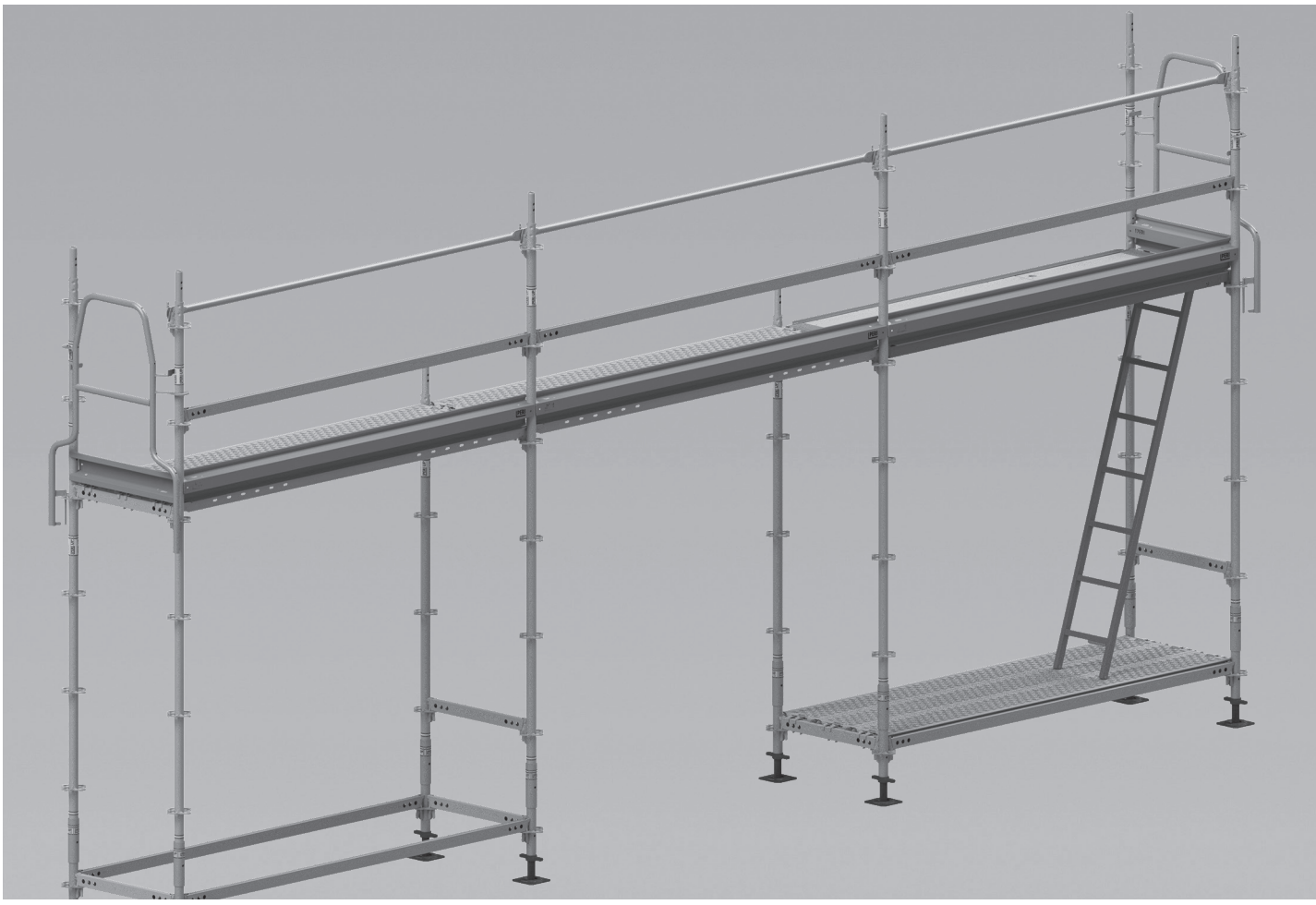
PERI UP Flex

Facade Scaffold 75 and 100

Instructions for Assembly and Use – Standard Configuration – Version 2.0



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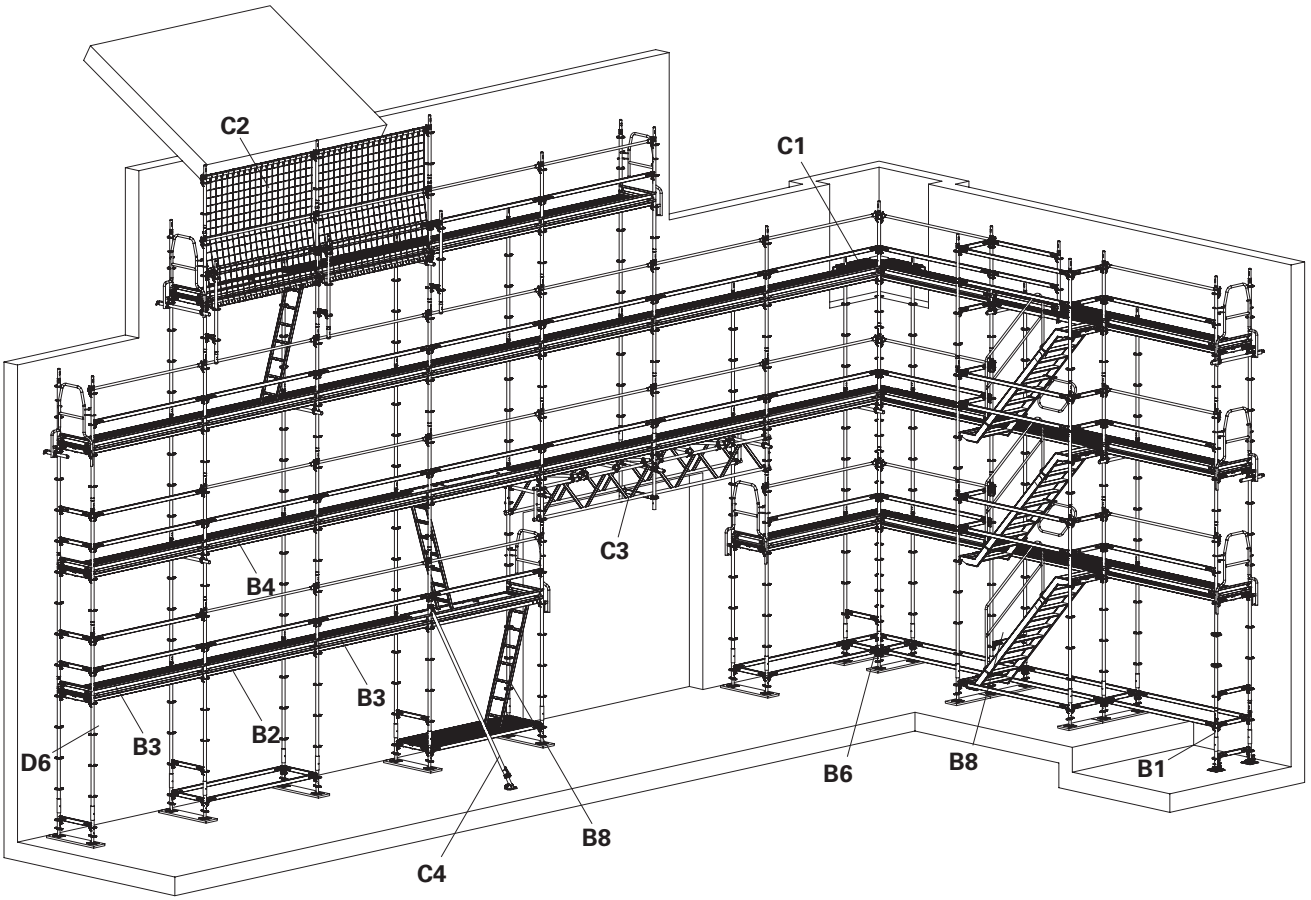
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Main components



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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, illustrations are sometimes incomplete. Any safety equipments that are not shown in these illustrations must be incorporated nonetheless.

Terminology
Components are not always named in full so that they are easier to read. All components deemed valid according to the program overview may be used. Exceptions are specified.

Example:
– Horizontal ledger
corresponds to:
– Horizontal Ledger UH Plus
– Horizontal Ledger UH-2.

Target groups

Scaffolding contractors/contractors
These assembly instructions are intended for contractors who either
- Assemble, modify and dismantle the scaffolding, or
- Use them, e.g. for pouring concrete, or
- Allow them to be used for other operations, e.g. carpentry or electrical work.

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 person
- Is appointed by the scaffolding contractor,
- Must be on site for all scaffolding work,
- Prepares and updates the plan for assembly, modification and dismantling,
- Prepares and updates the plan for use of the scaffold by the scaffold user,
- Supervises the assembly, modification and dismantling work (supervisor).

Competent persons qualified to carry out inspections
Due to the specialist knowledge gained from professional training, work 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
Scaffolds 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 scaffolding in an understandable form and language.
