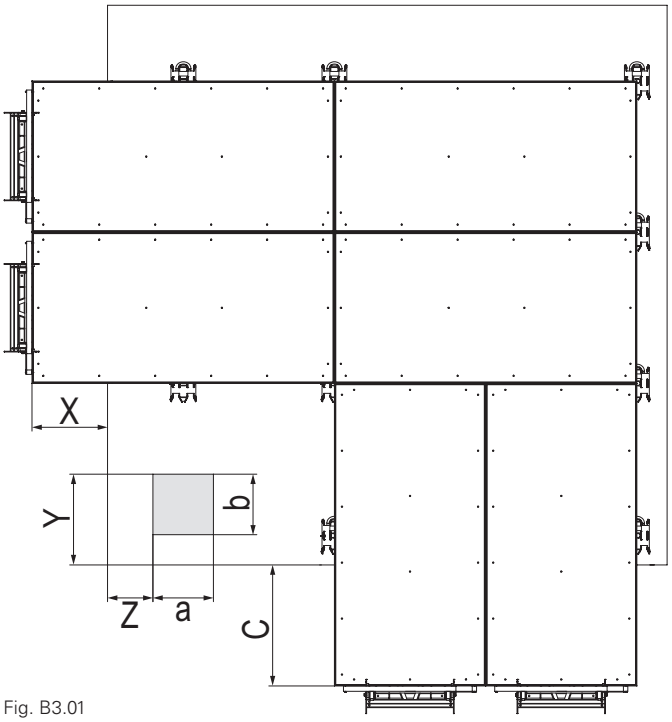


Fig. B3.01

Attention, the outside corner solution only works if the following rules are observed:

Column at least 200 mm (**a**) and (**b**).
Column maximum 500 mm (**a**) and (**b**).

- Element cantilever 800 mm (**X**).
  → Outside edge of column max. 700 mm (**Y**).
- Element cantilever 500 mm (**X**).
  → Outside edge of column max. 1000 mm (**Y**).
- Minimum distance from outside edge of building to inside edge of column 200 mm (**Z**).

(Fig. B3.01)

C1 Column directly on the edge – upper level

- For a better overview, the mesh barrier is hidden in the first assembly steps.
- Always start directly next to panel (**X**) with a compensation frame SXP COF (**1**).

1. Install the prop head SXP S (**9**) on the props (**10**).
2. Set up props (**10**) as preparation. Use the first prop (**10a**) from the existing assembly. Position the second prop (**10b**) so that the compensation frame SXP COF (**1**) can be hooked in.
3. Hang the compensation frame SXP COF (**1**) with 3.0 kN bracing chains (**11**) (on the bolt in the centre of the frame) into the two prop heads SXP S (**9**).
4. Slightly pre-tension the central 3.0 kN bracing chains (**11**) at 60°. Attach to the existing structure with base plate for push-pull prop and with suitable concrete dowel. (Fig. C1.01)

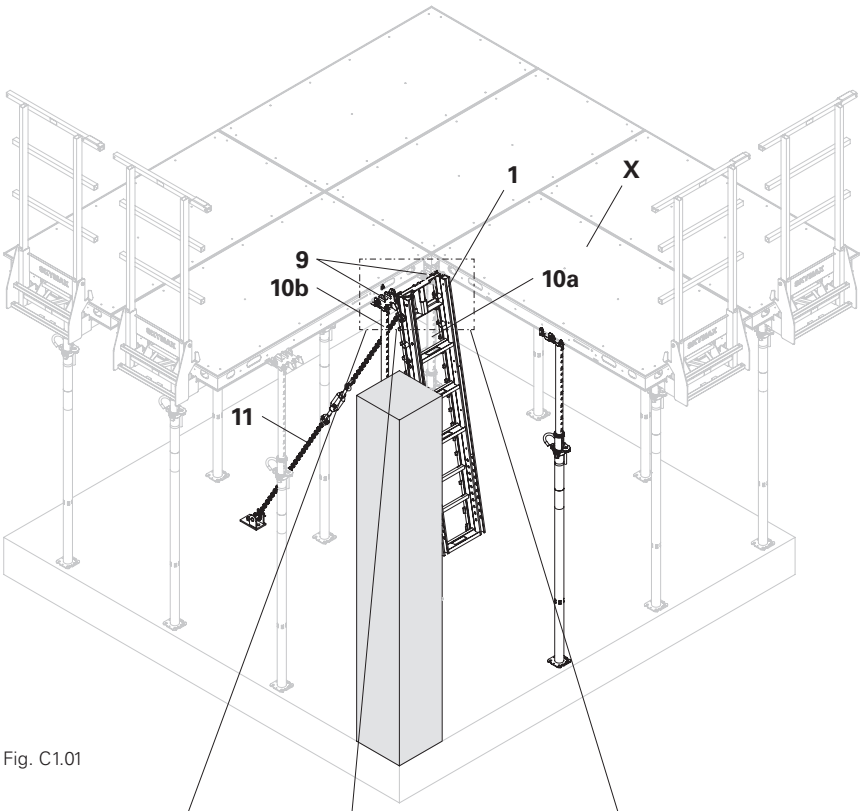


Fig. C1.01

Check that the compensation frame SXP COF (**1**) is correctly seated in the prop head SXP S (**9**).

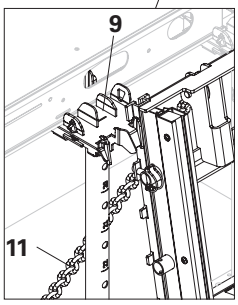


Fig. C1.01a

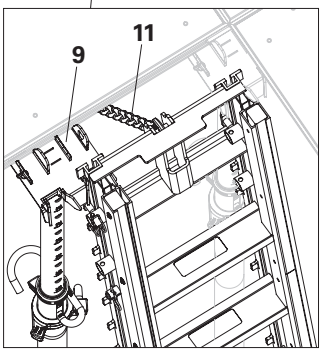


Fig. C1.01b

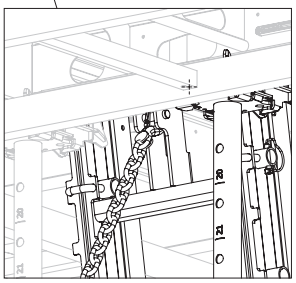


Fig. C1.01c

C1 Column directly on the edge – upper level

5. Mount outside corner post SXP CP (**3**) on the suspended compensation frame SXP COF (**1**). (Assembly, see Section "A3 Outside corner post SXP CP" on page 15.) Install the outside corner post SXP CP (**3**) on the side of the compensation frame SXP COF (**1**) that is closer to the SKYMAX panel of the existing SKYMAX system.
6. Swing up the compensation frame SXP COF (**1**) with the help of the shuttering aid SXP A (**8**) in the trough of the last cross strut.
7. Support with the recessed prop (**10a**) from the standard panel and further prop (**10b**) at the leading edge. The compensation frame in the upper level must have a fixed connection (prop (**10a**)) to the adjacent panel in the transverse direction. (Fig. C1.02 +Fig. C1.02a + Fig. C1.02b)

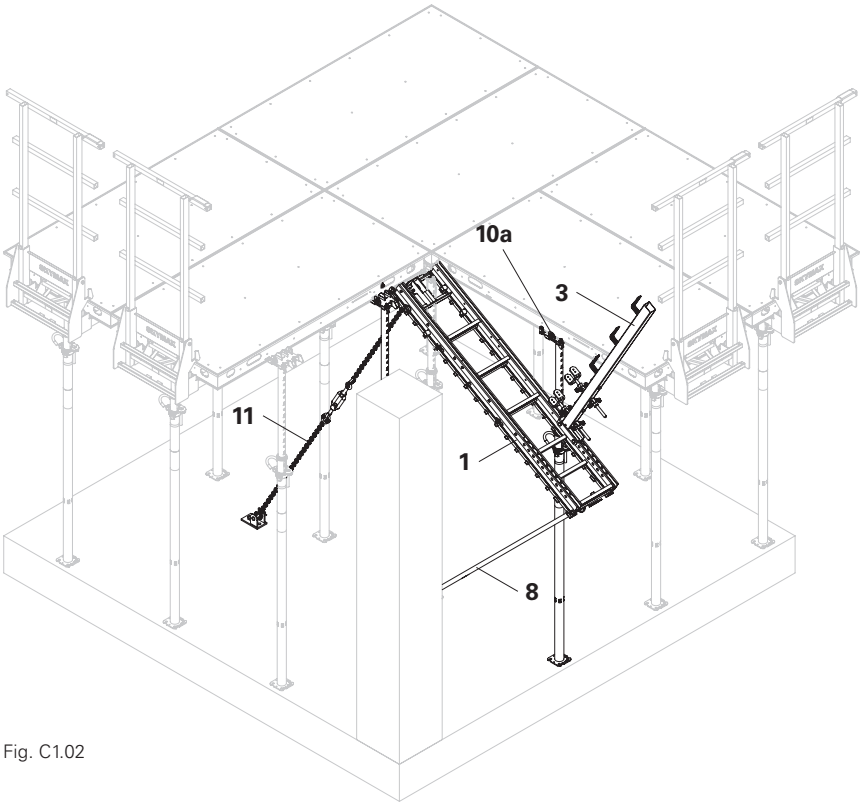


Fig. C1.02

If it is difficult to swing up the compensation frame SXP COF (**1**), the bracing chain (**11**) can be loosened slightly. After swinging up and supporting the compensation frame SXP COF (**1**), immediately tighten the bracing chain (**11**) again. (Fig. C1.02 + Fig. C1.02a + Fig. C1.02b)

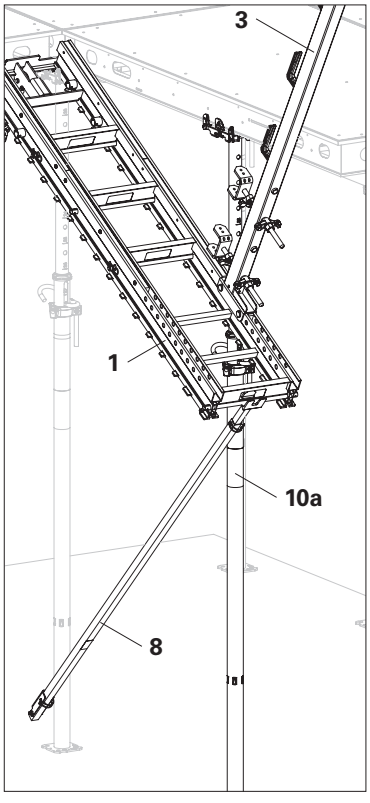


Fig. C1.02a

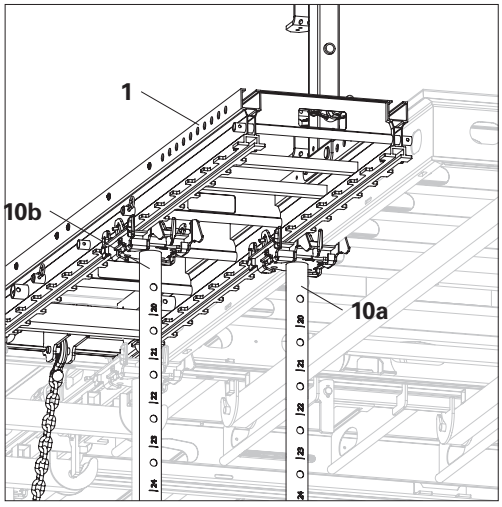


Fig. C1.02b

C1 Column directly on the edge – upper level

8. Ensure that the recessed prop head is securely in place and supports the compensation frame SXP COF (**1**).
9. Remove the shuttering aid SXP A (**8**).
10. Tighten the bracing chain (**11**) firmly.
    → Compensation frame SXP COF (**1**) is swung up with the prop heads supported directly at the edge to the standard panels and tensioned at 60° with a 3 kN bracing chain (**11**). (Fig. C1.03)

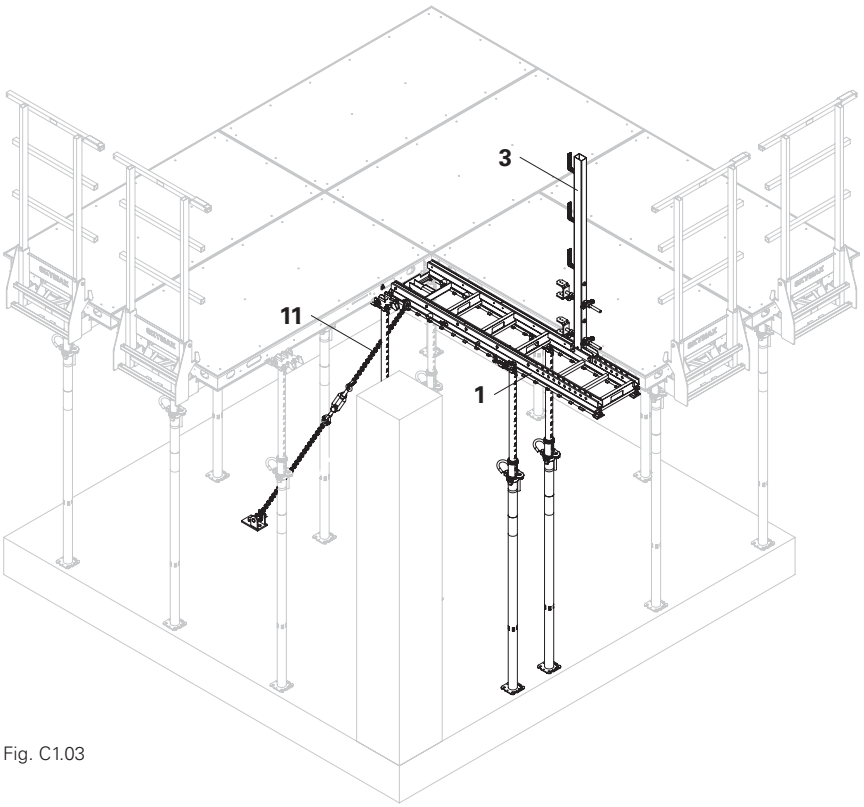


Fig. C1.03

C1 Column directly on the edge – upper level

Pre-assembly: connect compensation frame SXP COF to outside corner support SXP CB

1. Place compensation frame SXP COF (**1**) and the outside corner support SXP CB (**2**) next to one another so that they cannot tip over. Use trestles if possible. (Fig. C1.04)
2. Pull out the cotter pin from the telescopic pin rod (**1.15**) on the compensation frame SXP COF (**1**) and pull out the pin rods that are located inside. (Fig. C1.05 + Fig. C1.05a)
3. Pull out the linch pin of the connecting fixture (**2.11**) on the outside corner support SXP CB (**2**) and push telescopic pin rods of the compensation frame SXP COF (**1**) through, then secure with the linch pin of the connecting fixture (**2.11**). (Fig. C1.05 + Fig. C1.05b + Fig. C1.06b)

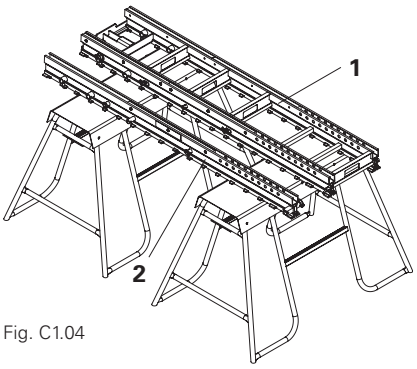


Fig. C1.04

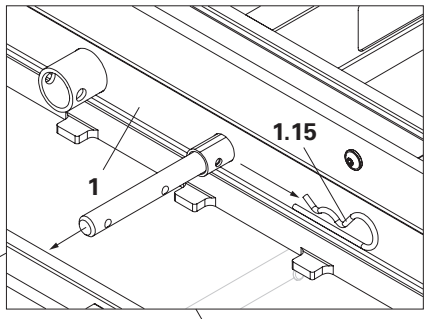


Fig. C1.05a

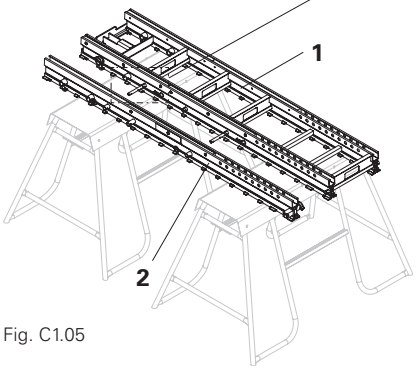


Fig. C1.05

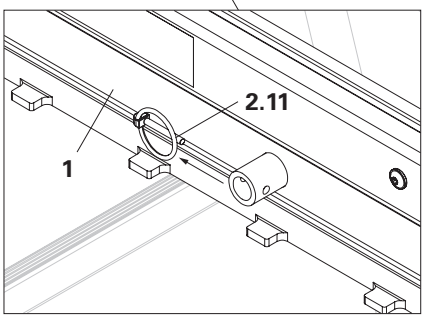
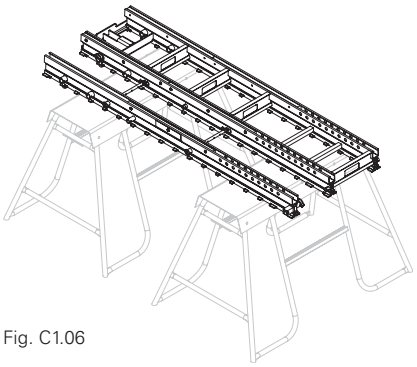


Fig. C1.05b

4. Adjust the desired length between the compensation frame SXP COF (**1**) and the outside corner support SXP CB (**2**) and pin it to the compensation frame SXP COF (**1**) with the cotter pin of the telescopic pin rod (**1.15**). (Fig. C1.06 + Fig. C1.06a)


Fig. C1.06

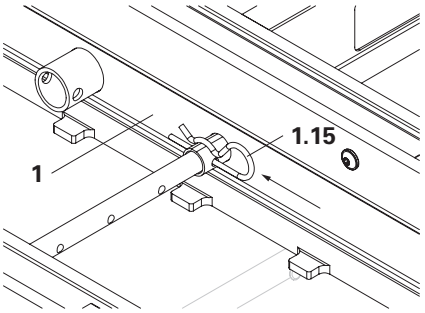


Fig. C1.06a

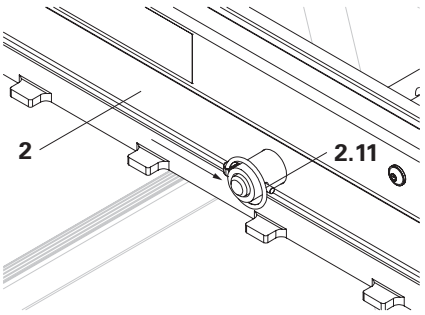


Fig. C1.06b

C1 Column directly on the edge – upper level

Continue with column directly at the edge – upper level

1. Position the next two props so that the connected compensation frames SXP COF (**1**) and outside corner supports SXP CB (**2**) fit and can be hooked in.
2. Hook the interconnected compensation frames SXP COF (**1**) and outside corner supports SXP CB (**2**) into the prop heads on the props. Make sure that the elements are correctly seated and guided in the prop heads.
3. Attach the bracing chain 3.0 kN centrally to the compensation frame SXP COF (**1**).
4. Mount outside corner post SXP CP (**3**) to the suspended outside corner support SXP CB (**2**). (Assembly, see Section "A3 Outside corner post SXP CP" on page 15.) Position the outside corner post SXP CP (**3**) as close as possible to the column. (Fig. C1.07 + Fig. C1.07a)

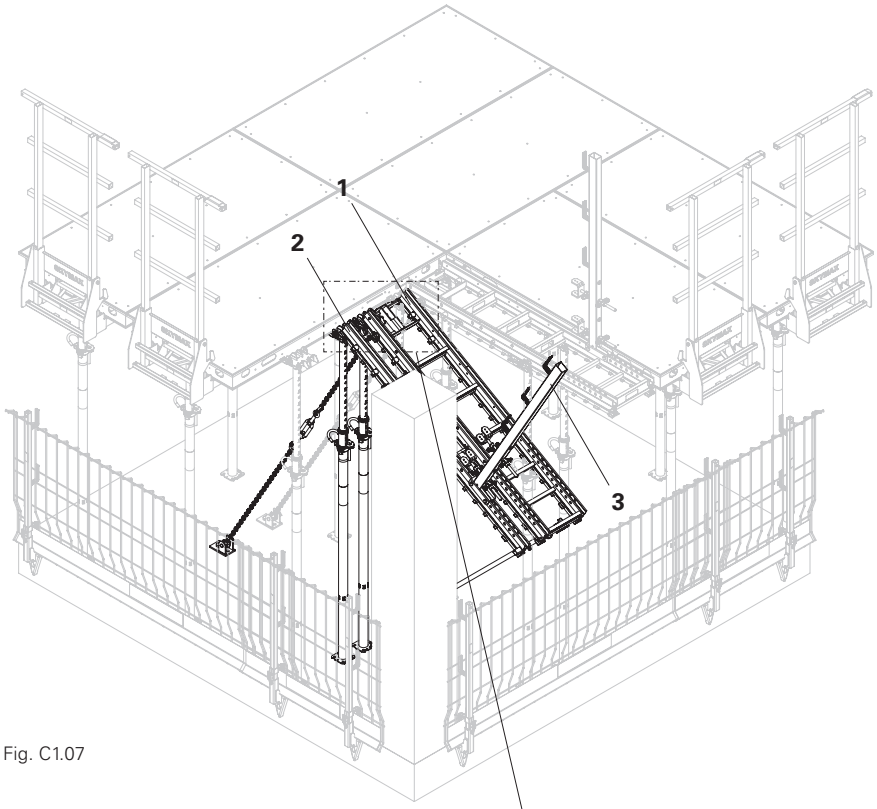


Fig. C1.07

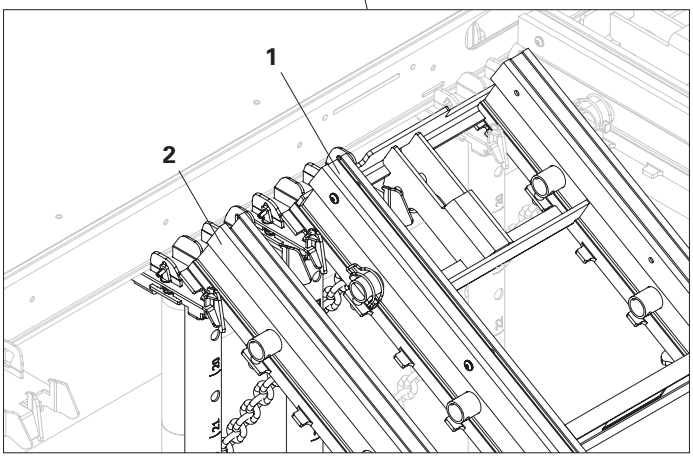


Fig. C1.07a

C1 Column directly on the edge – upper level

5. Swing up the compensation frame SXP COF (**1**) and outside corner support SXP CB (**2**) with shuttering aid SXP A (**8**) at the last strut of the compensation frame SXP COF (**1**) and support them with the recessed prop head of the adjacent element at the leading edge. (Fig. C1.08 + Fig. C1.10)