- Description of the measures for safely assembling, modifying or dismantling the scaffold.
- Naming 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 scaffolding, as well as the personnel concerned.
- Details regarding permissible loads.
- Description of all other risks and dangers associated with assembly, modification or dismantling operations.



- **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,** **(see page 13)**

* 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.

Product description

Purpose of these assembly instructions
These Instructions for Assembly and Use are based on the Approval PERI UP Flex Scaffold System Z-8.1-863.

They describe the standard configuration for a facade scaffold as a working and safety scaffold according to the provisions set down in DIN 4420-1 as well as the requirements as a scaffold system according to EN 12810 and EN 12811.

These Instructions for Assembly and Use show the assembly
- with scaffold width 75 cm,
- with Steel Decks UDG-2,
- with Toe Board UPY.

The assembly process with
- a scaffold width of 100 cm,
- other decks,
- Toe Board UPF

is carried out in the same way.

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

Features
The PERI UP Flex Scaffold System is a modular scaffold with various application possibilities. These Instructions for Assembly and Use only address the facade scaffold variant.

For use as working scaffold in:
Flex 75:
Load Class 1 – 3 according to EN 12811-1
0.75 – 2.00 kN/m².

Flex 100:
Load Class 1 – 4 according to EN 12811-1
0.75 – 3.00 kN/m².

Fulfils the requirements for safety scaffolds (edge and roof edge protection scaffolds for falling heights ≤ 2.0 m, protection roofs) according to DIN 4420-1.
The standard configuration covers a scaffold assembly with a height of 24 m plus the maximum spindle extension.