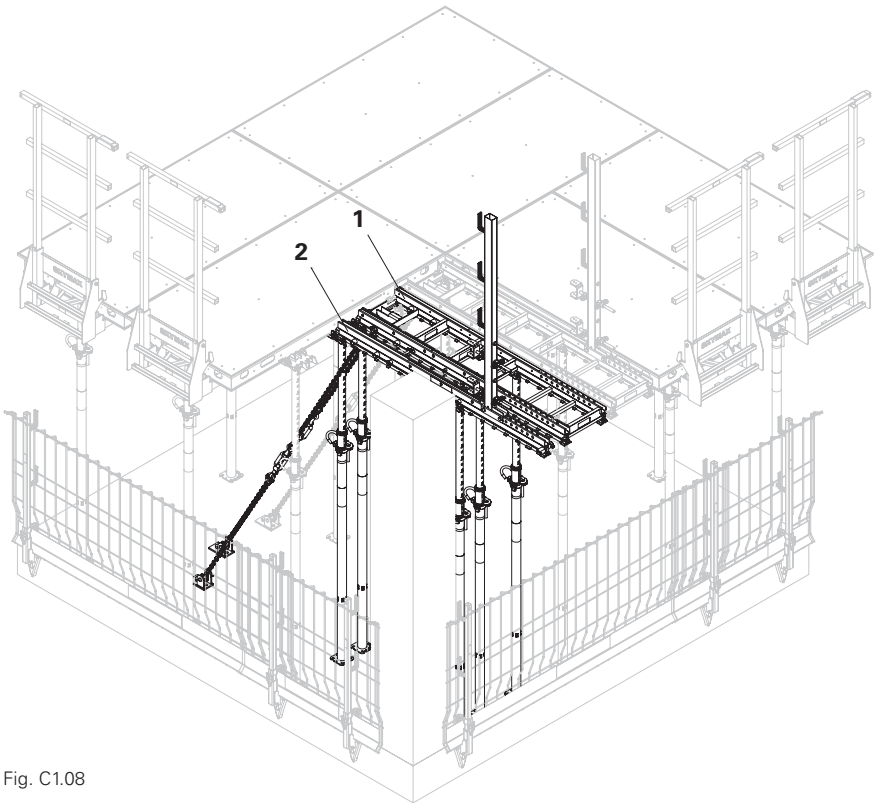


Fig. C1.08

For composite elements, a second shuttering aid SXP A (**8**) used by a second person must always be used for weight reasons. Attach the second shuttering aid SXP A (**8**) to the outside corner support SXP CB (**2**), for example, at the last spacer tube and secured with tube linch pin. (Fig. C1.09)

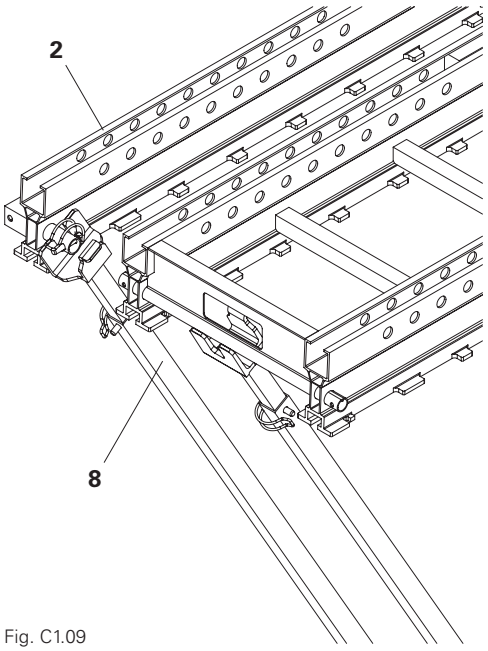


Fig. C1.09

C1 Column directly on the edge – upper level

6. Once the recessed prop head has been properly attached to the slab edge from the adjacent element and each longitudinal brace is supported, carefully remove the shuttering aid SXP A (**8**).
7. Tension bracing chains 3.0 kN. (Fig. C1.10)

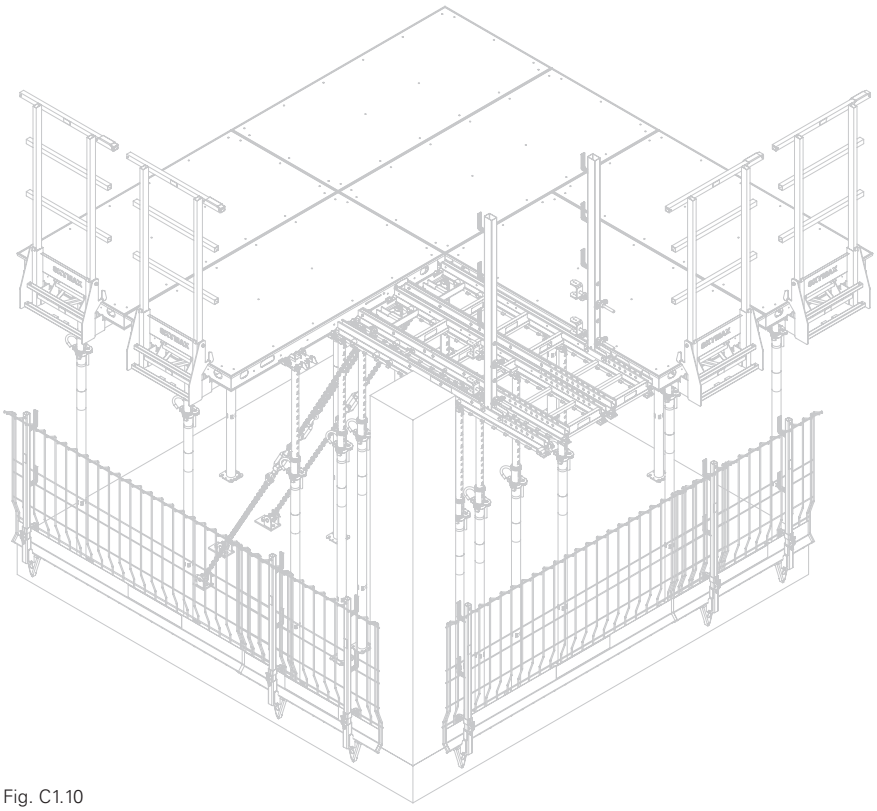


Fig. C1.10

C1 Column directly on the edge – upper level

Further bracing
If an outside corner post SXP CP is installed on an outside corner support SXP CB and this is close to the column, another bracing chain 3.0 kN must be installed on the outside corner support SXP CB. Attach this to the bolt of the outside corner support.

Place the prop max. 120 mm from the slab edge. (Fig. C1.11 + Fig. C1.12) This is a general rule, see Section "B1 General boundary conditions for all assemblies" on page 20.

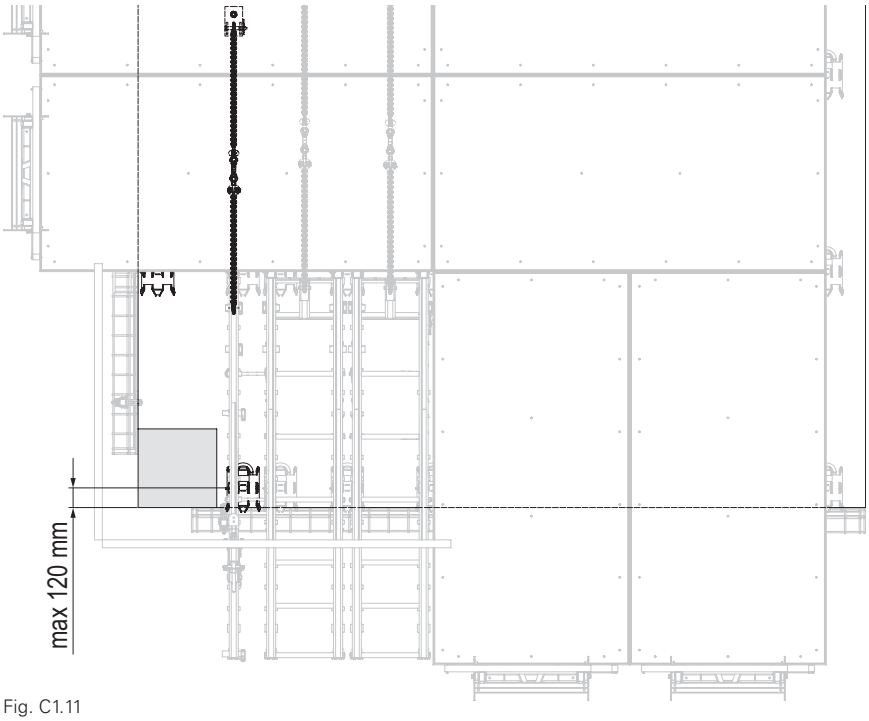


Fig. C1.11

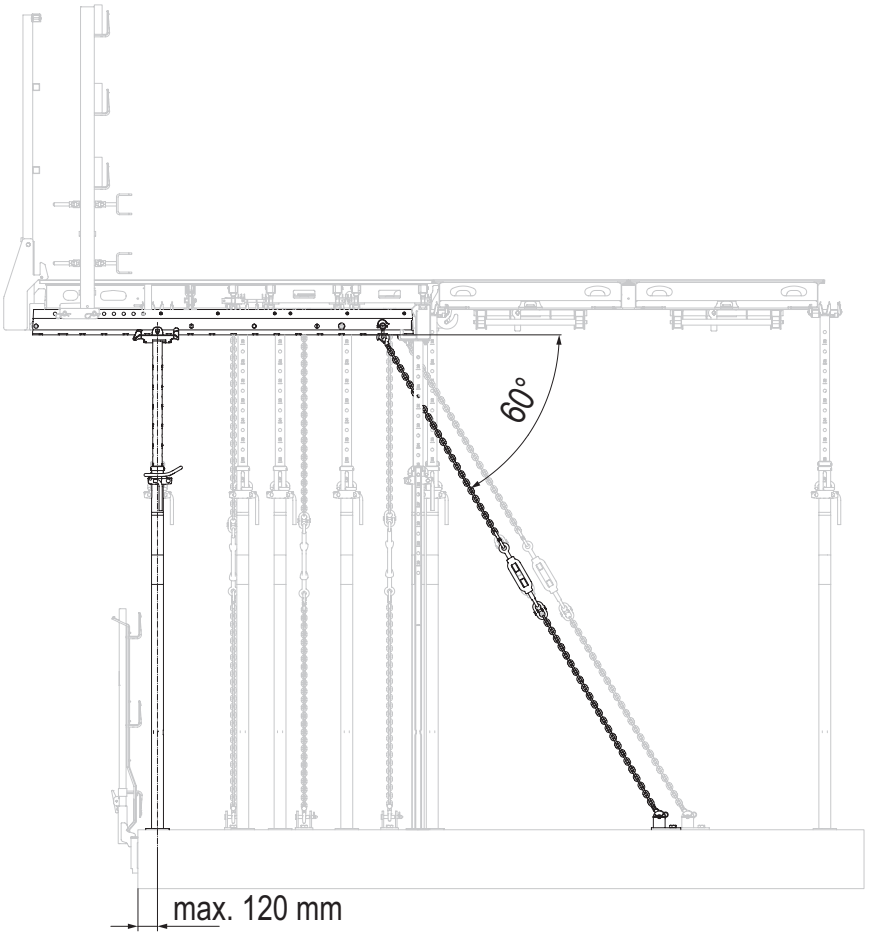


Fig. C1.12

C2 Column directly on the edge – lower level

1. Install the offset support head SXP OH (**4**) on the props with four bolts M12 x 30-8.8 and four nuts M12-8.
2. Position the offset support heads SXP OH (**4**) with prop below the first compensation frame SXP COF (**1**) of the upper level.
   Position the offset support heads SXP OH (**4**) so that the compensation frame SXP COF (**1**) is as close as possible to the column when it is swung up further on. The offset support heads SXP OH (**4**) must be positioned on the longitudinal brace from the compensation frame SXP COF (**1**), which is closer to the standard panels.
   (Fig. C2.01 + Fig. C2.01a)

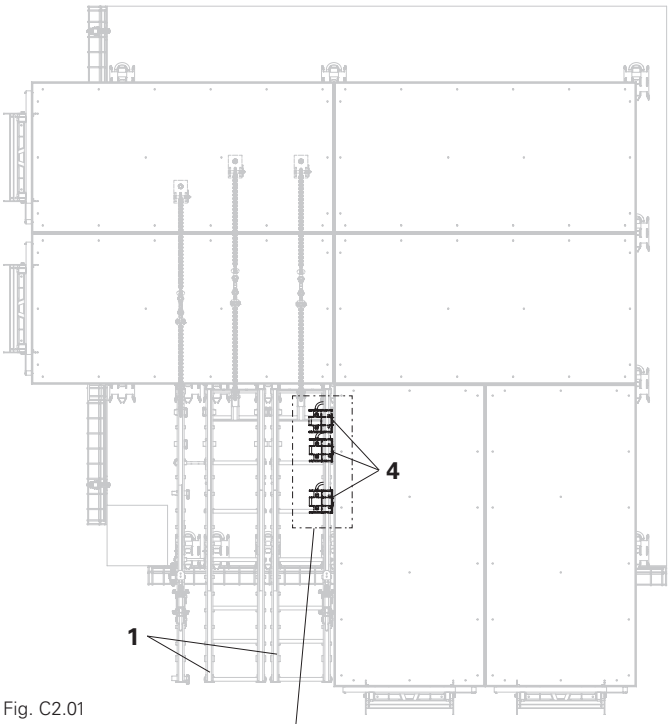


Fig. C2.01

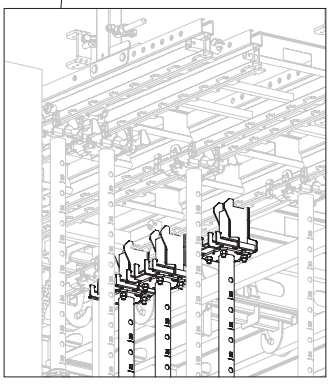


Fig. C2.01a

C2 Column directly on the edge – lower level

Pre-assembly of height compensation SXP HC on the compensation frame SXP COF

1. Place the compensation frame SXP COF (**1**) securely on trestles.
2. Place the height compensation SXP HC (**5**) on the compensation frame SXP COF (**1**) in such a way that the height compensation SXP HC (**5**) is approximately flush with the edge of the building after it has been swung up.
3. Fix the height compensation SXP HC (**5**) with two nails per side through the nail holes (**5.4**) on the compensation frame SXP COF (**1**). (Fig. C2.02)
   If necessary, move the bolting strip on the compensation frame SXP COF (**1**), see Section "The compensation frame SXP COF (**1**) consists of powder-coated aluminium sections and bolting strips. In addition, two telescopic pin rods are integrated for filler areas. (Fig. A1.01 + Fig. A1.02)" on page 12.
4. Telescope the height compensation if necessary.

The height compensation SXP HC (**5**) can also be installed lengthwise, e.g. on the compensation frame SXP COF (**1**). (Fig. C2.04 + Fig. C2.04a)

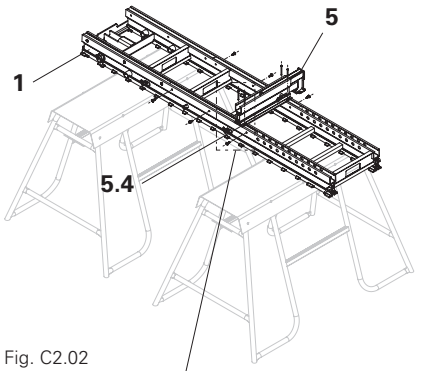


Fig. C2.02

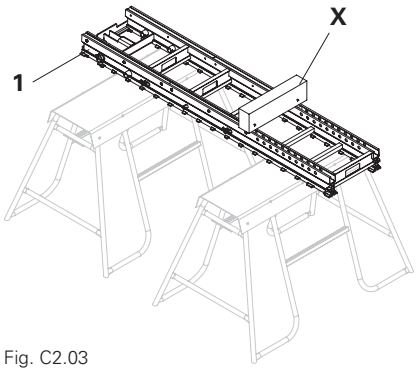


Fig. C2.03

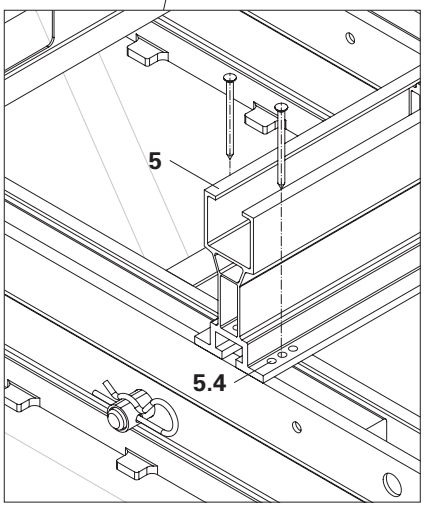


Fig. C2.02a

Alternative

Instead of the height compensation SXP HC (**5**), a wooden edging strip (**X**) can also be used. The wooden edging strip must be 129 mm high. (Fig. C2.03)

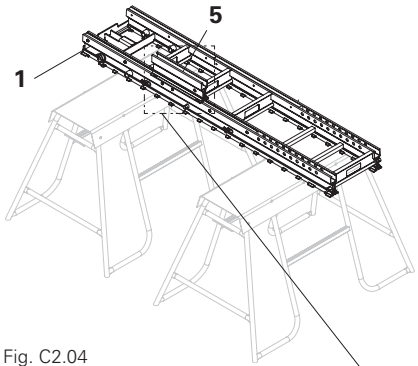


Fig. C2.04

Pre-assembly: connect compensation frame SXP COF to outside corner support SXP CB

Connect the compensation frame SXP COF (**1**) with the height compensation SXP HC (**5**) on top and the outside corner support SXP CB (**2**), see Section "Pre-assembly: connect compensation frame SXP COF to outside corner support SXP CB" on page 27.