Technical data
System width: 75 cm or 100 cm
Decking width: 25 cm or 75 cm
Scaffold bay lengths:
50 / 75 / 100 / 125 / 150 / 200 / 250 / 300 cm

Product description according to EN 12810:
PERI UP Flex 75 EN 12810-3D-SW06/ 300-H2-A-LS

PERI UP Flex 100 EN 12810-4D-SW09/ 300-H2-A-LS

Explanation:
3 = Load Class 3 (LC 3= 2.00 kN/m²)
4 = Load Class 4 (LC 4 = 3.00 kN/m²)
D = decking with drop test suitable as safety scaffold
SW06 = Width Class 06 (0.6 ≤ w < 0.9 m)
SW09 = Width class 09 (0.9 ≤ w < 1.2 m)
300 = bay length ≤ 300 cm
H1/H2 = height class depending on the anchoring used.
A = without cladding
B = with cladding
LS = equipment with ladder and stairs

Cleaning and maintenance instructions

Clean the scaffold components after each use to maintain the value and operational readiness of the PERI products over the long term.

Some repair work may also be inevitable due to the tough working conditions.



The contractor must ensure that the personal protective equipment required for cleaning, maintenance and repair work, e.g.
- Safety helmet,
- Safety shoes,
- Safety gloves,
- Safety goggles,

is available and used as intended.

The following instructions should help to keep cleaning and maintenance costs as low as possible.

Cleaning tools must be adapted to the respective surfaces of the components so that they are not damaged.

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

Do not use plastic components if fibre reinforcements are exposed.

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.

Components with wood parts are to be stored in well-ventilated and dry conditions.

Any repairs to PERI products are to be carried out by PERI qualified personnel only.

Disposal

Dispose of in accordance with the relevant national regulations.

Additional technical documentation

Approvals:
- Z-8.22.863 PERI UP Flex
- Z-8.1-957 PERI UP Easy

Instructions for Assembly and Use:
- PERI UP Scaffolding Kit – Core components
- PERI UP Flex Stair 75
- PERI UP Flex Staircase 100 and 125 with Deck UDG
- PERI UP Easy Facade Scaffold 67 and 100, Standard Variant

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 an application with a potential safety risk, e.g. risk of falling.

Deviations from the standard configuration must be verified for the application by means of separate strength and stability calculations (Industrial Safety Regulation Appendix 1, No. 3.2.1) and explicitly reflected in the assembly instructions.

All components listed in the program overview may be used for assembly. Other components are not permitted. Exceptions are named, or must be planned and verified on a project-specific basis.

The use of other products and spare parts is not allowed.
Changes to PERI components are not permitted.

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

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. However, these Instructions for Assembly and Use are not a substitute for a 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
- Functional correctness.

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.
- Scaffold tubes: galvanised steel tubing with minimum dimensions Ø 48.3 x 3.2 mm according to EN 12811-1 2004-3 4.2.1.2.
- scaffold 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.

Before and after exceptional occurrences that may have an adverse effect on the safety of the scaffold system, the contractor must immediately
- Produce another risk assessment and make use of its results to take suitable steps to guarantee the stability of the scaffold 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 identify and rectify any damage in good time in order to guarantee safe use of the scaffold system.

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

Assembly, modification and dismantling work
Assembly, modification or dismantling of scaffold systems may only be carried out by qualified persons under the supervision of a competent person. 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 the Instructions for Assembly and Use, the contractor must create installation instructions to guarantee safe assembly, modification and dismantling of the scaffold system.

Before initial use, the safe functioning of the scaffold must be checked by a person qualified to carry out the inspection. The results of the inspection must be documented in an inspection log.



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

is available and used as intended.

The scaffolding is disassembled by reversing the assembly sequence as described in these Instructions for Assembly and Use.
Comply with the respective assembly descriptions and safety instructions when making modifications or additions to the scaffolding.



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.
For verified attachment points, see Section "Verified attachment points" on page 18.
The PPE against falling from a height that is to be used 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 scaffold systems to be used, is responsible for ensuring that the equipment is in good condition.

If the scaffold 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 then be coordinated.

When scaffolds 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 scaffolding free of dirt, objects, snow and ice.
Close off the scaffold in extreme weather conditions.

System-specific

The load-distributing support used, such as planking, must match the respective substrate. If multiple layers are required, planks are to be arranged crosswise.
It must be ensured that the scaffolding cannot shift in a horizontal direction, irrespective of what substrate is being used.

Hatches close automatically. Do not disable the mechanism.

Couplings with screw closures must be tightened with 50 Nm. This corresponds to a force of 20 kg using a lever arm length of 25 cm.

Secure the wedges with a jarring blow using a 500 g hammer.

Anchoring

Refer to the Section "Static design" for the anchoring forces and the anchoring positions.

Enclosing the scaffold, or mounting additional surfaces that are exposed to the influences of the wind, changes the stability. As a result, the stability must be re-assessed.
If necessary, additional measures must be implemented.

Anchoring must be installed progressively with the erection of the scaffold assembly.

The anchoring forces must be transferred into sufficiently load-bearing anchorage via wall ties and fixing materials e.g. the building.

Inspecting the anchoring

The anchoring and its components must be inspected by a qualified person nominated by the scaffolding contractor.

Load tests must be carried out at the place of use.

Load tests are to be carried out using suitable test equipment.

The test load must be 1.2 times higher than the required anchoring force $F_{\perp}$.

The scope of testing must, however, include a minimum of 5 load tests for all dowels used for concrete anchoring bases (at least 10%) and for other building materials (at least 30%).



Ensure that the relevant national guidelines and regulations are complied with!

Identification marking

When carrying out the work the following signs must be observed:
If certain parts of the scaffold are not ready for use – especially during assembly, modification and dismantling – a "No Entry" warning sign restricting access must be clearly displayed (Fig. S01).
In addition, the area must be adequately closed off in order to prevent access.