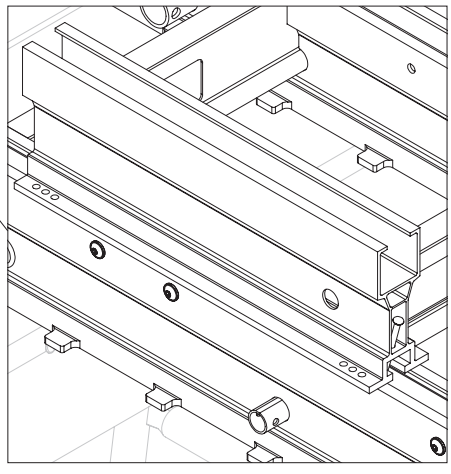


Fig. C2.04a

C2 Column directly on the edge – lower level

Continue with column directly on the edge – lower level

1. Hang the compensation frame SXP COF (**1**) with height compensation SXP HC (**5**), outside corner support SXP CB (**2**) and 3.0 kN bracing chain (**11**) into the offset support heads SXP OH (**4**).
   Check that the compensation frame SXP COF (**1**) and outside corner support SXP CB (**2**) are correctly seated in the offset support heads SXP OH (**4**).
2. Slightly pre-tension the compensation frame SXP COF (**1**) with a 3.0 kN bracing chain on the bolt in the centre of the frame.
   (Fig. C2.05 + Fig. C2.05a)

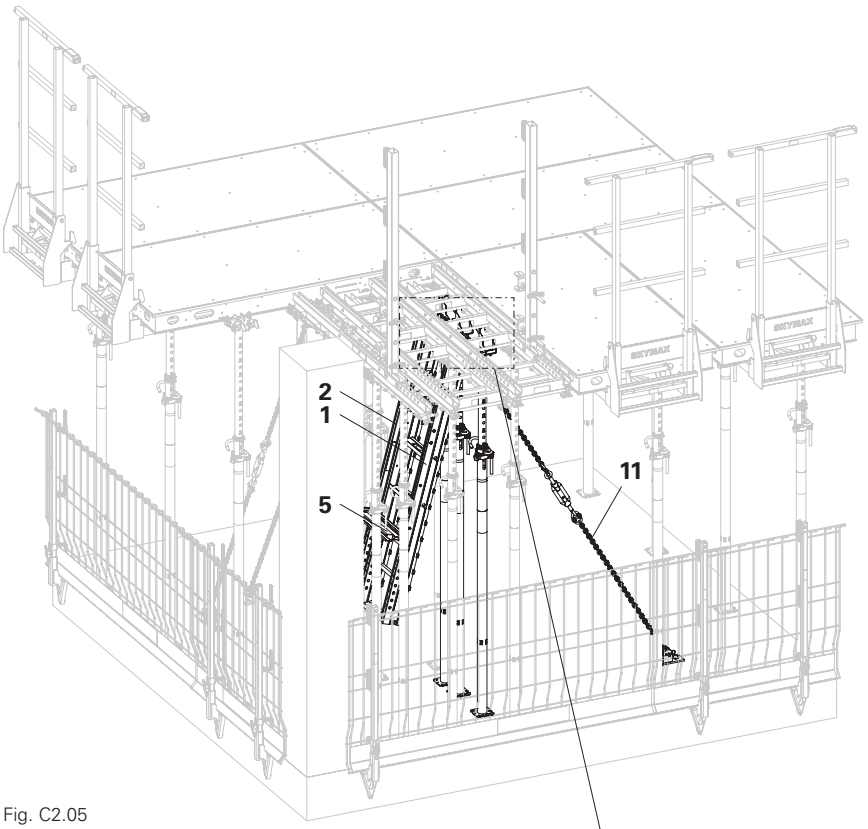


Fig. C2.05

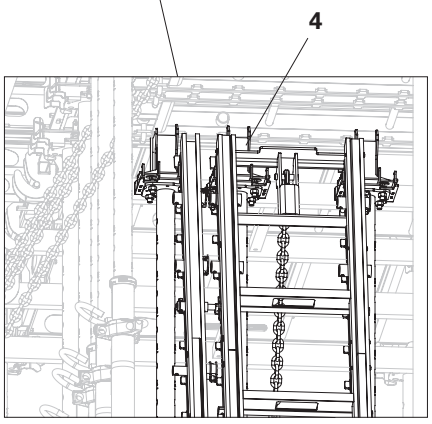


Fig. C2.05a

C2 Column directly on the edge – lower level

3. Mount one outside corner post SXP CP (**3**) to the side strut of the compensation frame SXP COF (**1**) close to the column, Install the other outside corner post SXP CP (**3**) on the outside corner support SXP CB (**2**). (Assembly, see Section "A3 Outside corner post SXP CP" on page 15.)
4. Swing up the compensation frame SXP COF (**1**) using the shuttering aid SXP A (**8**) and support it with a prop head on the slab edge. (Fig. C2.06)
5. Tighten 3.0 kN bracing chain (**11**). (Fig. C2.07)
6. Mount additional chain on the pin of the outside corner support and tension it
7. If the height compensation is telescoped, it must be supported at the edge with a prop head.

Further bracing required , see Section "Chain bracings" on page 38.

Observe minimum distances (position of outside corner posts) + maximum distances (position of slab props at the edge), see Section "B2 Outside corner solution with column on the edge" on page 21.

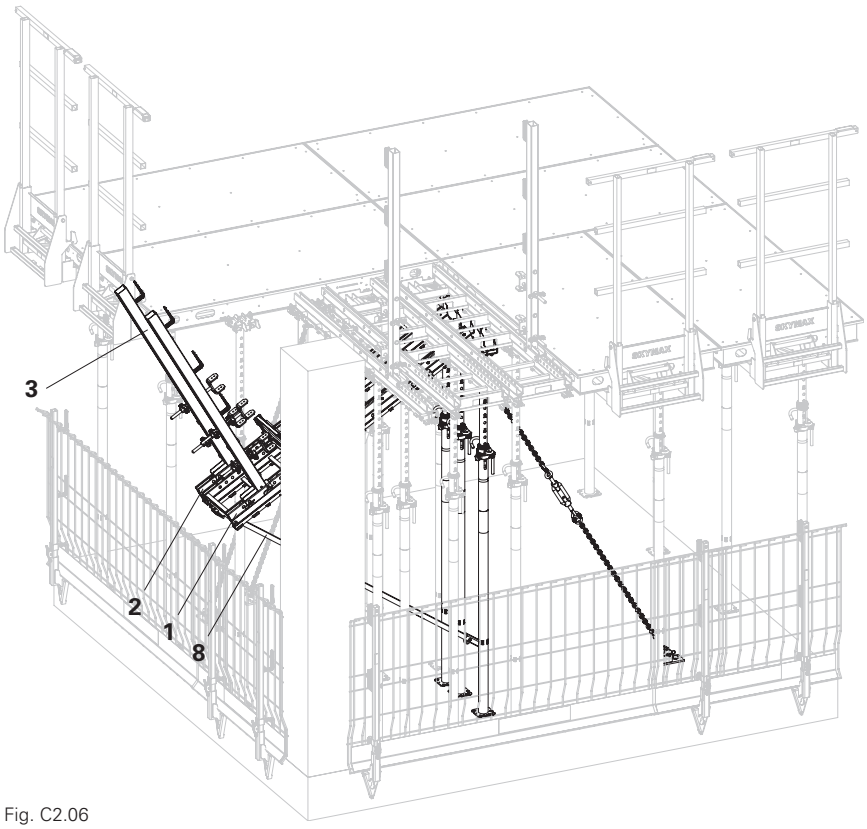


Fig. C2.06

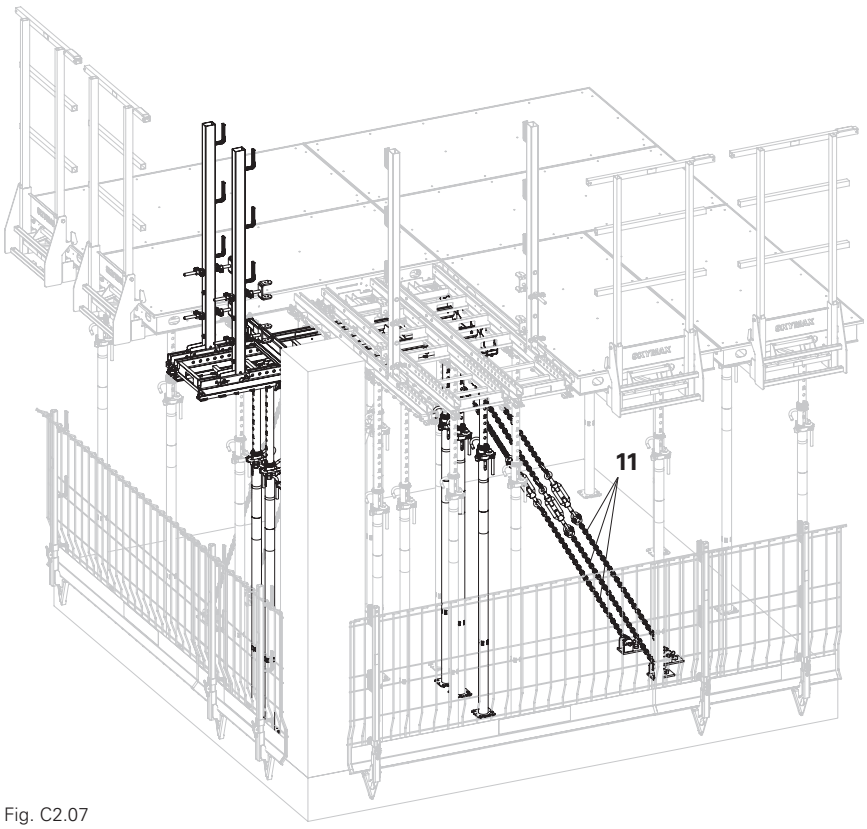


Fig. C2.07

C2 Column directly on the edge – lower level

Compensation frame SXP COF (**1**) is swivelled up and supported with prop heads and braced at a 60° angle with bracing chains 3 kN.
(Fig. C2.08 + Fig. C2.08a)

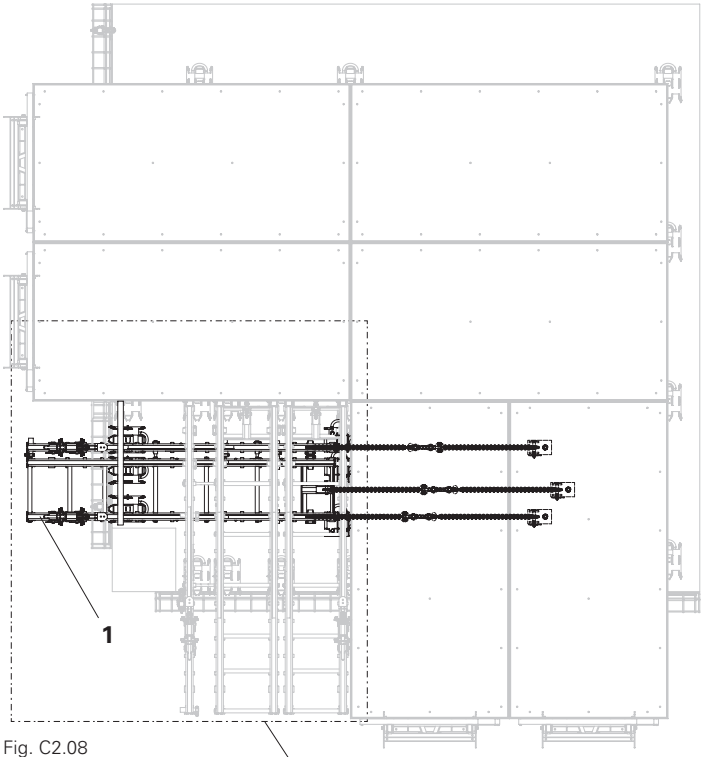


Fig. C2.08

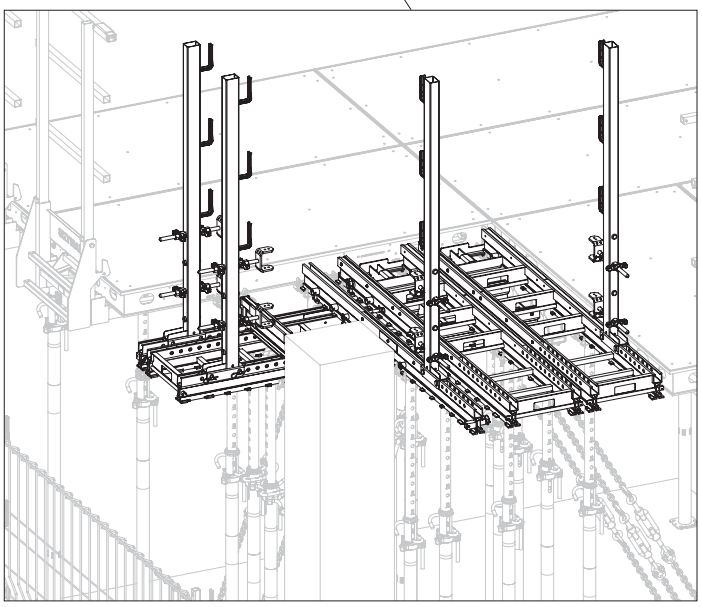


Fig. C2.08a

C2 Column directly on the edge – lower level

Filler areas

Distance between column and outside corner support SXP CB (**2**) or compensation frame SXP COF (**1**) ≤ 100 mm. (Fig. C2.09)

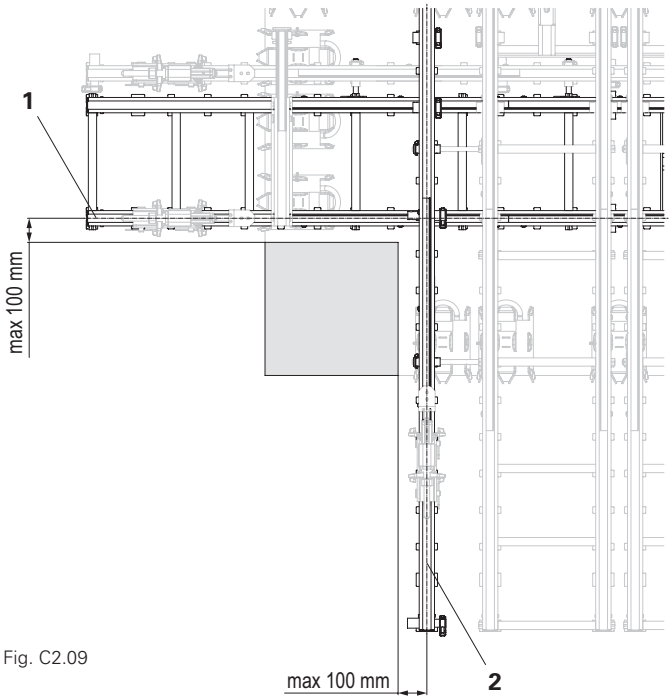


Fig. C2.09

If the distance between column and outside corner support SXP CB (**2**) is > 100 mm, additional supporting of the formlining is necessary. (Fig. C2.10)

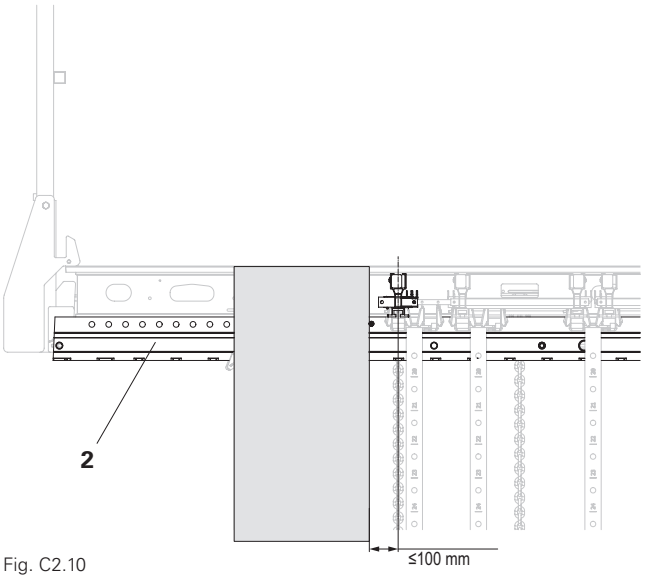


Fig. C2.10

C3 Column directly on the edge

Chain bracings
All bracing chains must be installed at an angle of 60°.

A: A bracing chain is required on each compensation frame when installed on the bolt in the centre of the frame. These bracings are also required from a structural point of view.

B: Additional bracings required on the pin of the outside corner support and on the pin of the side girder at the compensation frame if an outside corner post is fitted to these girders. Exception: lateral frame girder (**X**) in upper level directly next to panel. No additional bracing is required on this girder.

C: Additional chains may be required to relieve the stop end formwork pressure.

- Stop end formwork pressure remains in the system (e.g. building open on both sides with continuous formwork):
  → No additional bracings required.
- Stop end formwork pressure must be transferred with the bracings at the outside corner (e.g. building open on one side or no continuous formwork):
  → Slab thickness < 30 cm: no additional bracings required.
  → If the slab thickness ≥ 30 cm, a total of at least 3 chains (A+B+C) are required on each side from a structural point of view.
  → If the projection Y of the panels is ≥ 600 mm, a total of at least 4 chains (A+B+C) are required on each side if the slab thickness ≥ 38 cm.

The bracings C are installed on the girders with outside corner posts directly next to the building column. (Fig. C3.01 + Fig. C3.02)

Have all bracing chains been tightened? Have all necessary props been set? Are all gaps < 300 mm? Have all outside corner posts SXP CP been set? Have all height compensations SXP HC been installed?

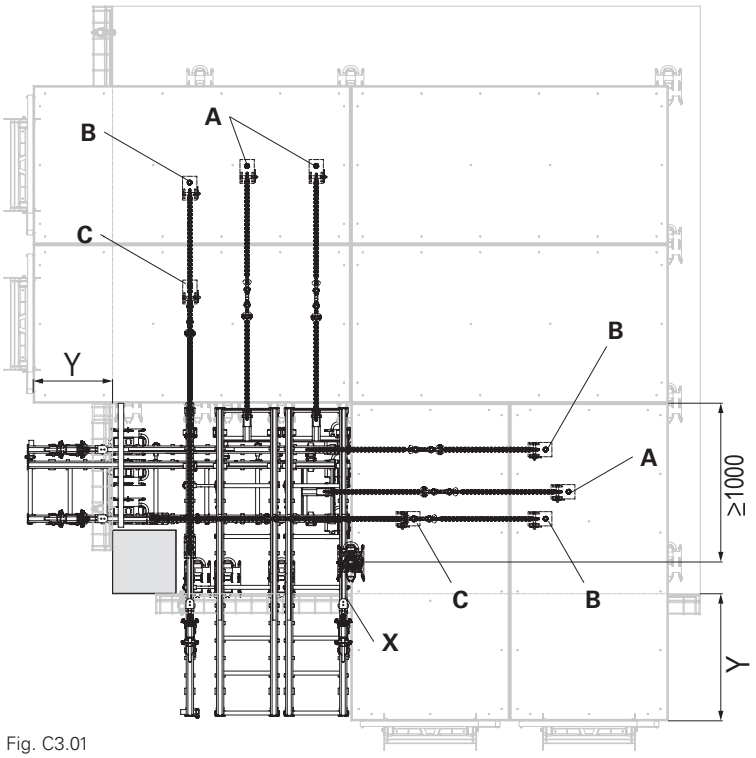


Fig. C3.01

To maintain a continuous formwork between the outside corner and the panels:

- Connect outside corner support and compensation beams in the upper level in longitudinal direction to the adjacent panel via prop heads.
- Connect the compensation frame in the upper level in the transverse direction with at least one further prop head to the other adjacent panel. Distance to corner support head ≥ 1000 mm.

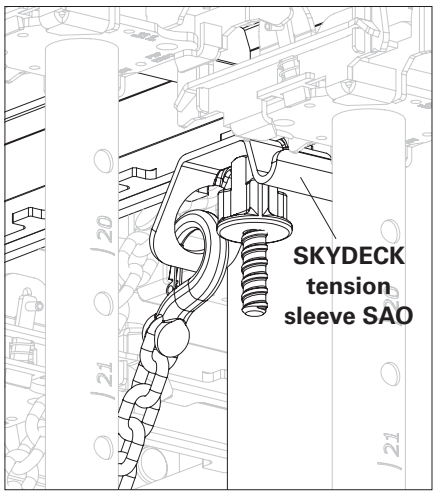


Fig. C3.02

C3 Column directly on the edge

Danger

- There is a danger of falling when installing the guardrail boards (**12**), formlining and stop end formwork! This could result in serious injuries or even death.
  ⇒ Install from a safe working position and use PPE to prevent falling from a height.
- The guardrail boards/squared timbers/stop end formwork can slip out of the holders when climbing. Danger to life due to falling!
  ⇒ Do not climb on guardrail boards/ squared timbers/stop end formwork and side mesh barriers.