After assembly has been completed, all scaffold entry points must clearly display the designated sign. (Fig. S02)
The identification marking do not replace the inspection log! (Fig. S02, rear side)



Fig. S01

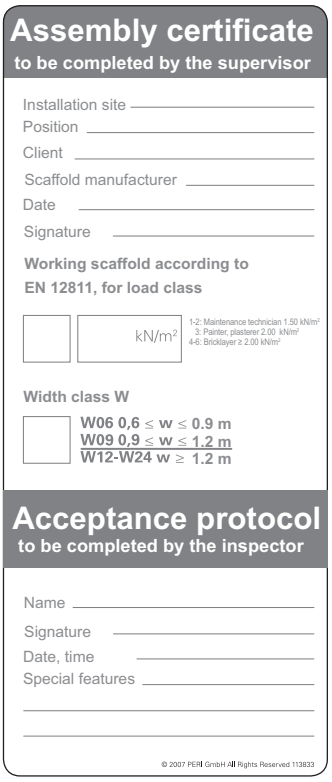


Fig. S02

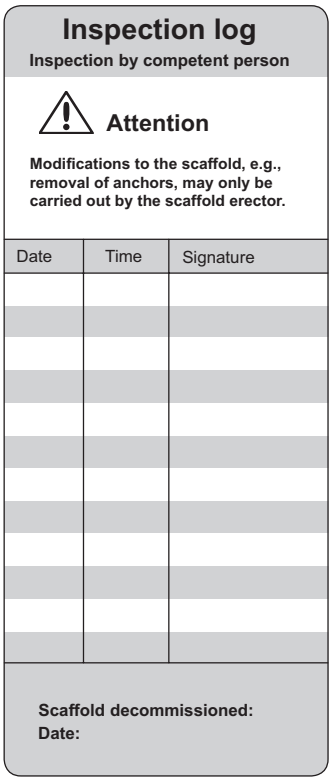


Fig. S03, rear side

Laws and regulations

When assembling, modifying, dismantling and using the scaffolding in Germany, accident prevention regulations and guidelines of the employer's liability insurance associations, as well as national health and safety regulations, must be followed, especially:

- German Product Safety Act (ProdSG)
- Directive 2009/104/EC
- Occupational Health and Safety Act (ArbSchG)
- Operating Safety Regulation (BetrSichV)
- Statutory Accident Insurance (DGUV) Information 201-011
- BGV A1 (Trade Association Regulations)
- TRBS 2121 (Technical Regulations for Operational Safety)
- TRBS 1203 (Technical Regulations for Operational Safety)
- Regulations for Occupational Health and Safety on Construction Sites 30 (RAB 30)

The latest version in each case is applicable.

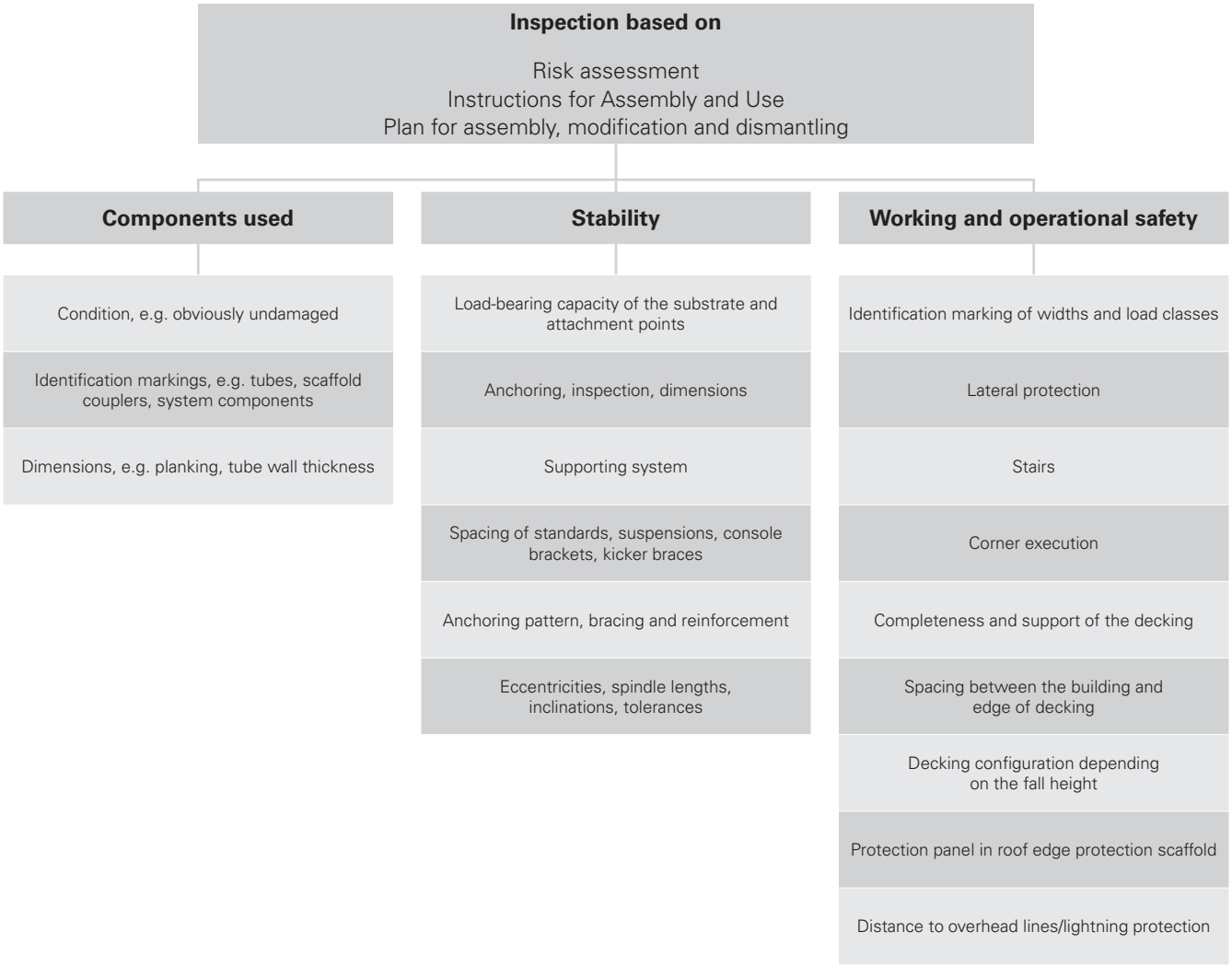
- **Ensure that the relevant national guidelines and regulations in the respective current version are complied with!**