Installing guardrail, formlining and stop end formwork

1. Slide guardrail boards 150 x 40 mm (**12**) from a safe position into the outside corner posts SXP CP (**3**). (Fig. C3.03)
2. Fill the open space with wooden edging strips (**12.1**) and fix with nails on one side. Max. cantilever of the guardrail boards 150 x 40 mm or 120 x 40 mm (**12**) is 700 mm.
3. Slide stop end beam 80 x 80 mm (**13**) from a safe position into the wood mount (**3.6**) of the outside corner post SXP CP (**3**) and fix it with nails in the outside area.
4. Cut the formwork panel into strips, install it from a safe position and fix it with nails. The formwork panel projection must not exceed 30 mm. (Fig. C3.04a)
5. Fix stop end beams 80 x 80 mm (**13**) and guardrail boards 150 x 40 mm (**12**) completely with nails. (Fig. C3.04)

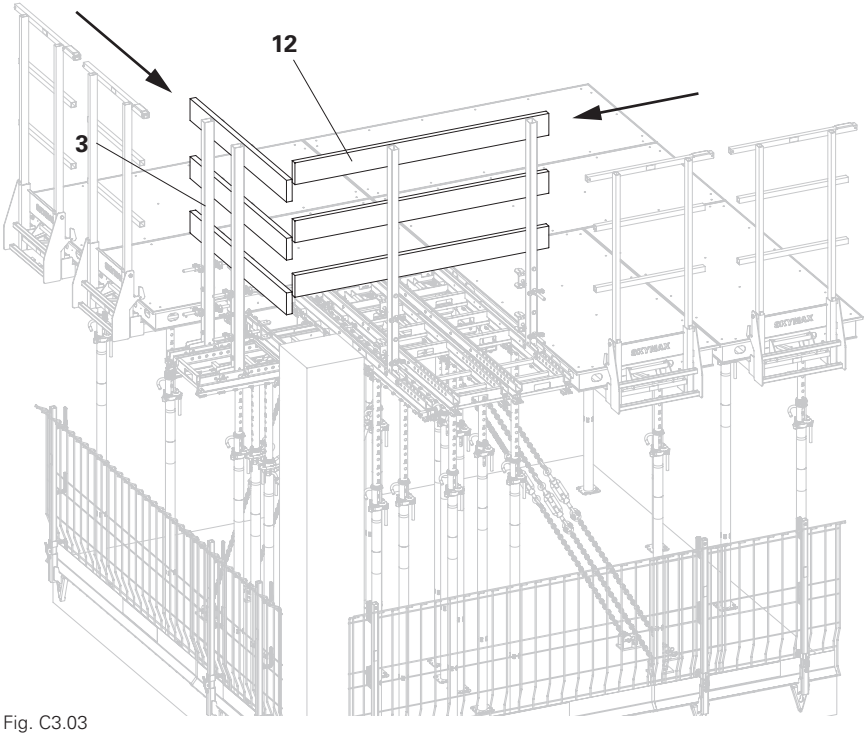


Fig. C3.03

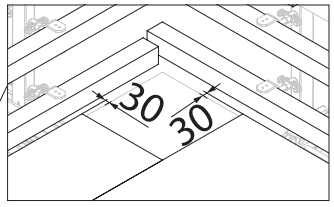


Fig. C3.04a

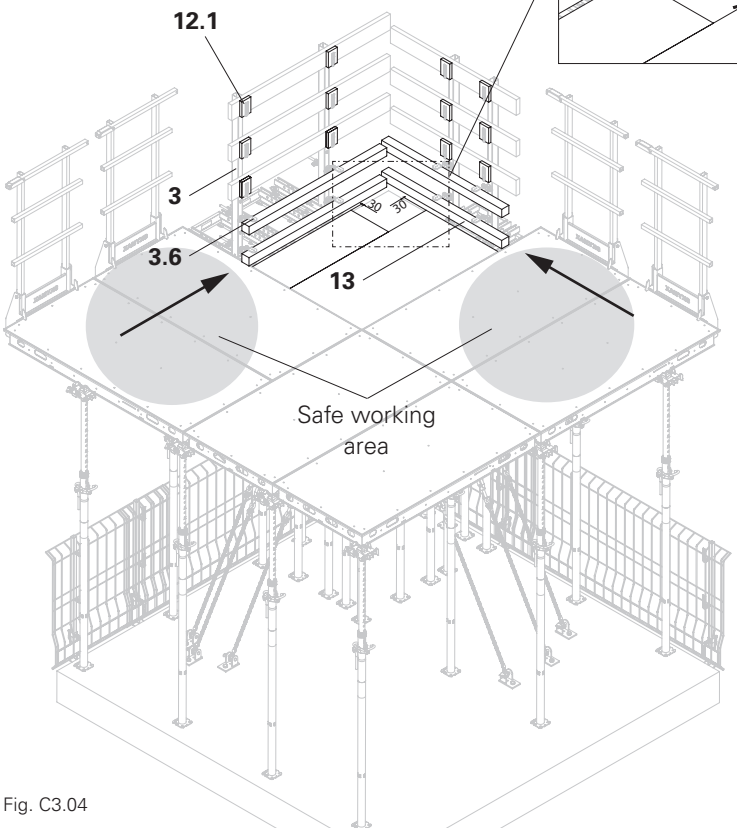


Fig. C3.04

C3 Column directly on the edge

6. Install the formlining for the stop end formwork and fix it to the stop end beams 80 x 80 mm (**13**) with SKYMAX stop end screws (see program overview). (Fig. C3.05)
7. Carry out the infinitely variable fine adjustment of the stop end formwork with an infinitely variable grid (spindle) via the stop end formwork shoes (**3.3**).
   Carry out the adjustment using the securing nut (**3.7**) and lock nut (**3.4**). (Fig. C3.05a)

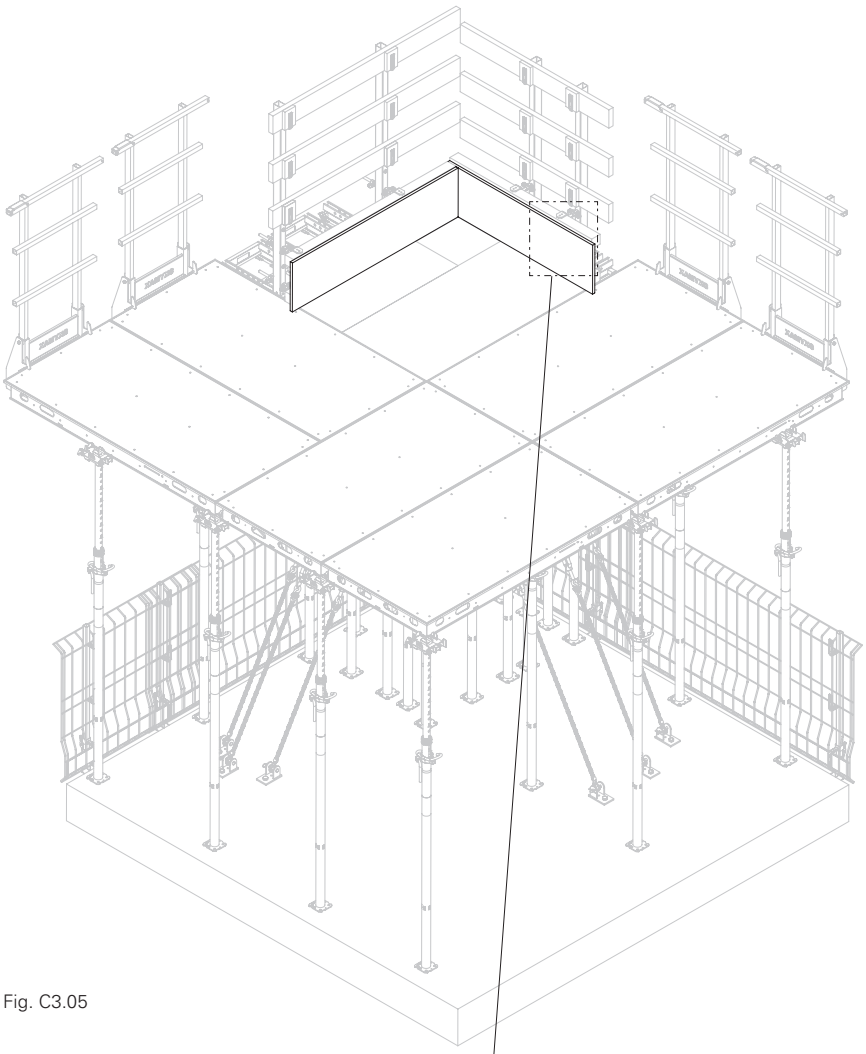


Fig. C3.05

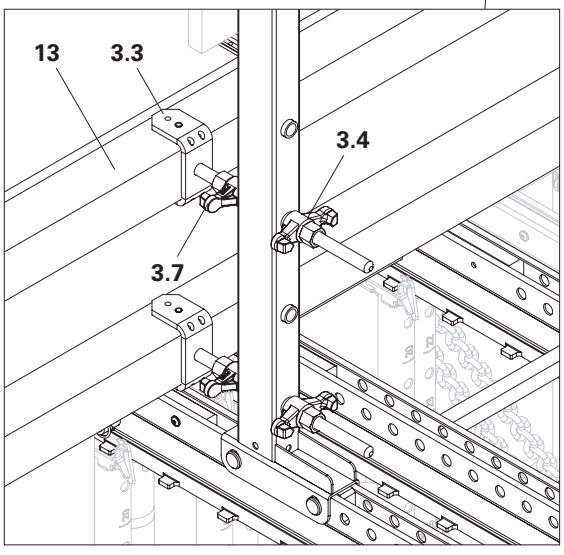


Fig. C3.05a

8. Plan guardrail post holders SXP GPR T2/GPL T2 with posts PP (**P**) during the planning of the assembly of the SKYMAX basic system and Install them during the assembly of the basic system. (Fig. C3.06)
9. Slide guardrail boards 15 x 4 cm (**12**) from a safe position into the outside corner posts SXP CP (**3**).
10. Fill the open space with wooden edging strips (**12.1**) and fix with nails on one side.
11. Fit squared timbers (**14**) in the corners as non-positive connections between the guardrail boards and fix them with nails. (Fig. C3.07)
12. Install the stopend sleeves DW 15 (**15**) (see Instructions for Assembly and Use PROKIT EP 110 safety system).

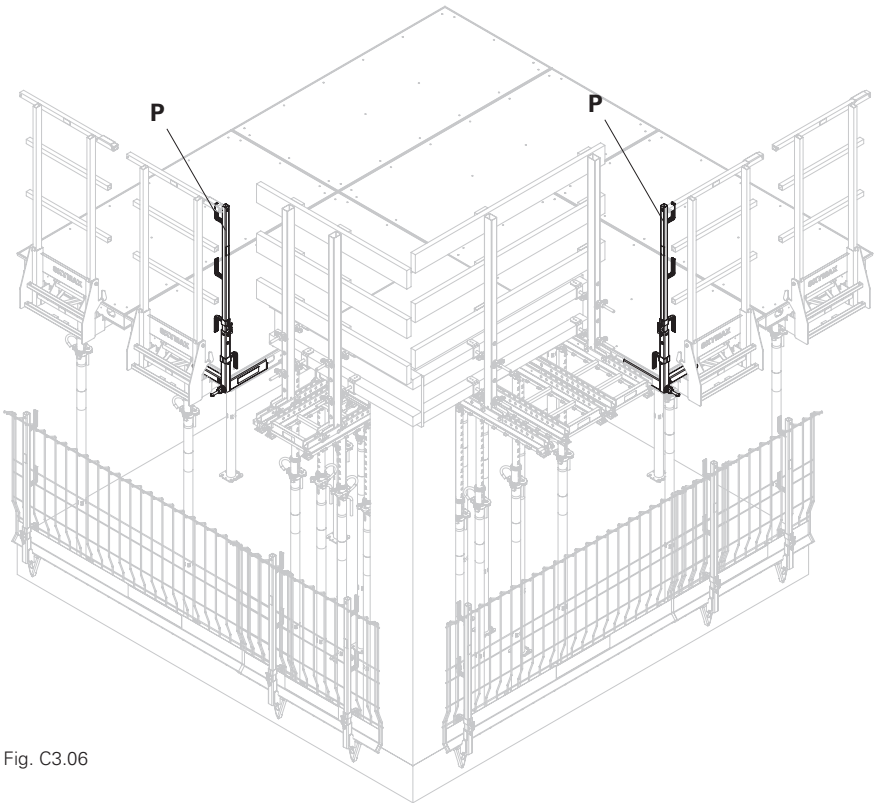


Fig. C3.06

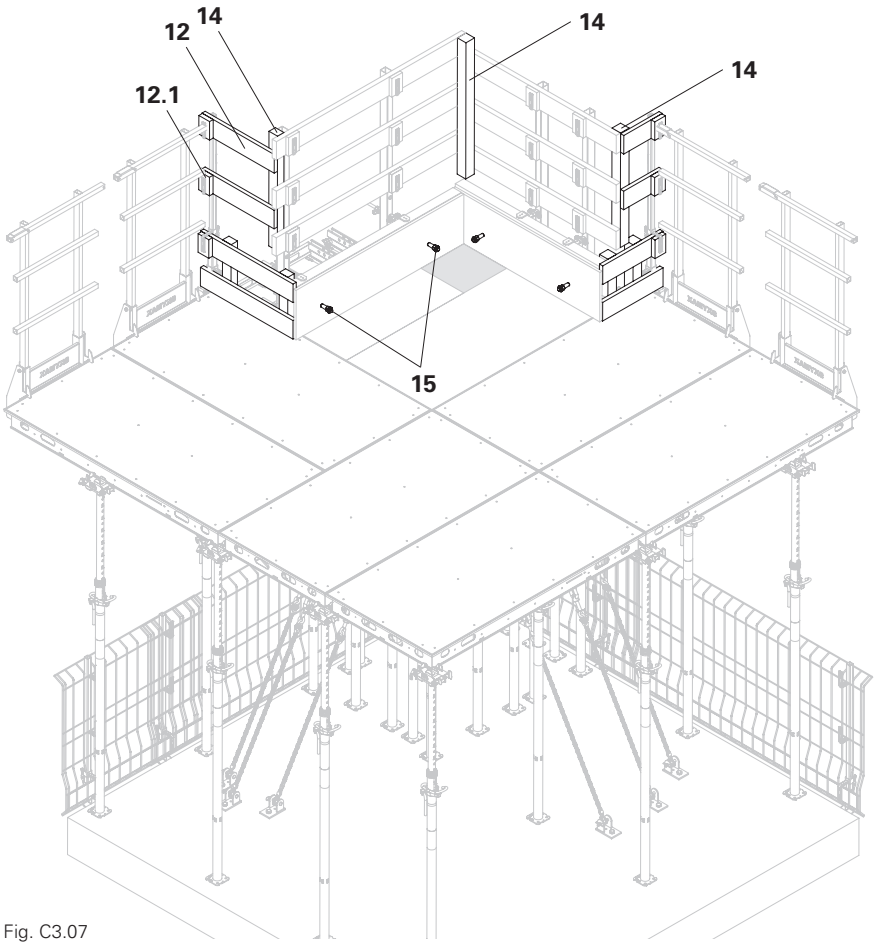


Fig. C3.07

C4 Column recessed – upper level

Always start with a compensation frame SXP COF (**1**) directly next to the panel.

1. Install the compensation frame SXP COF (**1**) with the outside corner post SXP CP (**3**) as for "column at the edge" and swing it up, see Section "C1 Column directly on the edge – upper level" on page 24.
2. Two additional props with prop head (**10a**) and (**10b**) behind the column and the recessed prop (**10c**) from the standard panel remain in place. (Fig. C4.01 + Fig. C4.02)
   If the recessed support from the standard panel for the prop (**10b**) is in the way, it must be positioned recessed as far as possible to the edge and secured with a tripod against tipping over.

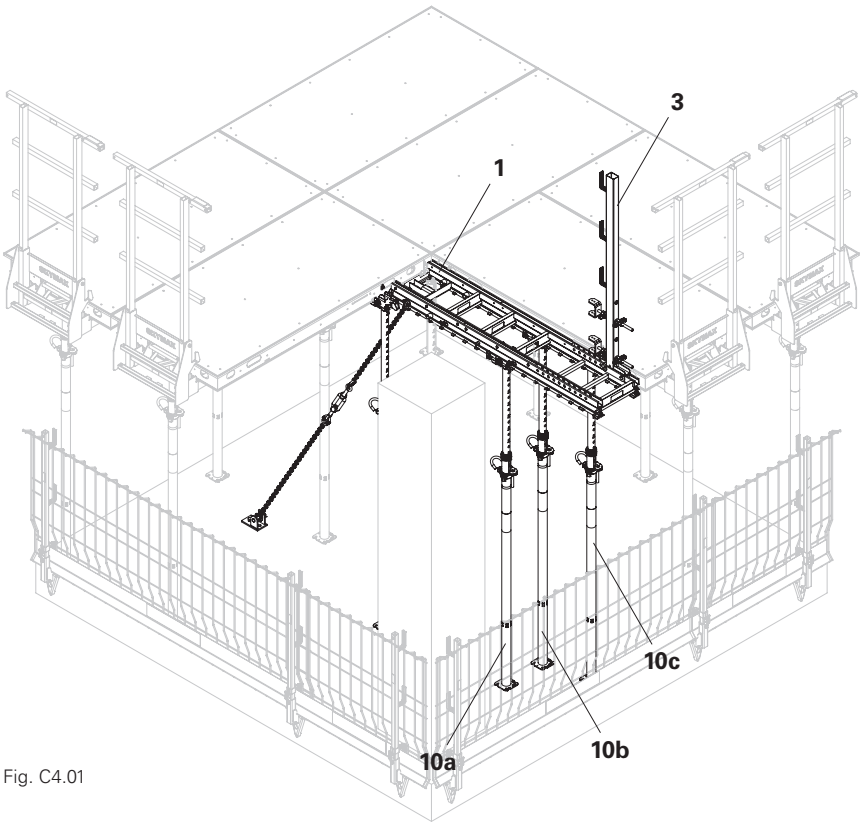


Fig. C4.01

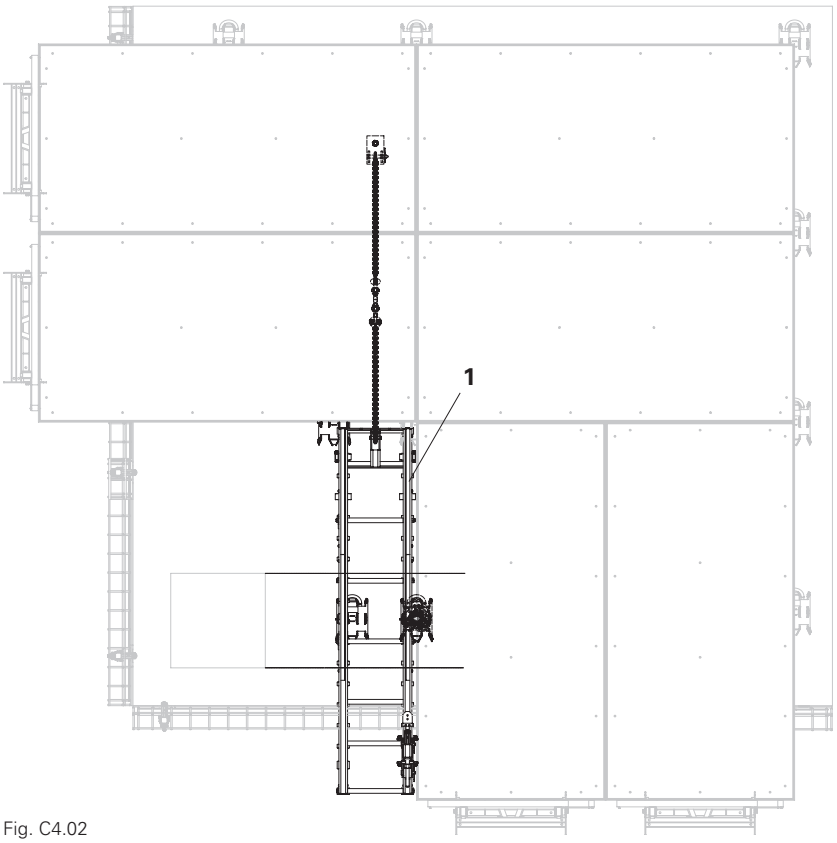


Fig. C4.02

C4 Column recessed – upper level

3. Position the props (**10**) with the prop head on the column (measure the area) so that the elements can be safely placed in the heads, then connect them with brace clamps (**16**) and a squared timber (**14**) (PERI recommends a squared timber with the dimensions 60 x 60) to form a firmly assembled prop so that the props cannot fall over.
   (Fig. C4.03 + Fig. C4.03a)

!

Position the supports (measure the area) so that the elements can be placed securely in the heads

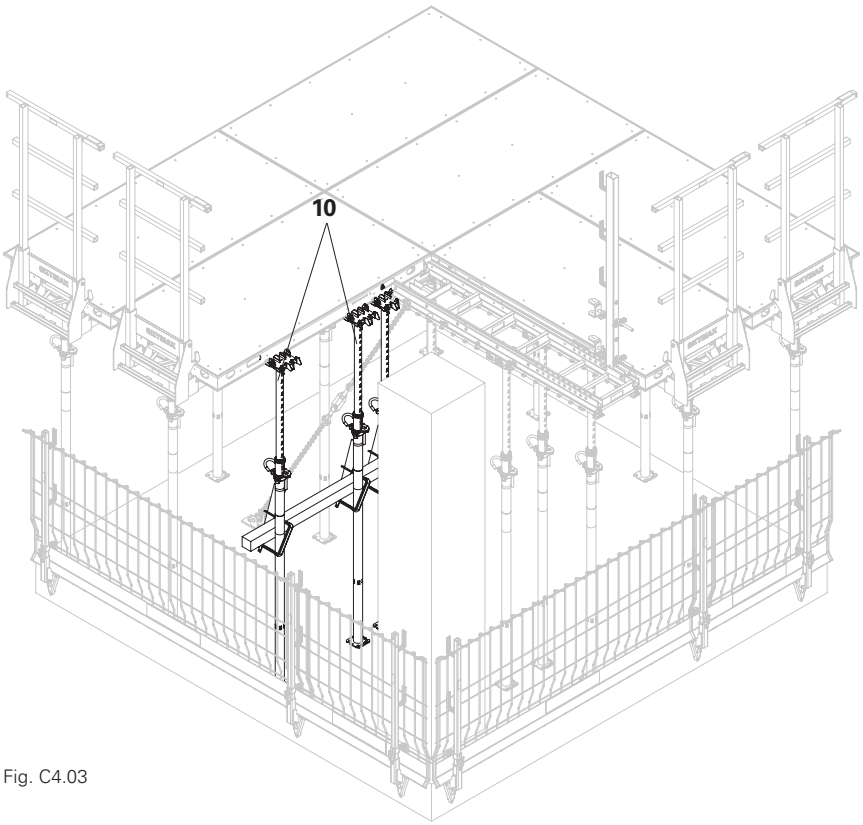


Fig. C4.03

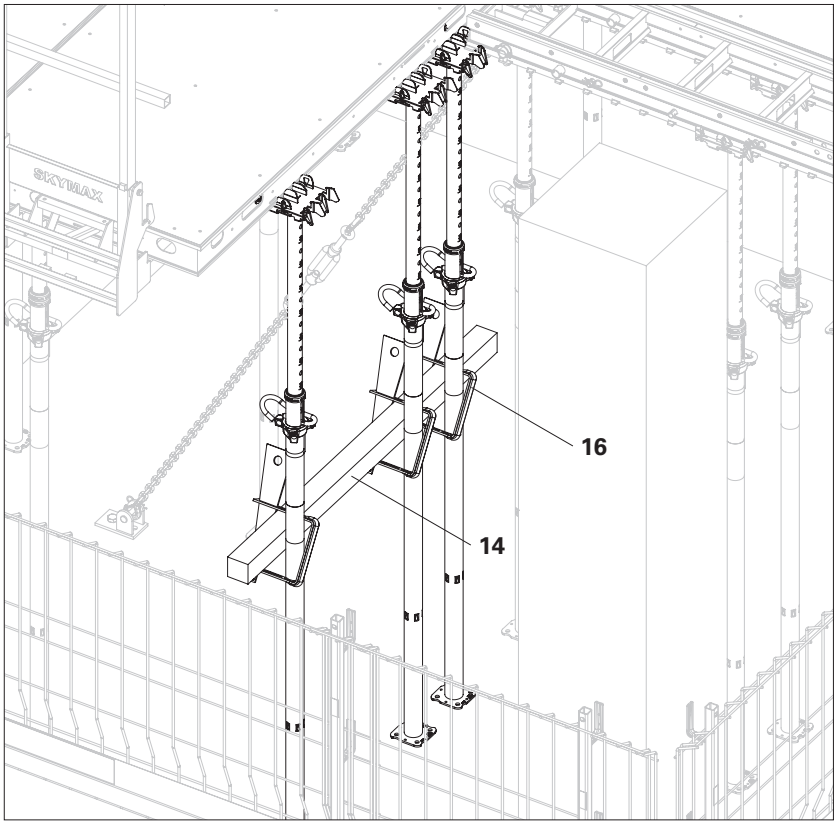


Fig. C4.03a

C4 Column recessed – upper level

Pre-assembly: connect two outside corner double supports with assembly lock SXP AS

1. Connect two outside corner supports SXP CB (**2**) to form an outside corner double support (**2.10**), see Section "Assembly outside corner double support" on page 14.
2. Push the assembly lock SXP AS (**6**) into the assembly lock mounts SXP AS (**2.5**) of the outside corner double supports (**2.10**) and secure it with the linch pin for connecting fixture (**2.11**) on the inside or outside. (Fig. C4.04 + Fig. C4.04a)

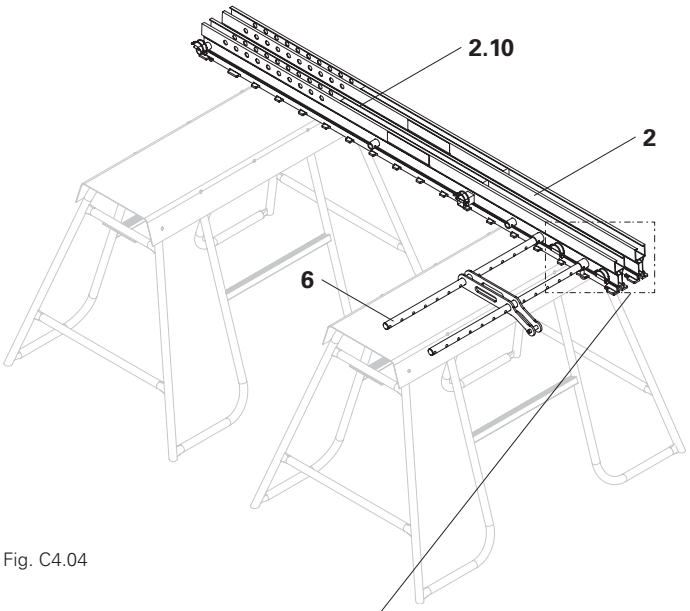


Fig. C4.04

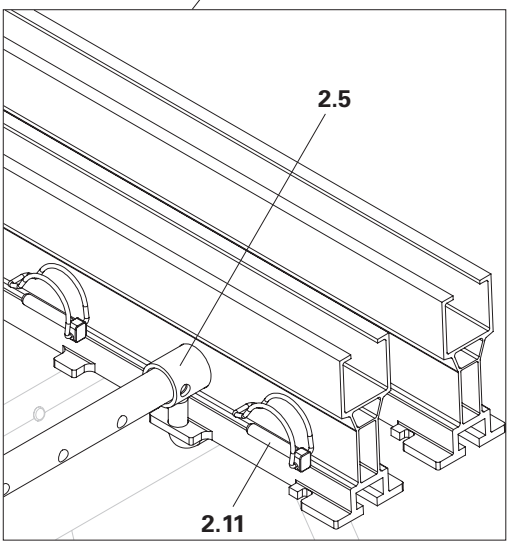


Fig. C4.04a

3. Push the second outside corner double support (**2.10**) like the first one onto the assembly lock SXP AS (**6**), secure it at the desired dimension with the linch pin in connecting fixture (**2.11**) inside or outside.
   Make sure that the assembly lock SXP AS (**6**) is positioned the right way round. (Fig. C4.05 + Fig. C4.05a)

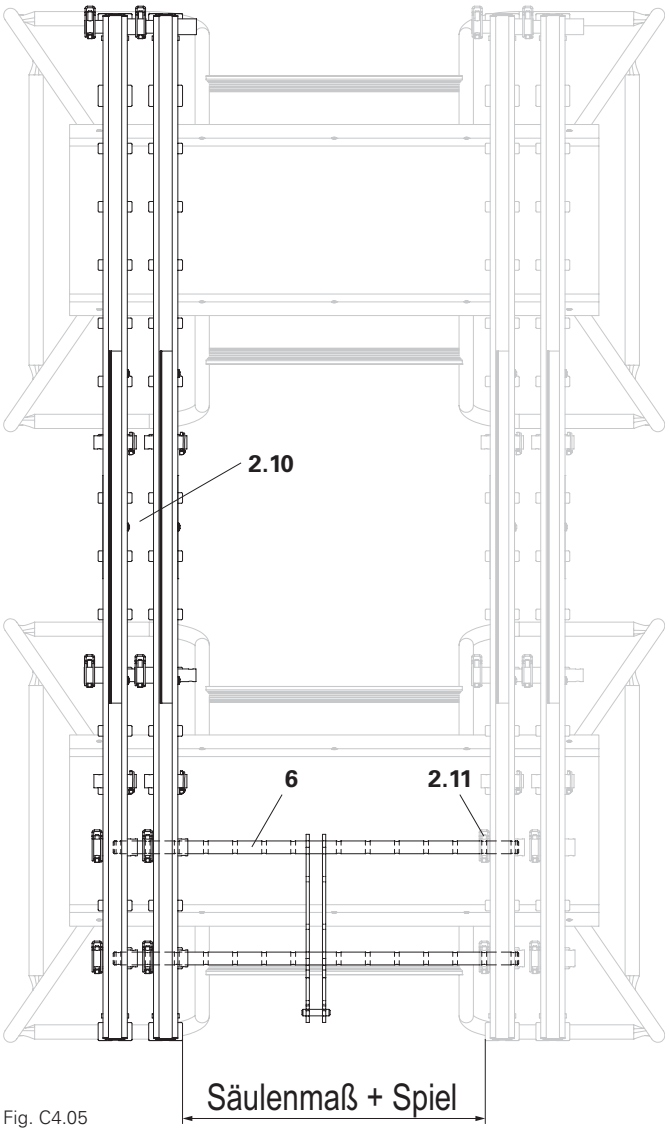


Fig. C4.05

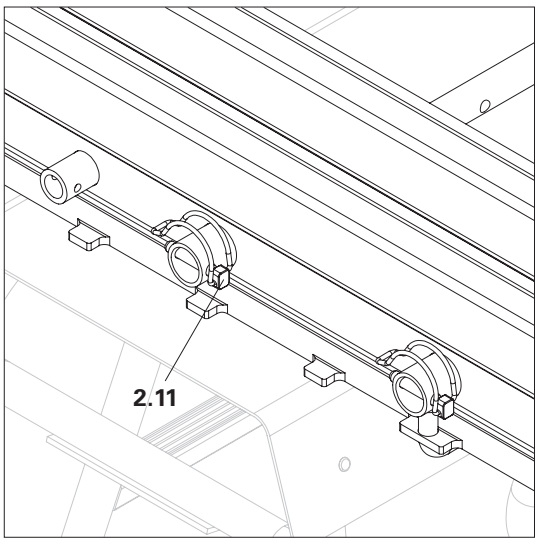


Fig. C4.05a

C4 Column recessed – upper level

Continue with column recessed – upper level

- For recessed columns, the outside corner supports SXP CB (**2**) must always be outside corner double supports (**2.10**).
- With an outer outside corner double support (**2.10**), the outside corner post SXP CP (**3**) must always be installed on the inner outside corner support SXP CB (**2**). The 3.0 kN bracing chain (**11b**) must also be attached to this outside corner support SXP CB (**2**).
- If the area between the column and the slab edge guardrail is difficult to access in order to position props, the prop guide SXP PG can be used.
- The compensation frame in the upper level must have a fixed connection (prop head (**X**) Fig. C4.07) to the adjacent panel in the transverse direction.

1. Hook the connected two outside corner double supports (**2.10**) with assembly lock SXP AS (**6**) into the prop heads. Make sure that the assembly lock SXP AS (**6**) is in the correct position (lug looking down). (Fig. C4.06a)
2. Install the 3.0 kN bracing chain (**11a**) on the assembly lock SXP AS (**6**) and pretension it slightly, install the outside corner post SXP CP (**3**) on the outside corner support SXP CB (**2**), see Section "A3 Outside corner post SXP CP" on page 15.
3. Slightly pretension the 3.0 kN bracing chain (**11a**) (assembly aid chain) at a 60° angle.
4. Using shuttering aids SXP A (**8**), swing up slowly and evenly on both sides and set down on the props (**10**) with prop head.
5. Attach and tension 3.0 kN bracing chains (**11b**) (static chain) from a safe position. (Fig. C4.06 + Fig. C4.07)

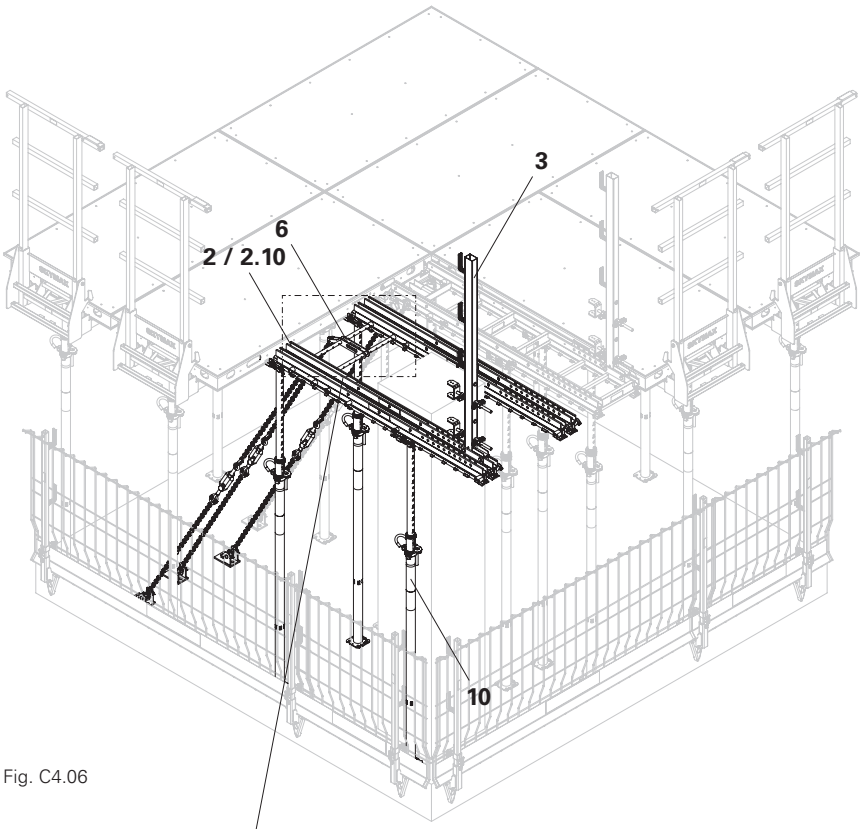


Fig. C4.06

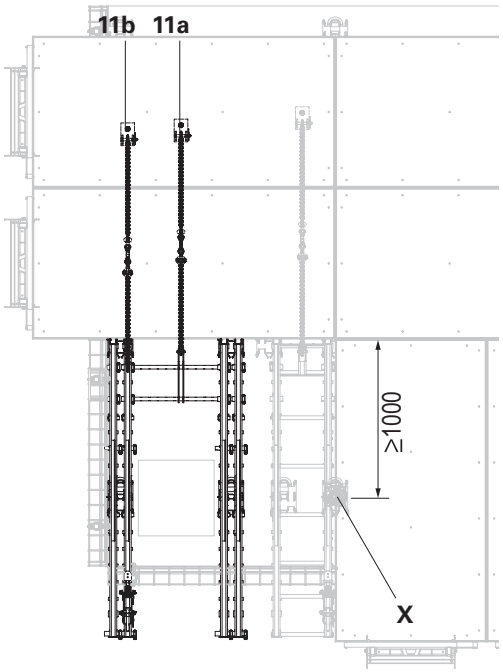


Fig. C4.07

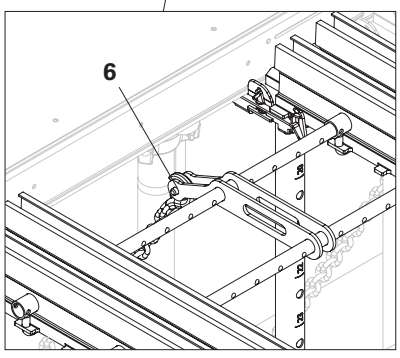


Fig. C4.06a

C4 Column recessed – upper level

Pre-assembly: connect outside corner double support with assembly lock SXP AS to compensation frame SXP COF

1. Place the compensation frame SXP COF (**1**) with outside corner support SXP CB (**2**) and outside corner double support (**2.10**) securely next to one another on trestles.
   (Assembly outside corner double support, see Section "Assembly outside corner double support" on page 14.)
2. First insert the assembly lock SXP AS (**6**) into the assembly lock mount SXP AS (**1.5**) in the compensation frame SXP COF (**1**), beforehand the linch pins. Remove the assembly lock (**1.14**) and secure it again after sliding it in with the linch pins for assembly lock (**1.14**).
   Make sure that the assembly lock SXP AS (**6**) is installed the right way round (lug looking down).
3. Slide the assembly lock SXP AS (**6**) into the assembly lock mounts SXP AS (**2.5**) in the outside corner double support (**2.10**).
4. Push in until the correct dimension is reached.
5. Secure connecting fixture (**2.11**) with linch pin. (Fig. C4.08 + Fig. C4.09)

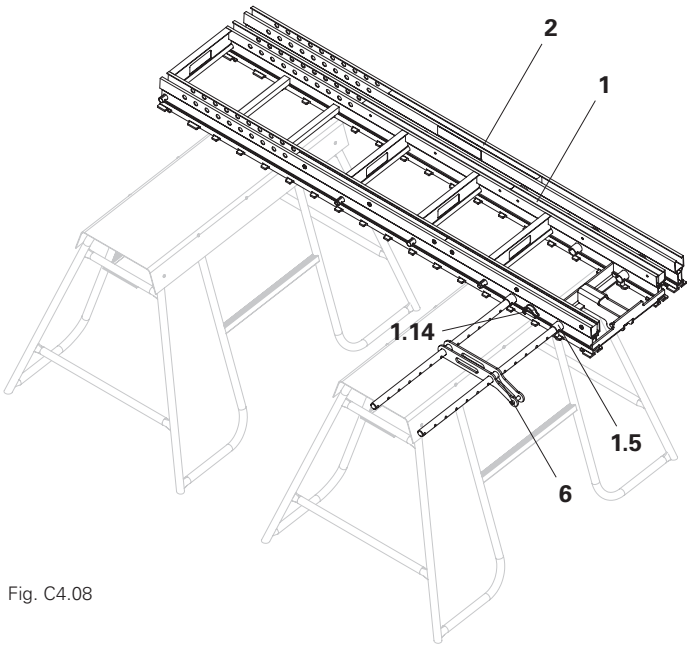


Fig. C4.08

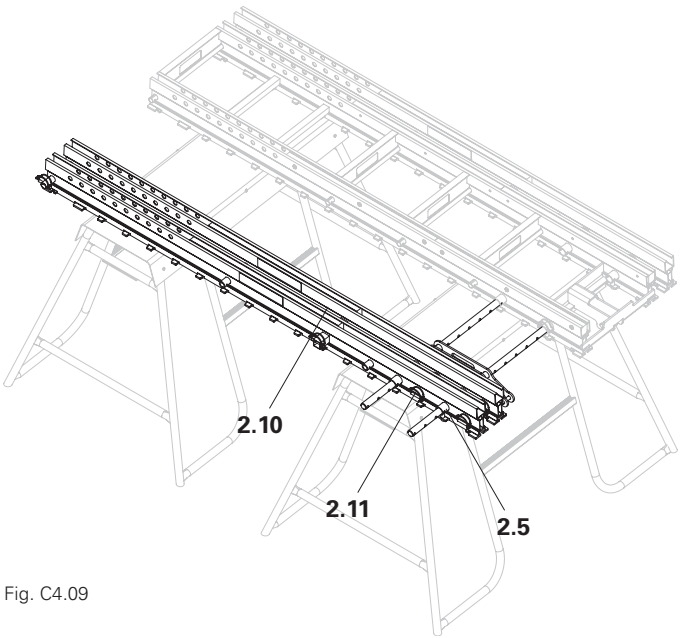


Fig. C4.09

C5 Column recessed – lower level

If the distance in the column area from one girder to the next is too large, a height compensation SXP HC (**5**) must be fitted to outside corner supports SXP CB (**2**) or compensation frame SXP COF (**1**). (Fig. C5.01 + Fig. C5.03) Alternatively, a squared timber 129 mm tall can be used instead of a height compensation SXP HC (**5**), see Section "Pre-assembly of height compensation SXP HC on the compensation frame SXP COF" on page 33.

1. Set up three more props with offset support head SXP OH (**4**).
   Make sure that the spacings are correct to carry out the next step.