Inspection, handover and use

The erected scaffold must be inspected by the scaffolding contractor in order to determine that assembly has been carried out correctly. If the contractor is convinced that the scaffold has been correctly erected, it can then be handed over to the user.
It is advisable to carry out the handover with the user and, for example, to document this in a written report.

During the handover, the scaffolding contractor must advise the user of any possible risks involved with non-intended use and his obligation to provide adequate prevention against risk and danger!
- **Put up safety and warning signs at the scaffold access point.**
- **Handover of a usage plan.**

The contractor who uses the scaffolds, must ensure that the scaffolding is in good condition and not arbitrarily altered in any way. In this respect, the qualified specialists must be instructed that if changes have obviously been made during use, these must be reported to the respective qualified and competent person.



Source: based on TRBS 2121 Part 1

General

- Store and transport components in such a way that no unintentional change in their position is possible. Detach lifting accessories and gear from the lowered components only if they are in a stable position and no unintentional change is possible.
- Do not drop the components.
- Only ever use approved and inspected means of transportation from PERI incl. lashing, lifting gear and slings.
- Only attach the means of transport to the intended attachment points using suitable lifting gear and slings.

During the relocation procedure

- Ensure that components are picked up and set down so that unintentional falling over, falling apart, sliding, falling down or rolling is avoided.
- No persons are allowed to remain under the suspended load.
- 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.

Vertical transportation

Note

Adverse effect on safety levels due to damaged scaffold components!

⇒ Do not drop scaffold components!

⇒ Transport and store scaffold components in a way that poses no risk of damage to the components.

- For assembly, modification and disassembly work, guardrails and intermediate guardrails must be installed at all times in the material acceptance bay. If double-advanced guardrail posts are used, every bay is a material acceptance bay.
- Vertical transportation must be carried out under the supervision of site personnel in all situations.

If scaffolds higher than 8 m (deck height above erection surface) are being erected, construction hoists or winches should be used for vertical transportation of the scaffolding components.
Observe the respective manufacturer's documentation!

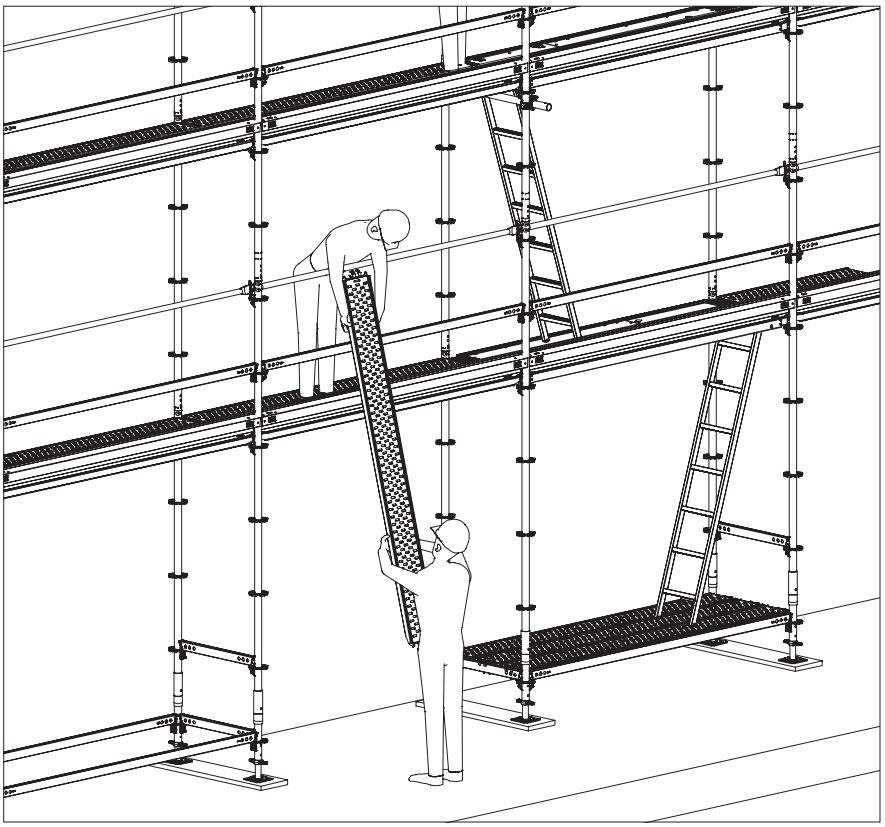


Fig. M.01

Basic scaffolding in the standard configuration

Working situation:
Assembly/dismantling of all scaffold components. (Easy standards, horizontal ledgers, lateral and end protection, decks, ties)

Assembly with guardrail in advance as system-integrated guardrails
From the most recently completed scaffold level, the top guardrail for the next scaffold level is assembled together with the standard.