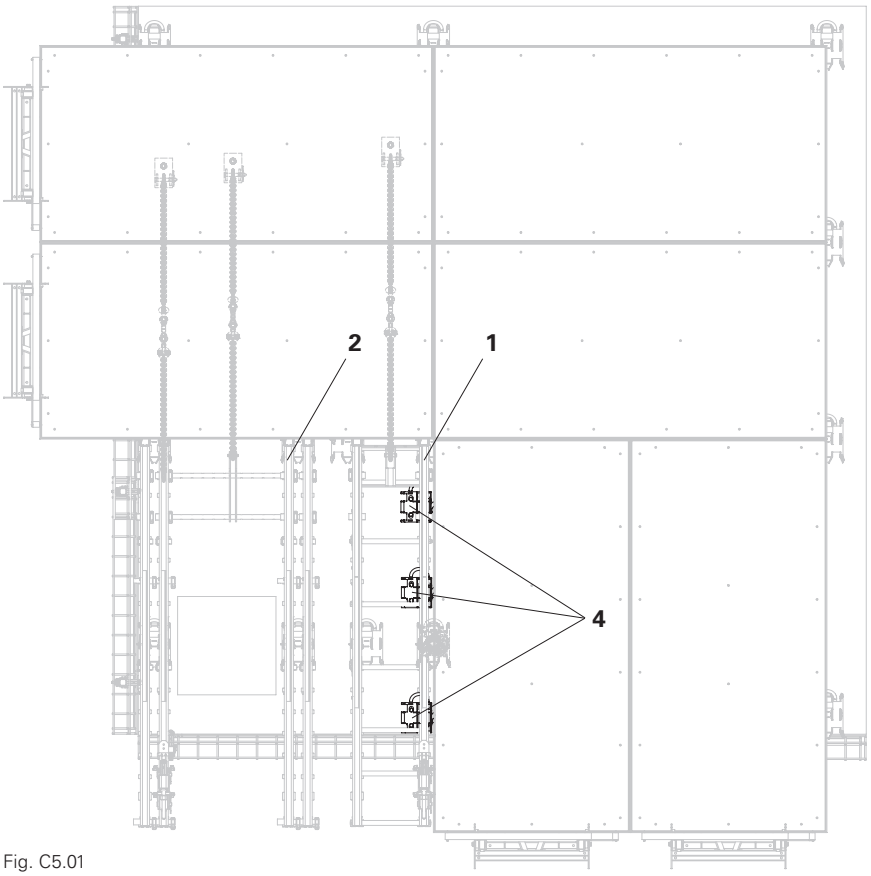


Fig. C5.01

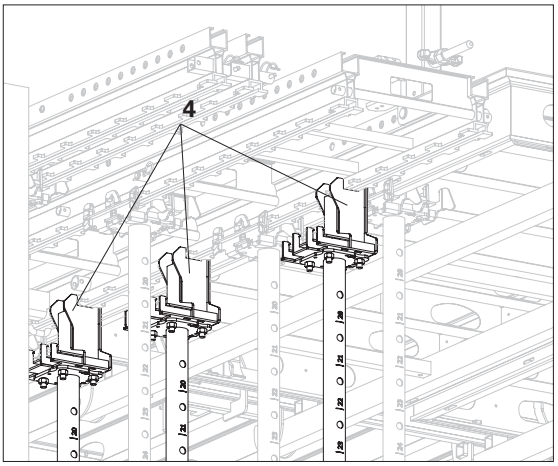


Fig. C5.01a

2. Hang the assembly consisting of outside corner double support (**2.10**), assembly lock SXP AS (**6**), compensation frame SXP COF (**1**) into the offset support heads SXP OH (**4**) and mount 3.0 kN bracing chains (**11**) centrally on the compensation frame SXP COF (**1**) and centrally on the assembly lock SXP AS (**6**), then tension them slightly. (Fig. C5.02)
3. Mount an outside corner post SXP CP (**3**) on the outside corner support SXP CB (**2**) close to the standard panel.
   Install the second outside corner post SXP CP (**3**) on the inner outside corner support (**2a**) of the outside corner double support (**2.10**) close to the column.
4. Slowly and evenly swing up the assembly consisting of outside corner double support (**2.10**), assembly lock SXP AS (**6**), compensation frame SXP COF (**1**) and 3.0 kN bracing chains (**11**) with the help of two shuttering aids SXP A (**8**) on both sides and set it down on the props (**10**) with prop heads.
5. Mount two more 3.0 kN bracing chains (**11**) (static chains) on the struts where the outside corner posts SXP CP (**3**) are located. (Fig. C5.03 + Fig. C6.01)

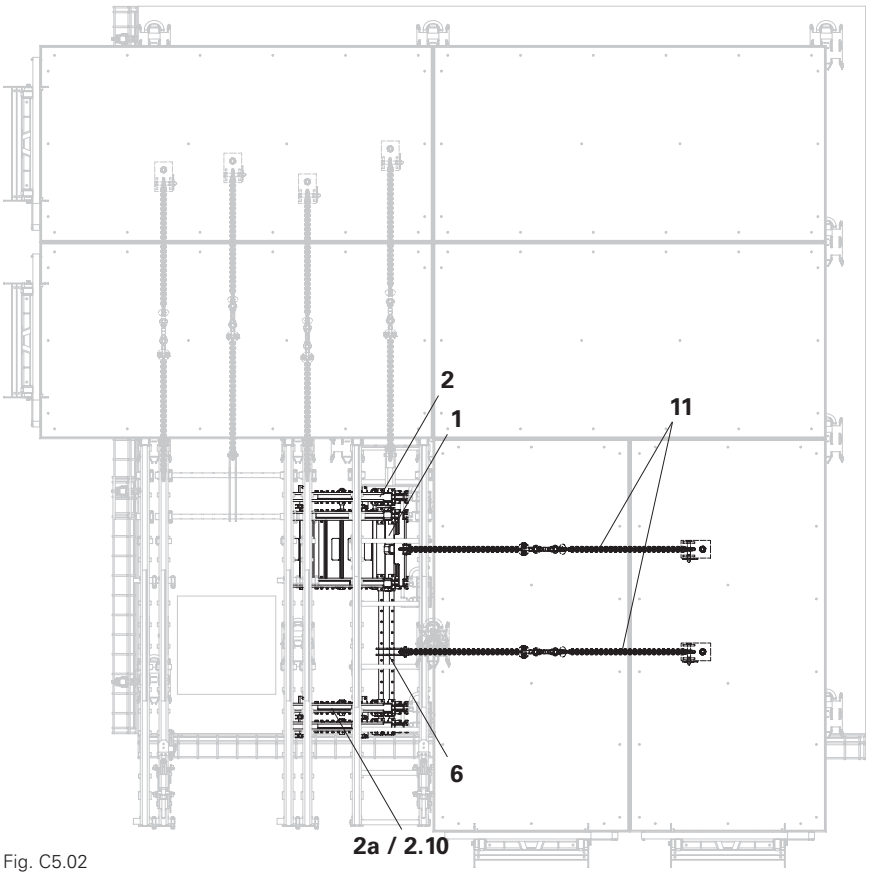


Fig. C5.02

Pay attention to any further bracings , see Section "Chain bracings" on page 50.

For the filler areas, see Section "Filler areas" on page 37.

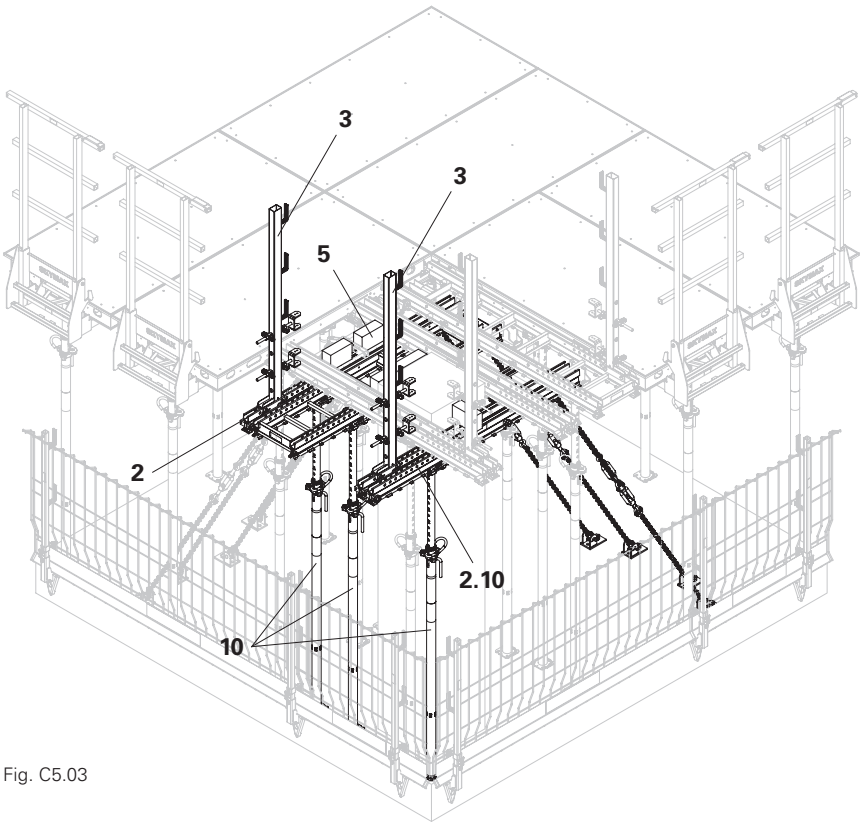


Fig. C5.03

C6 Column recessed

Chain bracings
All bracing chains must be installed at an angle of 60°.
A: A bracing chain is required on each compensation frame when installed on the bolt in the centre of the frame. These bracings are also required from a structural point of view.
B: Additional bracings required on the pin of the outside corner support and on the pin of the side girder at the compensation frame if an outside corner post is fitted to these girders. Exception: lateral frame girder (**X**) in upper level directly next to panel. No additional bracing is required on this girder.
C: Additional chains may be required to relieve the stop end formwork pressure.
- Stop end formwork pressure remains in the system (e.g. building open on both sides with continuous formwork):
  → No additional bracings required.
- Stop end formwork pressure must be transferred with the bracings at the outside corner (e.g. building open on one side or no continuous formwork):
  → Slab thickness < 30 cm: no additional bracings required.
  → If the slab thickness ≥ 30 cm, a total of at least 3 chains (A+B+C) are required on each side from a structural point of view.
  → If the projection Y of the panels is ≥ 600 mm, a total of at least 4 chains (A+B+C) are required on each side if the slab thickness ≥ 38 cm.

D: Assembly aid chains (cannot be used to carry static loads).
(Fig. C6.01)

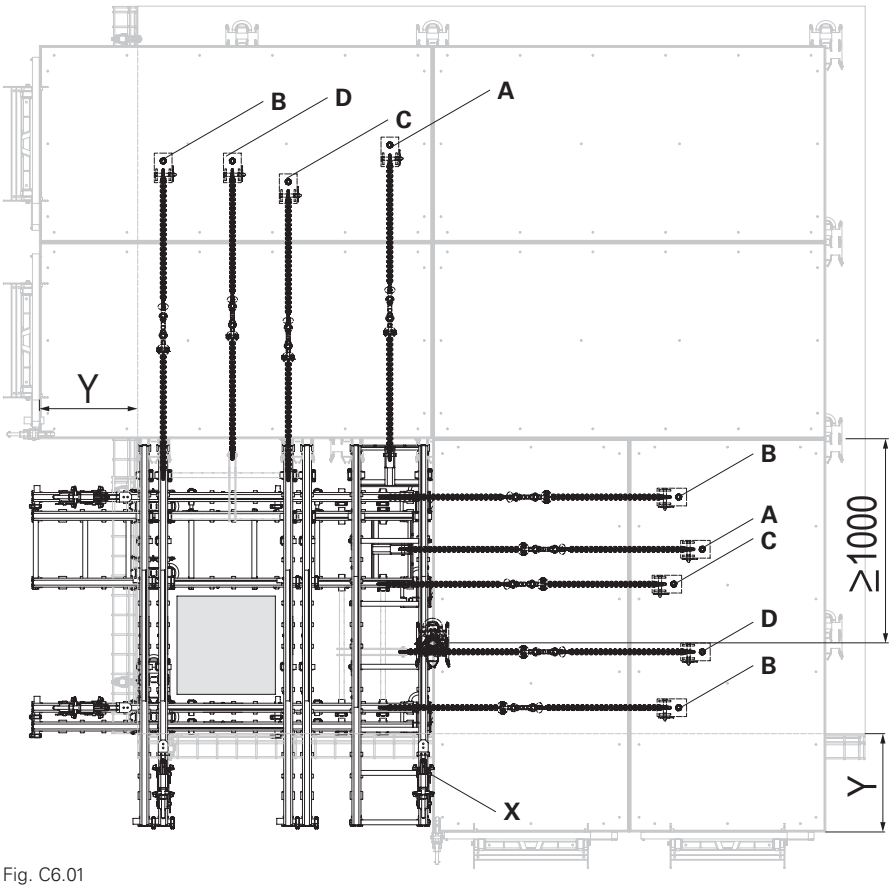


Fig. C6.01

Have all bracing chains been tightened? Have all necessary props been set? Are all gaps < 300 mm? Have all outside corner posts SXP CP been set? Have all height compensations SXP HC been installed?

To maintain a continuous formwork between the outside corner and the panels:
- Connect outside corner support and compensation beams in the upper level in longitudinal direction to the adjacent panel via prop heads.
- Connect the compensation frame in the upper level in the transverse direction with at least one further prop head to the other adjacent panel. Distance to corner support head ≥ 1000 mm.

C6 Column recessed

Danger

- There is a danger of falling when installing the guardrail boards (**12**), formlining and stop end formwork! This could result in serious injuries or even death.
  ⇒ Install from a safe working position and use PPE to prevent falling from a height.
- The guardrail boards/squared timbers/stop end formwork can slip out of the holders when climbing. Danger to life due to falling!
  ⇒ Do not climb on guardrail boards/ squared timbers/stop end formwork and side mesh barriers.

Installing guardrail, formlining and stop end formwork

The assembly of the guardrail, formlining and stop end formwork is carried out directly on the edge, as with the column, see Section "Installing guardrail, formlining and stop end formwork" on page 39.

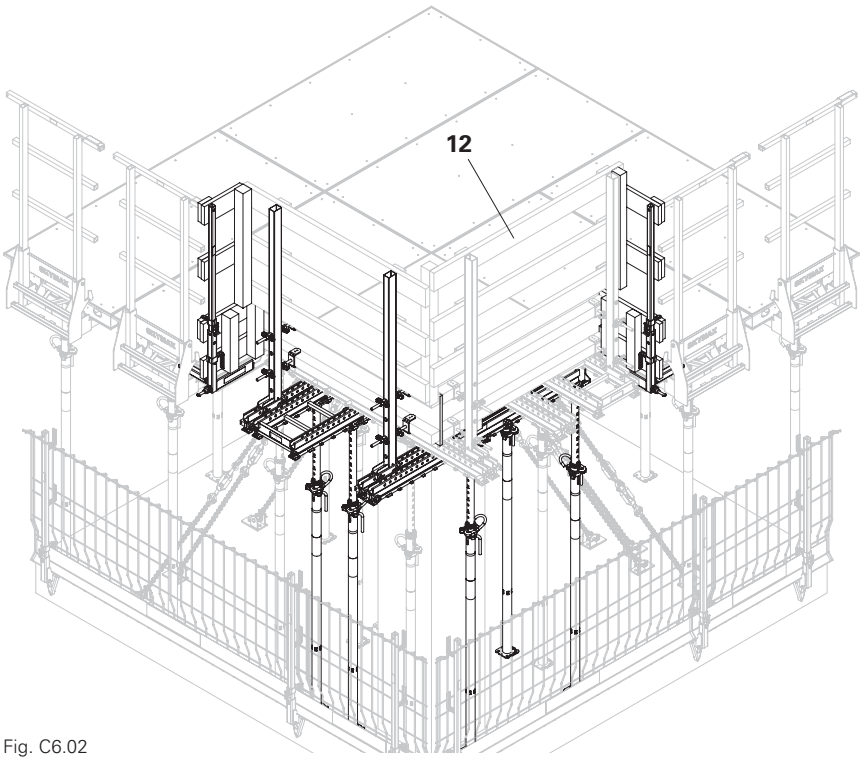


Fig. C6.02

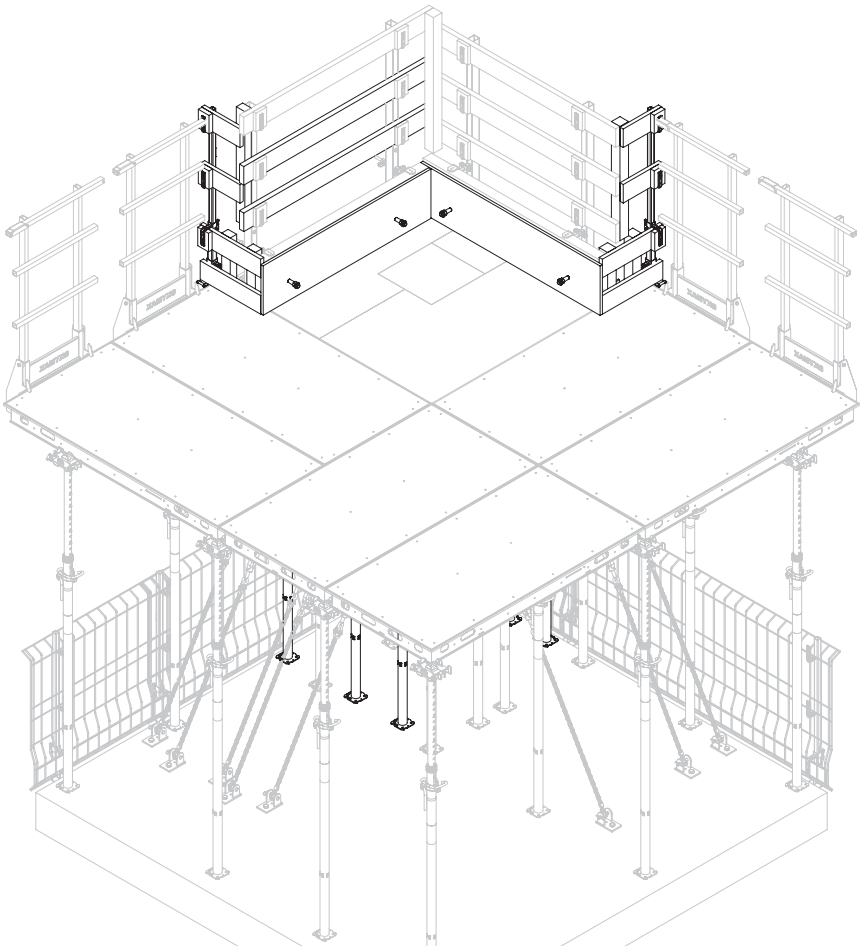


Fig. C6.03

C7 Without column – upper and lower level

The entire assembly of the SKYMAX outside corner without column is carried out like the assemblies with column directly at the edge or recessed column.
When assembling, always ensure that there are no gaps larger than 300 mm.

The compensation frame in the upper level must have a fixed connection (prop head (**X**)) to the adjacent panel in the transverse direction.

Assembly sequence

1. Set up the upper level as for the assembly with column directly at the edge or recessed column. Support with props (**10**). (Fig. C7.01)

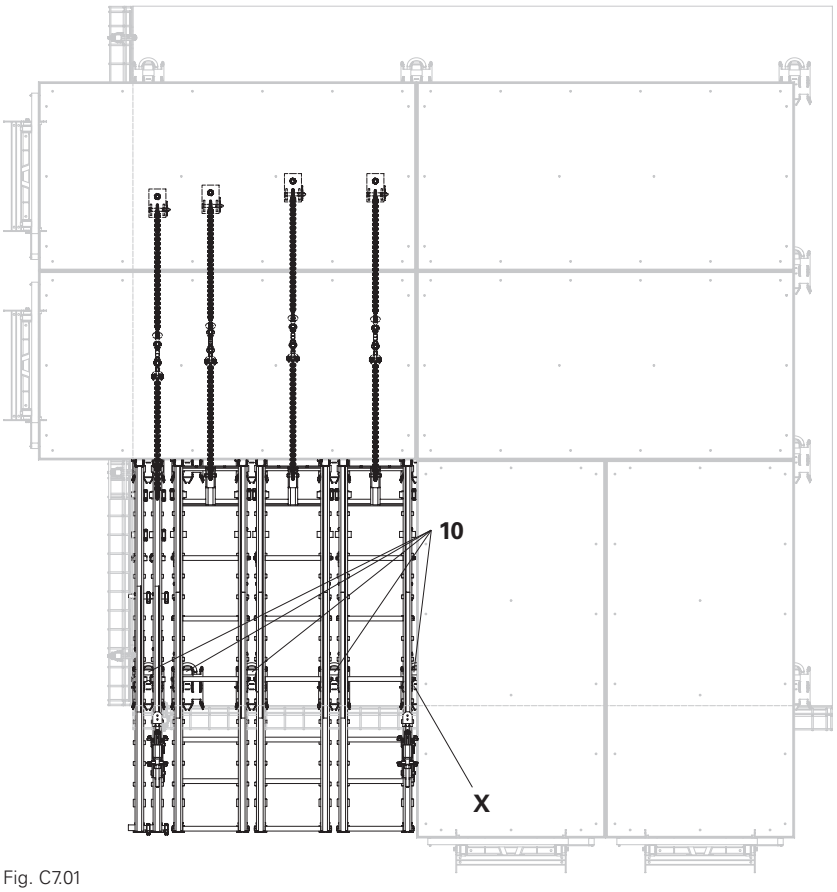


Fig. C7.01

C7 Without column – upper and lower level

2. Build up the lower level as in the assembly with column directly at the edge or recessed column so far that the props (**10a**) are not in the way.
3. Remove the props (**10a**) that are in the way. The elements of the lower level support the upper level. (Fig. C7.02)

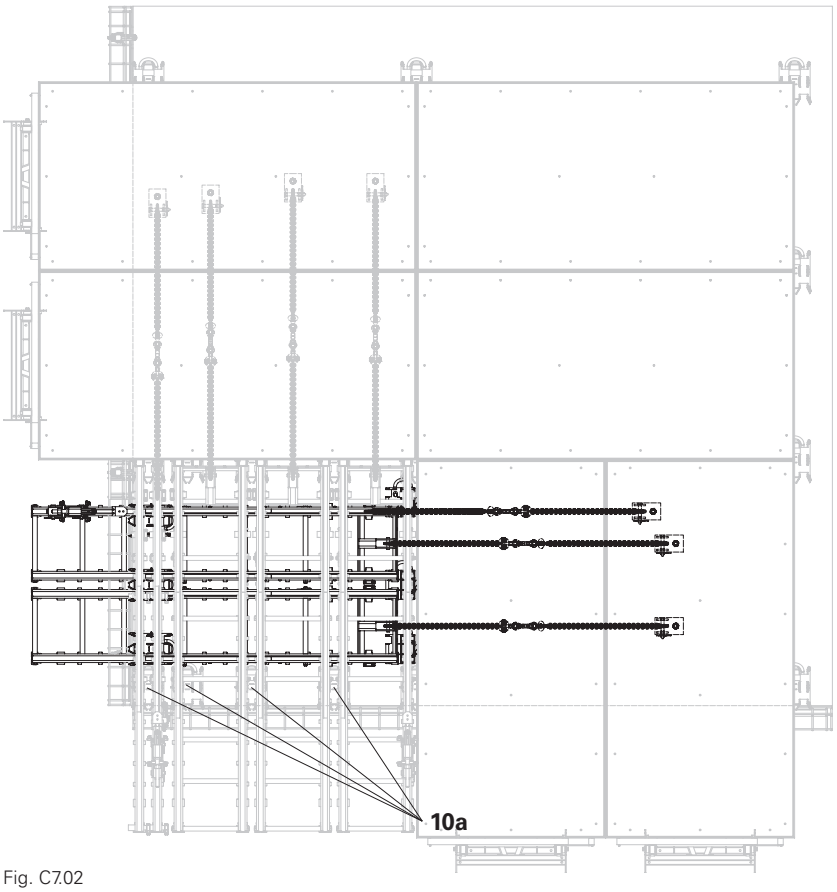


Fig. C7.02

4. Engage the prop (**10b**) and secure it with a tripod against falling over. (Fig. C7.03)
5. Install outside corner double supports (**2.10**) and support with required props. (Fig. C8.01)
6. Attach all required bracings, see Section "Chain bracings" on page 56.