The end guardrail for the next scaffold level is also installed from the level below.

The scaffold constructors will come across the end guardrail and upper guardrail posts straight away, allowing them to continue with installation from a safe working position. (Fig. M.02)

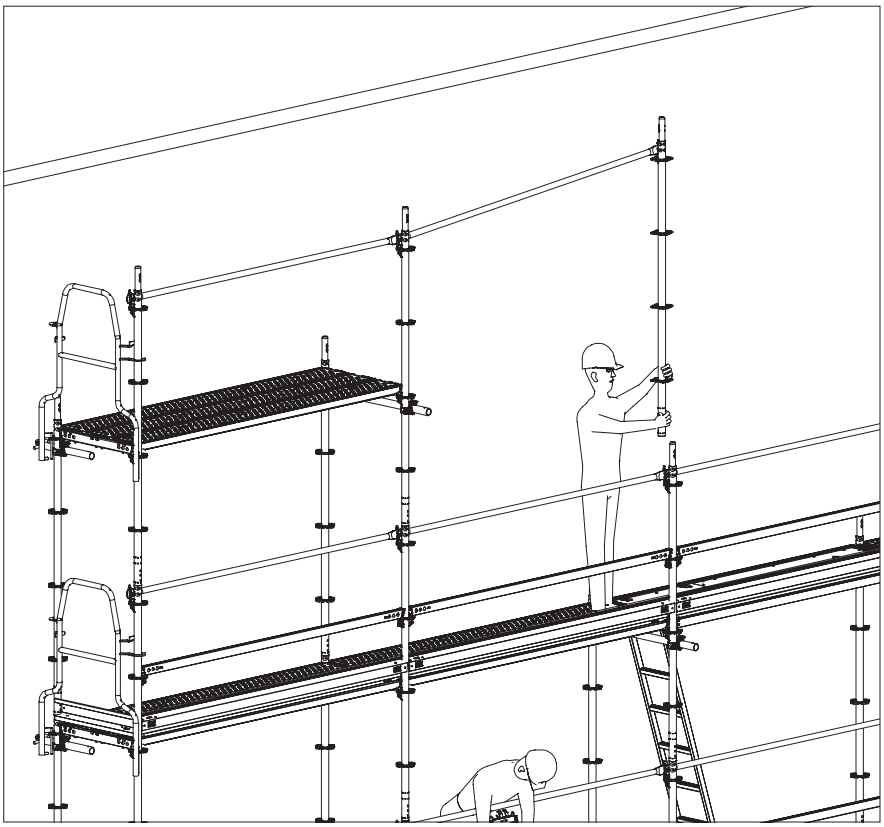


Fig. M.02

Comply with the prescribed assembly sequences!

Verified attachment points

Certain assembly situations could occur that require the use of personal protective equipment (PPE) to prevent falling from a height. For this, the following verified attachment points must be used:

All attachment points require the following:

- The standing height can be a maximum of one level above the last anchoring position.
- At least one anchoring layer must always be present, or the scaffold is verified to be free-standing and the tilt resistance is guaranteed.

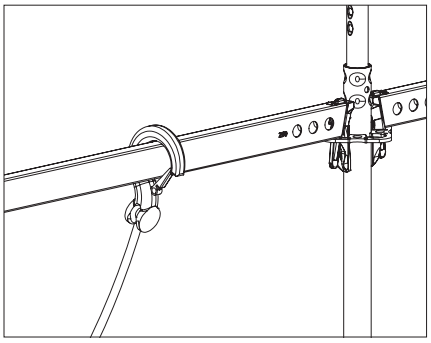


Fig. M.03

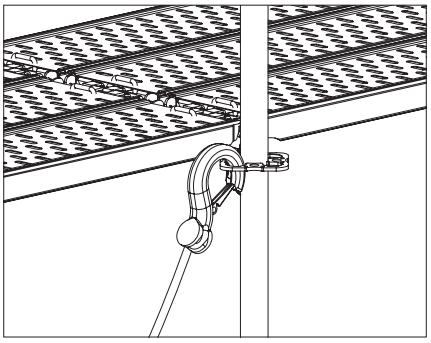


Fig. M.04

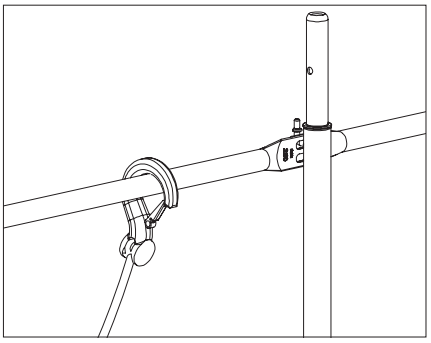


Fig. M.05

Horizontal ledger
Attachment point:
Each Horizontal Ledger UH Plus or UH-2

- which is freely accessible for the lifting gear
- and is installed at a maximum height of 1.0 m above the deck level.
- and which is wedged on two rosettes of 2 standards.
  The standards must be butt-jointed at least 0.5 m below the deck level.