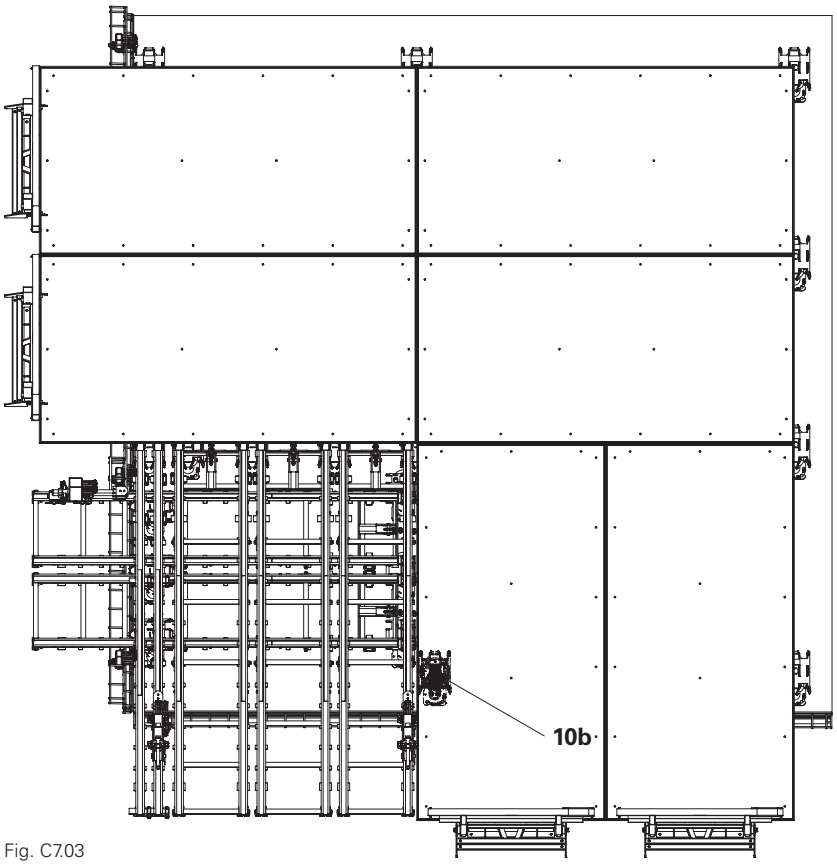


Fig. C7.03

Installing guardrail, formlining and stop end formwork

The rest of the assembly of the formlining, guardrail boards and stop end formwork is carried out as for column directly on the edge or column recessed, see Section "Installing guardrail, formlining and stop end formwork" on page 39.

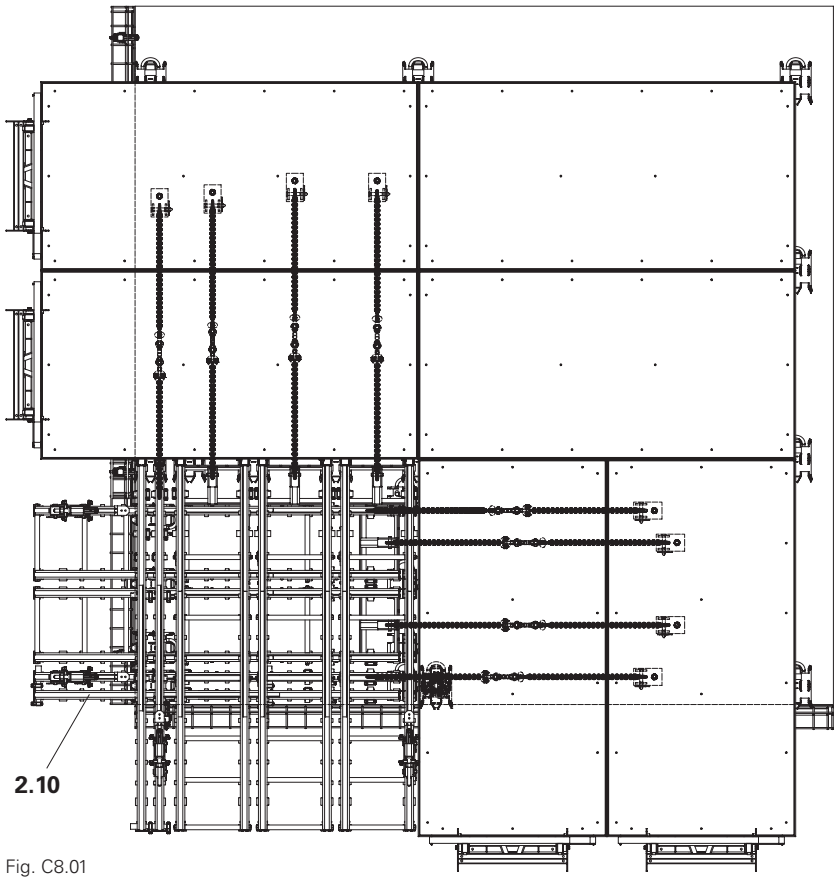


Fig. C8.01

Chain bracings
All bracing chains must be installed at an angle of 60°.

A: A bracing chain is required on each compensation frame when installed on the bolt in the centre of the frame. These bracings are also required from a structural point of view.

B: Additional bracings required on the pin of the outside corner support and on the pin of the side girder at the compensation frame if an outside corner post is fitted to these girders. Exception: lateral frame girder (**X**) in upper level directly next to panel. No additional bracing is required on this girder.

C: Additional chains may be required to relieve the stop end formwork pressure.

- Stop end formwork pressure remains in the system (e.g. building open on both sides with continuous formwork):
  → No additional bracings required.
- Stop end formwork pressure must be transferred with the bracings at the outside corner (e.g. building open on one side or no continuous formwork):
  → Slab thickness < 30 cm: no additional bracings required.
  → If the slab thickness ≥ 30 cm, a total of at least 3 chains (A+B+C) are required on each side from a structural point of view.
  → If the projection Y of the panels is ≥ 600 mm, a total of at least 4 chains (A+B+C) are required on each side if the slab thickness ≥ 38 cm.

In the example shown, bracing chains C are not required because sufficient bracing chains (A+B) are available.

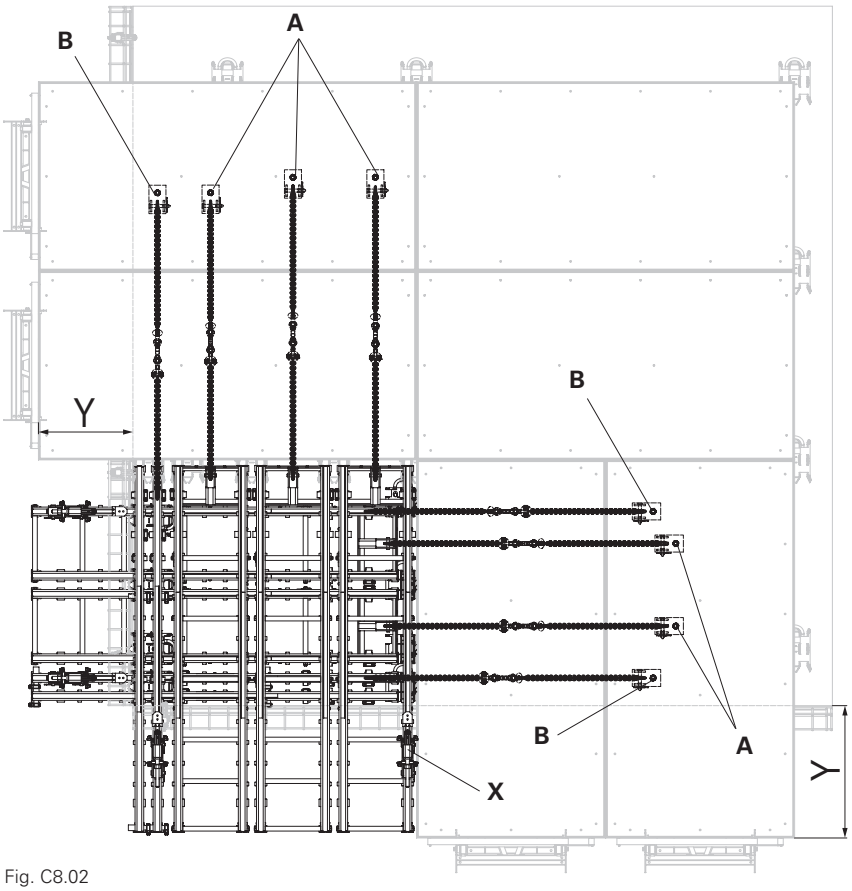


Fig. C8.02

To maintain a continuous formwork between the outside corner and the panels:

- Connect outside corner support and compensation beams in the upper level in longitudinal direction to the adjacent panel via prop heads.
- Connect the compensation frame in the upper level in the transverse direction with at least one further prop head to the other adjacent panel. Distance to corner support head ≥ 1000 mm.

C9 Equivalent load according to OSHA

Lateral closing of the lateral protection on the adjacent panel:
Additional bracing required to support the horizontal equivalent load according to OSHA.

If the additional OSHA load is required in the marked area, the following rules (non-positive connection and additional bracings) must be attached (applies to all three cases):

A: Horizontal equivalent load on lateral protection requires additional bracing on the panel.
B: Possible position of a vertical additional bracing at the grip holes of the cross strut.
C: With slab projection panel 500 mm: It is possible to position the bracing one cross strut further out.

Vertical bracing with a 3 kN anchor chain at 90°.

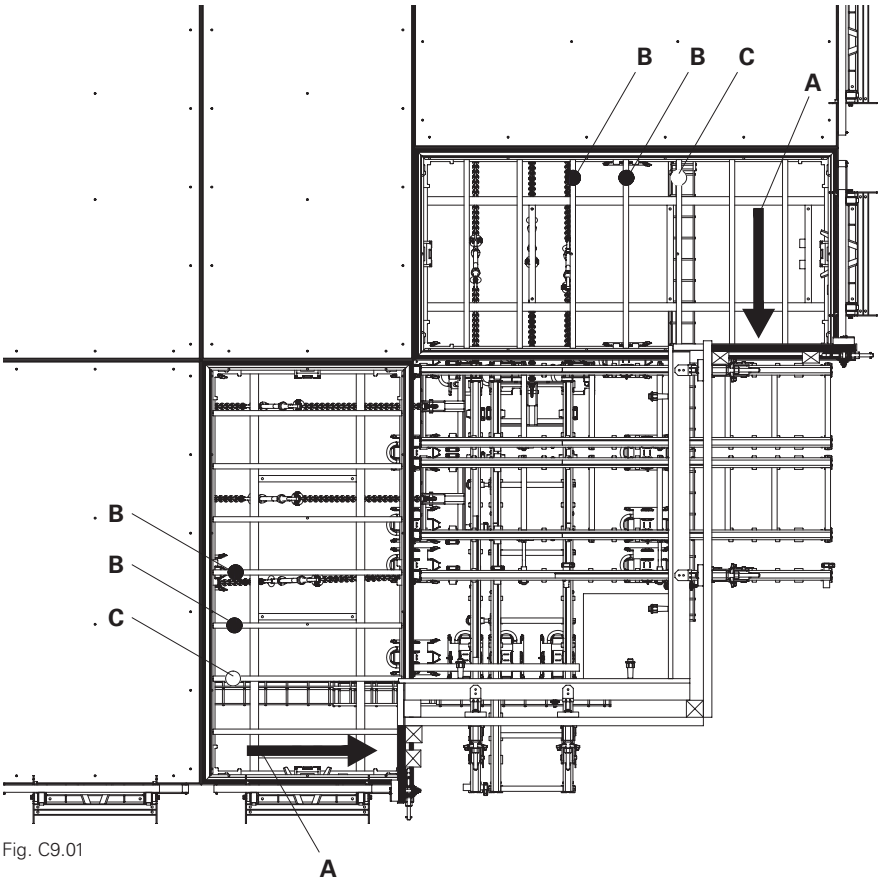


Fig. C9.01

C9 Equivalent load according to OSHA

Only applies to column directly on the edge:
If, in the upper level from outside corner post to outside corner post, the dimension is ≤ 800 mm, an additional Skydeck tension sleeve SAO + 3 kN bracing chain (**X**) must be installed at 90° in the shadow of the column under OSHA load.

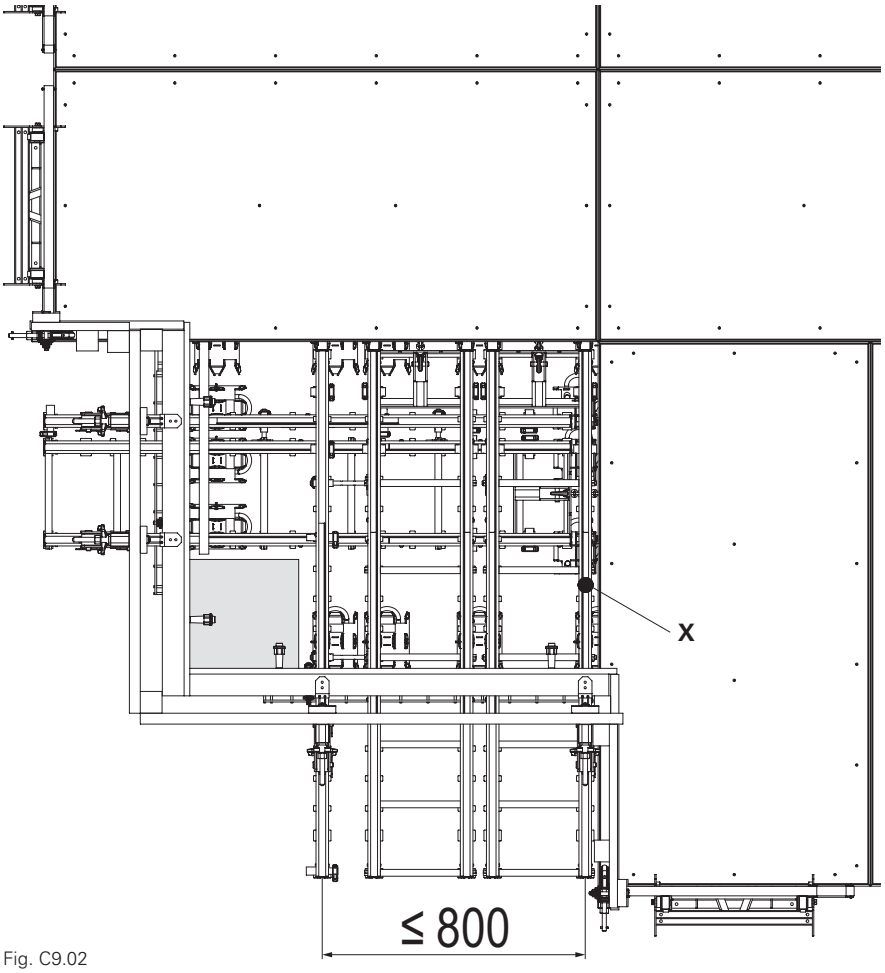


Fig. C9.02

D1 Dismantling the outside corner

Danger

- There is a danger of falling during dismantling!
  This could result in serious injuries or even death.
  ⇒ Dismantle from a safe working position and use PPE against falling from heights.
- The guardrail boards/squared timbers/stop end formwork can slip out of the holders when climbing.
  Danger to life due to falling!
  ⇒ Do not climb on guardrail boards/squared timbers/stop end formwork and side mesh barriers.

The SKYMAX outside corner is dismantled in the reverse order of assembly. Note that concreting and nailing or screwing the formlining can make the elements difficult to remove in some cases. For this reason, dismantling should be done step by step and no step should be omitted.

When releasing the elements from the slab, it is important that an additional shuttering aid is always attached to the panel to be swung down and held by a second person, so that the panel does not fall down suddenly when it is released.
The formlining should be additionally supported (see Instructions for Assembly and Use for SKYMAX large panel slab formwork) so that when the outside corner components are dismantled, the formlining does not fall down suddenly!

After dismantling, clean the SKYMAX elements as described in the Instructions for Assembly and Use for SKYMAX large panel slab formwork, and inspect them for damage so that the functions are guaranteed for the next use!

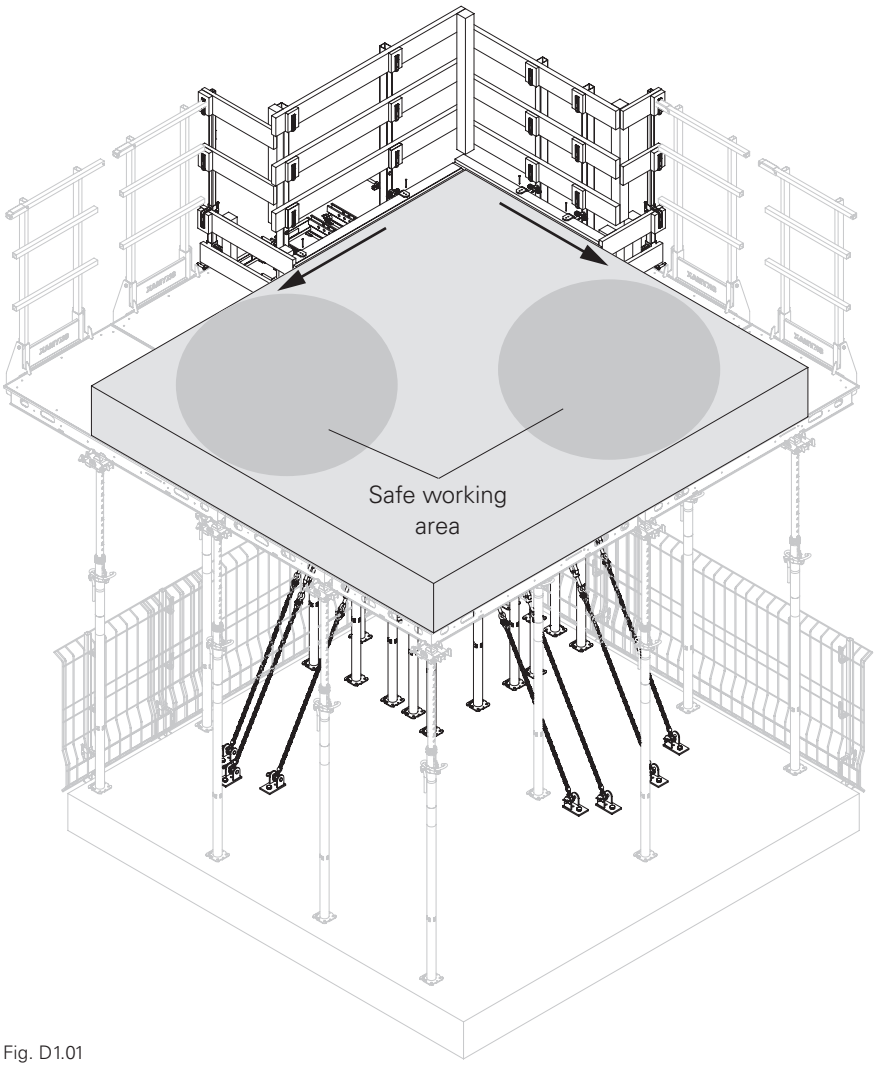


Fig. D1.01

Store and transport components in such a way that no unintentional change in their position is possible. Detach lifting accessories and lifting gear from the lowered components only if they are in a stable position and no unintentional change is possible.

Do not drop the components.

Use PERI lifting accessories and lifting gear and only those load-bearing points provided on the component.

During the relocation procedure
- ensure that components are picked up and set down in such a way that unintentional falling over, falling apart, sliding, falling down or rolling is avoided.
- no one is allowed to remain under the suspended load.
- use suitable load-carrying equipment to move the components and always use the designated load-bearing points on the components.
- always use a guide rope when moving components.
- move components onto a clean, flat and sufficiently load-bearing substrate only.

The access areas on the construction site must be free of obstacles and tripping hazards and must also be slip-resistant.

For transportation, the substrate must have sufficient load-bearing capacity.

Use original PERI storage and transport systems, e.g. crate pallets, pallets or stacking devices.

Pallet RP 80x150/2

Space for 5 compensation frames
SXP COF (Fig. E2.01)
or
space for 32 outside corner supports
SXP CB (Fig. E2.02)
or
space for 33 outside corner posts
SXP CP. (Fig. E2.03)

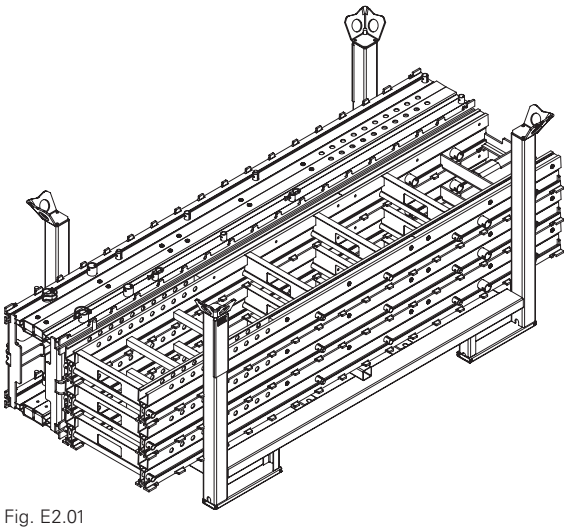


Fig. E2.01

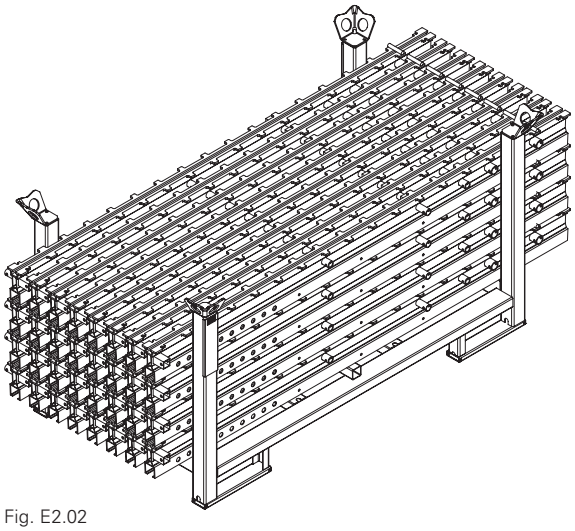


Fig. E2.02

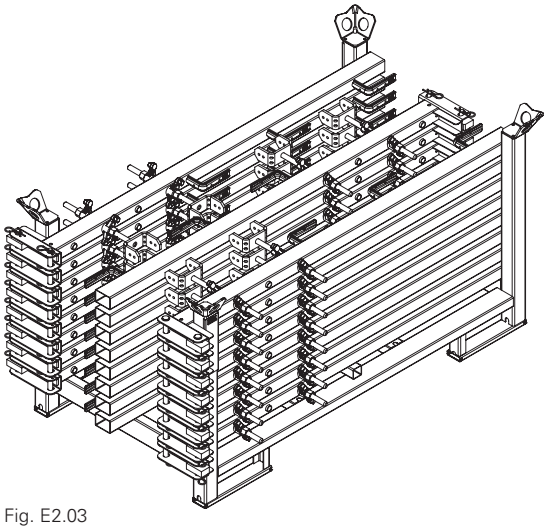


Fig. E2.03

Hardware box 80x120

Space for 48 height compensations SXP HC (Fig. E2.04)
or
space for 21 assembly locks SXP AS (Fig. E2.05)
or
space for 63 offset support heads SXP OH. (Fig. E2.06)

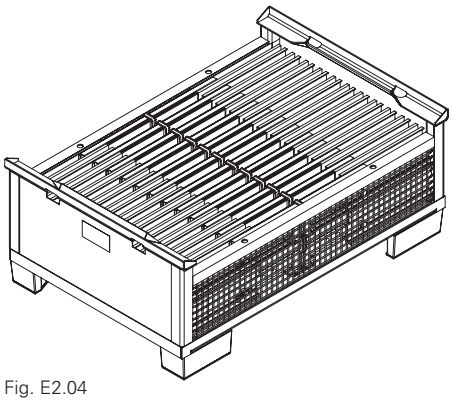


Fig. E2.04

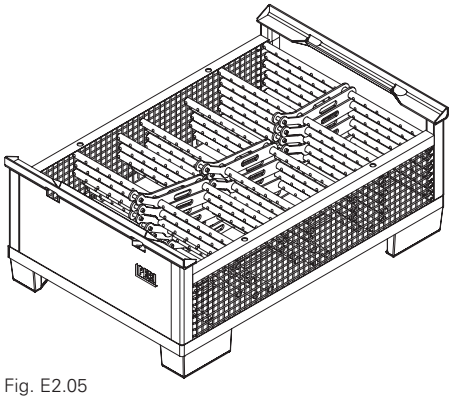


Fig. E2.05

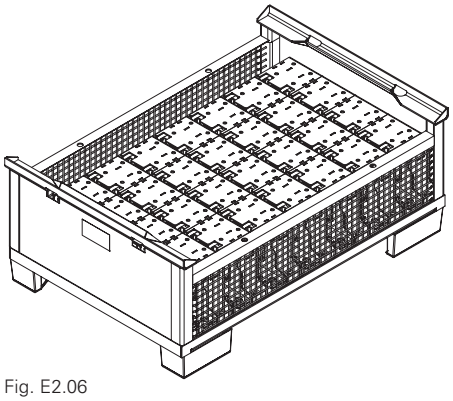
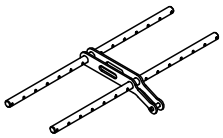
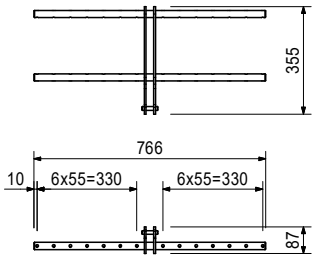


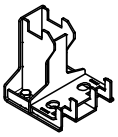
Fig. E2.06

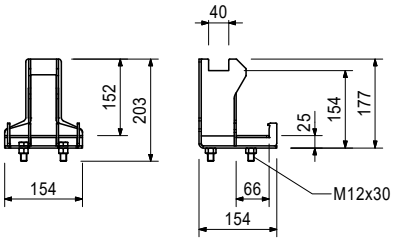
Art no.	Weight [kg]	
137672	6.320	**ASSEMBLY LOCK SXP AS**





Art no.	Weight [kg]	
137667	2.940	**OFFSET SUPPORT HEAD SXP OH**

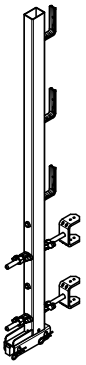


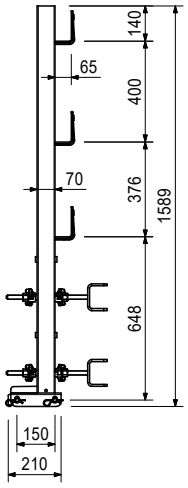


Consists of

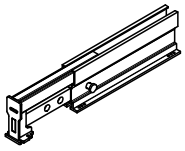
4 pc 102120 bolt ISO 4017 M12 x 30-8.8, galv. 4 pc 710330 groove ISO 4032 M12-8, galv.

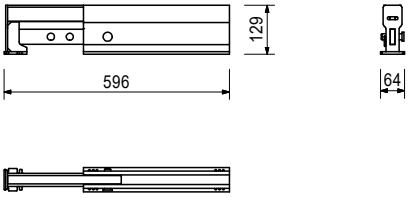
Art no.	Weight [kg]	
137685	15.200	**OUTSIDE CORNER POST SXP CP**



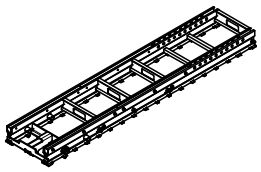


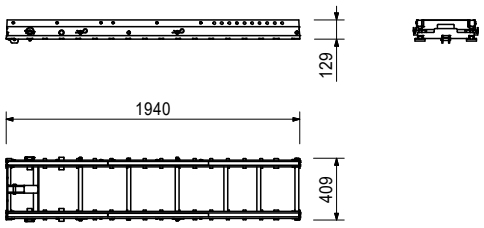
Art no.	Weight [kg]	
137716	2.510	**HEIGHT COMPENSATION SXP HC**



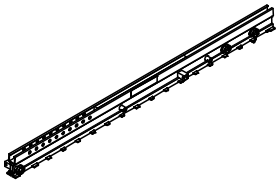


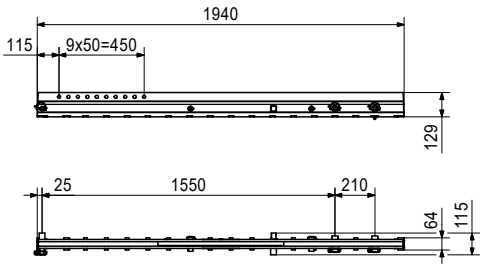
Art no.	Weight [kg]	
137712	18.800	**COMPENSATION FRAME SXP COF**





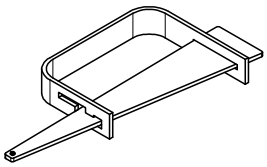
Art no.	Weight [kg]	
137709	7.420	**OUTSIDE CORNER SUPPORT SXP CB**

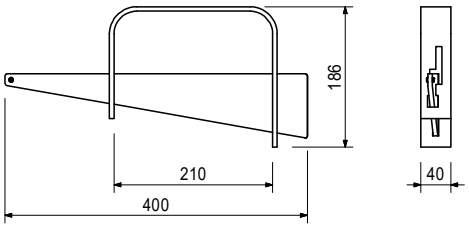




Art no.	Weight [kg]	
027940	1.840	**BRACE CLAMP 48-76MM**

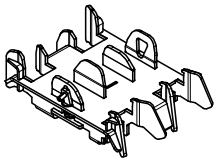
For assembly of 3 x 15 cm stiffening boards at slab props Ø 48 – 76 mm.

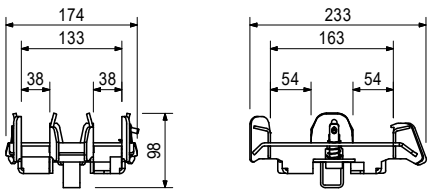




Art no.	Weight [kg]	
133701	2.450	**PROP HEAD SXP S**

Head for all positions with quick-release fastener.





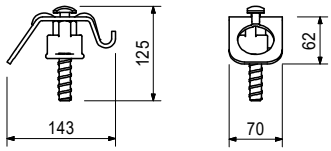
Art no.	Weight [kg]	
061310	0.996	**TENSION SLEEVE SAO**

For bracing cantilevered main beams.

Notes

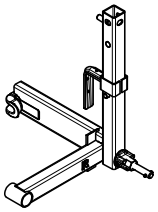
Permissible tension force 3.0 kN.

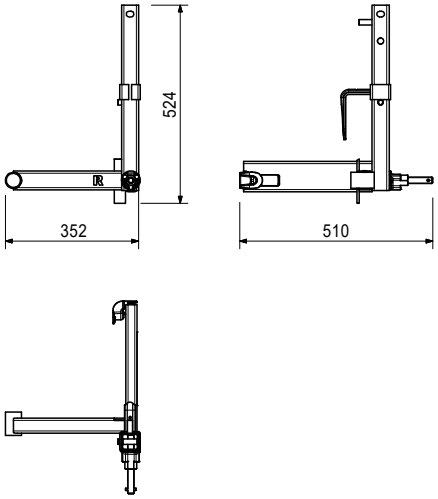




Art no.	Weight [kg]	
136181	6.730	**GUARDRAIL POST HLR. SXP GPR T2**

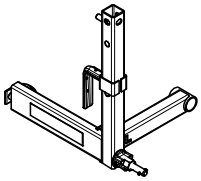
For aluminium and polymer panels.

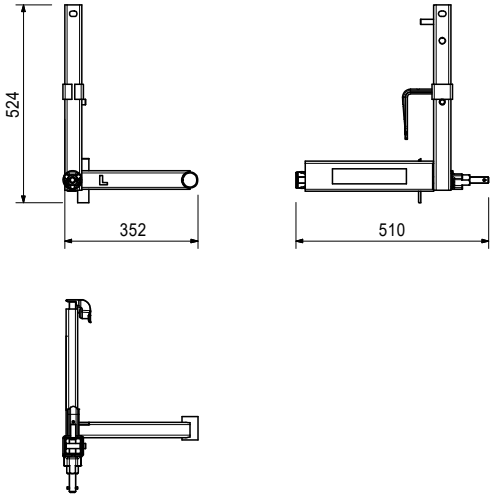




Art no.	Weight [kg]	
136187	6.740	**GUARDRAIL POST HLR. SXP GPL T2**

For aluminium and polymer panels.





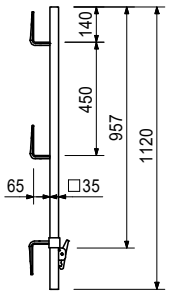
Art no.	Weight [kg]	
117325	4.270	**POST PP 110**

For the fixation of the Side-Mesh-Barriers.

Notes

Maximum distance of posts with Side-Mesh-Barrier: PMB 260 max. 2.40 m.

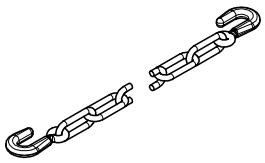


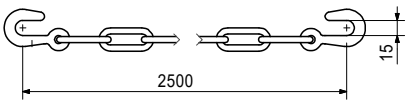


Art no.	Weight [kg]	
065073	1.370	**ANCHOR CHAIN L=2.5M, 3.0KN**

Notes

Permissible tension force 3.0 kN.

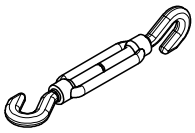


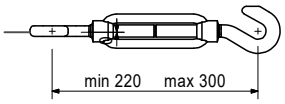


Art no.	Weight [kg]	
065074	0.450	**TURNBUCKLE M12, 3.0KN**

Notes

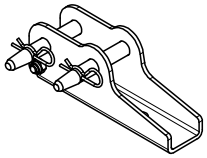
Permissible tension force 3.0 kN.

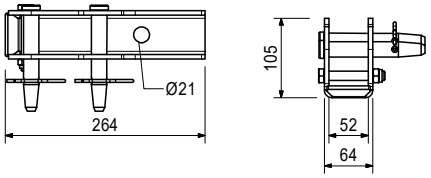




Art no.	Weight [kg]	
126666	3.040	**BASE PLATE-3 F. RS 210-1400**

For assembly of Push-Pull Props RS 210, 260, 300, 450, 650, 1000 and 1400.



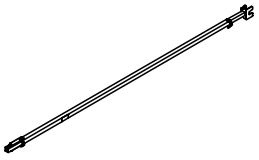


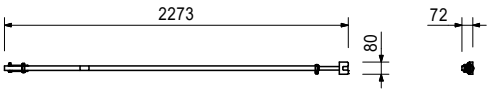
Consists of

2 pc 018060 cotter pin 4/1, galv.
2 pc 105400 pin Ø 20 x 140, galv.
1 pc 113063 bolt ISO 4014 M12 x 80-8.8, galv.
1 pc 113064 hex nut ISO 7042-M12-8-G, galv.

Art no.	Weight [kg]	
134472	2.820	**SHUTTERING AID SXP A**

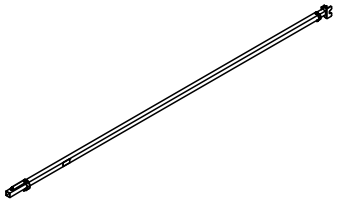
For comfortable and safe shuttering and striking.

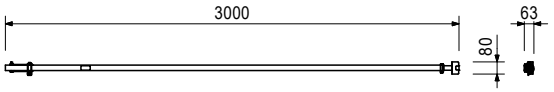




Art no.	Weight [kg]	
136590	4.410	**SHUTTERING AID SXP A 530**

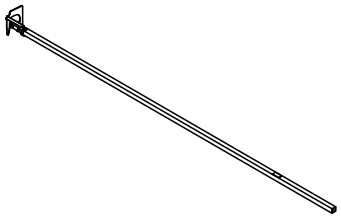
For shuttering up to a slab height of 5.30 m.

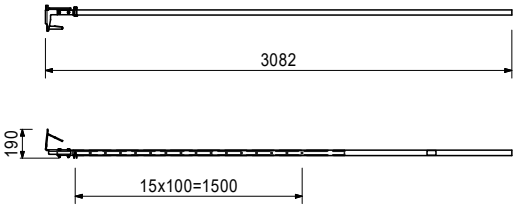




Art no.	Weight [kg]	
136596	4.240	**PROP GUIDE SXP PG**

For easy shuttering up to a slab height of 5.30 m.



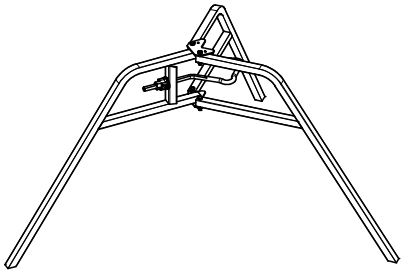


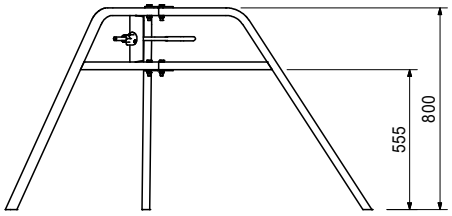
Art no.	Weight [kg]	
028000	9.190	**UNIVERSAL TRIPOD 57-120**

Erection aid for slab props with Ø 57 – 120 mm and 120 x 120 mm. Can also be used in combination with MULTIPROP MP Slab Props and all slab props with Base MP 50.

Notes

Only use as erection aid!



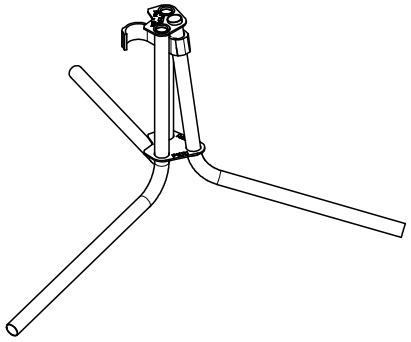


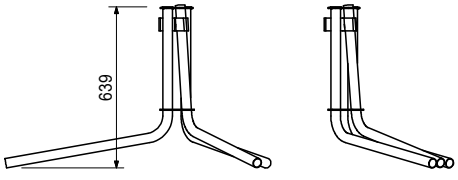
Art no.	Weight [kg]	
107152	5.810	**TRIPOD 44-64**

Erection aid for PEP Ergo Slab props with Ø 44 – 64 mm.

Notes

Only use as erection aid!

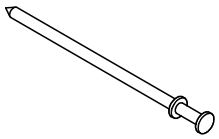


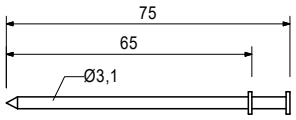


Art no.	Weight [kg]	
018280	1.000	**DOUBLE HEAD NAIL L=65MM**

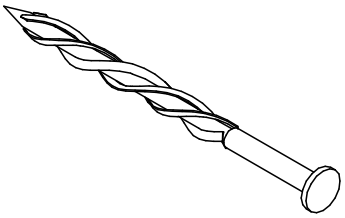
Notes

Delivery unit: carton with 1000 pieces.





Art no.	Weight [kg]	
		Screwnails, galv.
024530	0.001	**SCREWNAIL 40 MM, GALV.**
024310	0.005	**SCREWNAIL 70 MM, GALV.**
024350	0.010	**SCREWNAIL 90 MM, GALV.**

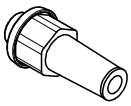


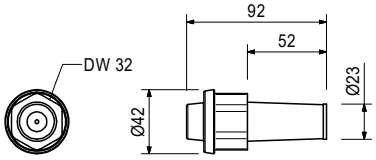
Art no.	Weight [kg]	
065039	0.075	**STOPEND SLEEVE DW 15**

Anchoring for PERI stopend systems. With nailed plugs.

Notes

Permissible load: see PERI Design Tables.



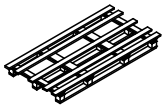


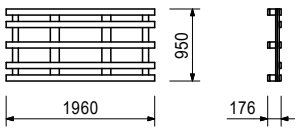
Accessory (not included)

065060	0.001	**PLUG FOR STOPEND SLEEVE**

Art no.	Weight [kg]	
135466	25.700	**ONE WAY PALLET SXP TPO 200X100**

For stacking and transportation of panels SXP P 200.



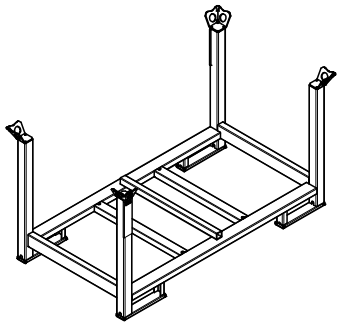


Art no.	Weight [kg]		L [mm]
103429	45.300	**PALLET RP 80X150/2, GALV.**	1500

For stacking and transporting formwork and scaffolding components.

Notes

Follow Instructions for Use!

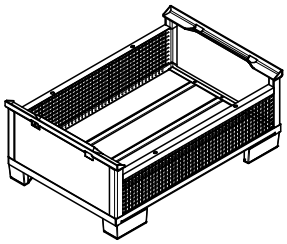


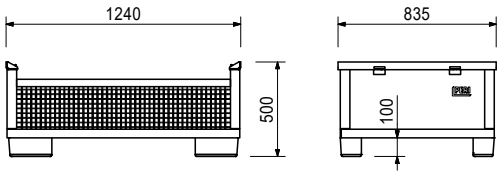
Art no.	Weight [kg]	
025660	66.500	**HARDWARE BOX 80X120, GALV.**

For stacking and transportation of formwork and scaffold components.

Notes

Follow Instructions for Use!
Capacity approx. 0.28 m³
Permissible load-bearing capacity 1.5 t.





The optimal system for all projects and every requirement



Wall formwork



Column formwork



Slab formwork



Climbing systems



Bridge formwork



Tunnel formwork



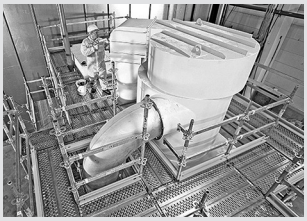
Shoring



Working scaffolds for construction



Working scaffolds for facades



Working scaffolds for industry



Means of access



Safety scaffolds



Safety systems



System-independent accessories



Services

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