Rosette
Attachment point:
Each rosette that is integrated in the base scaffold. See rules and regulations on the right.

Guardrail post
Attachment point:
Each Guardrail Post EPG,

- which is connected to two Standards UVR, UVR-2 or UVH
- and both the guardrail post and the intermediate guardrail (UH-Plus or UH-2) are installed
- and is mounted a maximum 1.0 m above the deck level.
  The standards must be butt-jointed at least 0.5 m below the deck level.

Attachment points in the system

Each specified attachment point is intended for securing only one person!

General information

- The use of personal protective equipment to prevent falling from a height is regulated in the project-related risk assessment that has been prepared by the contractor (user).
- When using personal protective equipment to prevent falling from a height, all valid standards and safety regulations are to be taken into consideration by the contractor.
- Each scaffold assembly is to be secured against tipping by the user.
- The application concerns assembly, reconstruction and dismantling.

Requirements

- The scaffold assembly underneath the final assembly level is complete. This means, all ledgers and diagonal bracing have been installed and the decking is in place as the topmost assembly level.
- The joints of the topmost standards must lie underneath the last assembly level.

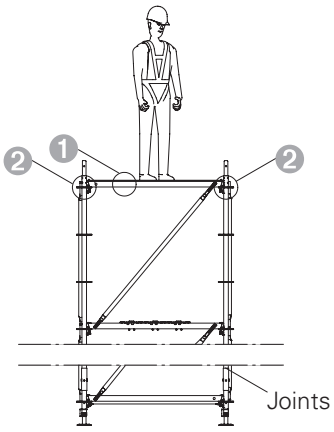


Fig. M.06

Attachment points
Standard ends approx. 2 m below the assembly level:

- each horizontal ledger in the assembly level 1,
- each rosette in the assembly level 2.

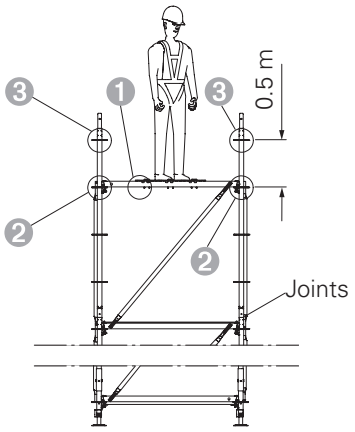


Fig. M.07

Attachment points
Standard ends approx. 1.5 m below the assembly level:

- each horizontal ledger in the assembly level 1,
- each rosette up to max. 0.5 m above the last assembly level 2, 3.

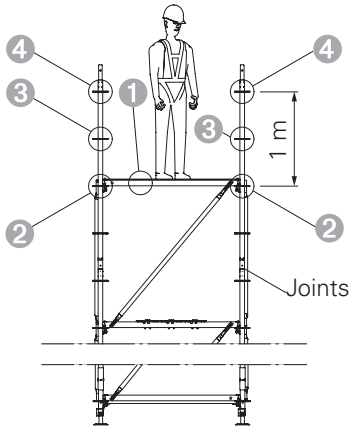


Fig. M.08

Attachment points
Standard ends approx. 1 m below the assembly level:

- each horizontal ledger in the assembly level 1,
- each rosette up to max. 1.0 m above the last assembly level 2 3 4.

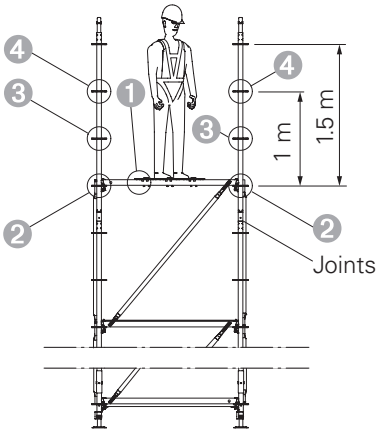


Fig. M.09

Attachment points
Standard ends approx. 0.5 m below the assembly level:

- each horizontal ledger in the assembly level 1,
- each rosette up to max. 1.0 m above the last assembly level 2 3 4.

PERI UP Flex

This variant is described in these Instructions for Assembly and Use. The scaffold side that faces the building is always referred to as the inner side of the scaffolding.

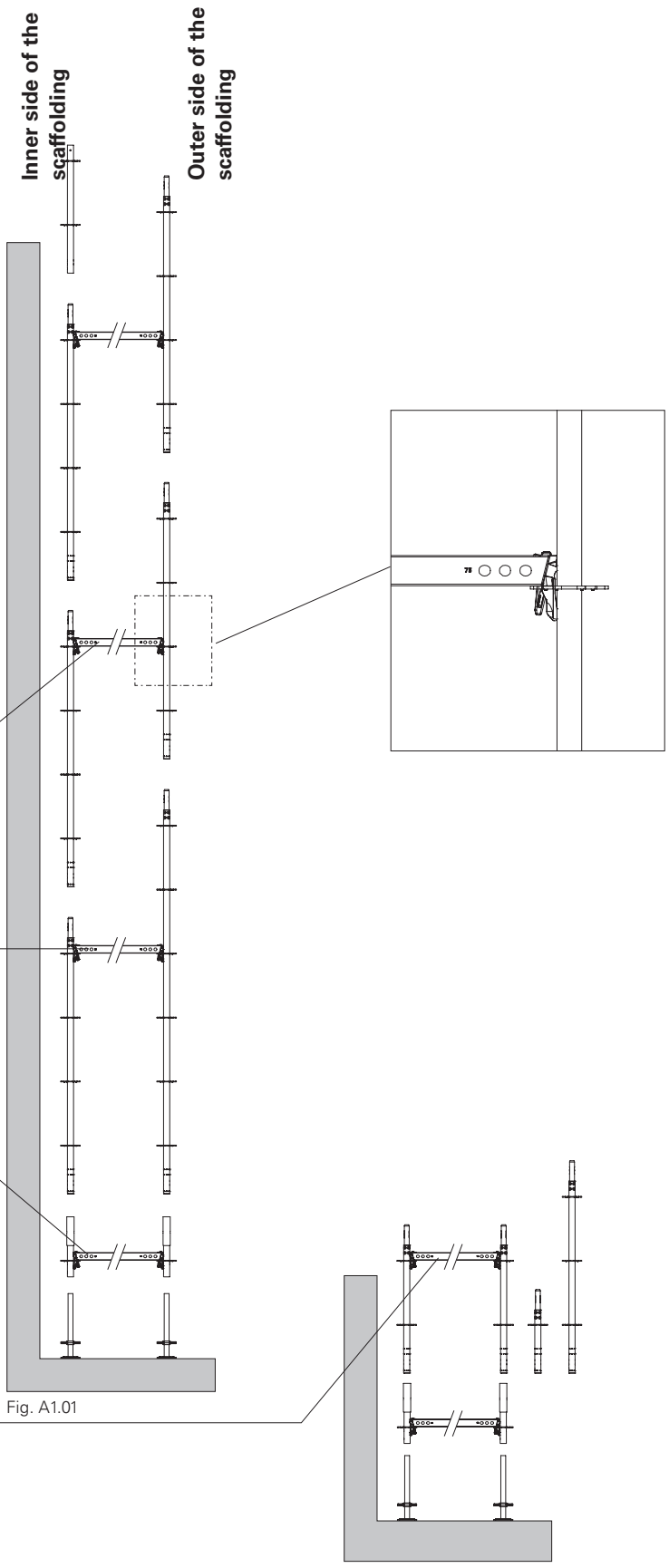


Fig. A1.01

A2 Wedge connections

General

Wedges (**94.1**) are used with various components, e.g. horizontal ledgers (**94**), console brackets (**62**) or supports (**61**), for connecting purposes.

Horizontal Ledger Assembly
Other wedge connections are assembled in the same way.

1. Place Horizontal Ledger UH-2 (**94**) or UHV-2 diagonally on both rosettes and set vertically. (Fig. A2.01)
2. Press the horizontal ledger down onto the rosette up to the stop.
   → Wedges (**94.1**) drop into the rosette and thus already hold the component securely.
   If the wedge does not fall, push the wedge nose (**94.2**) down from the horizontal ledger by hand. (Fig. A2.01a)
3. Secure the wedges with a jarring blow using a 500 g hammer.

→ Horizontal ledger is installed.
(Fig. A2.02 + Fig. A2.03)

Loosening the wedge connection:

1. Hit the wedge from below with a hammer.
2. Lift out the wedge and place it on the horizontal ledger together with the wedge nose.

(Fig. A2.04 + A2.05)

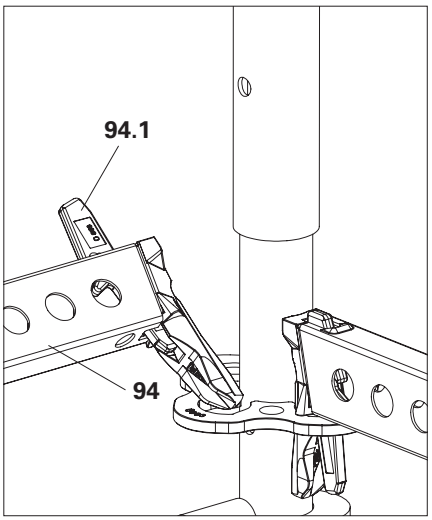


Fig. A2.01

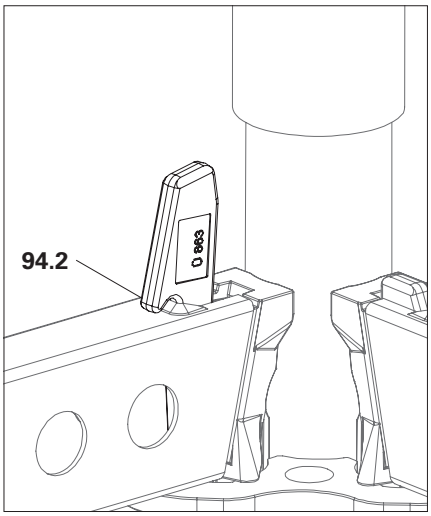


Fig. A2.01a

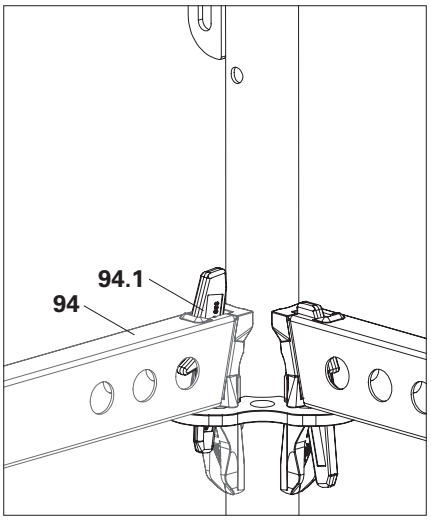


Fig. A2.02

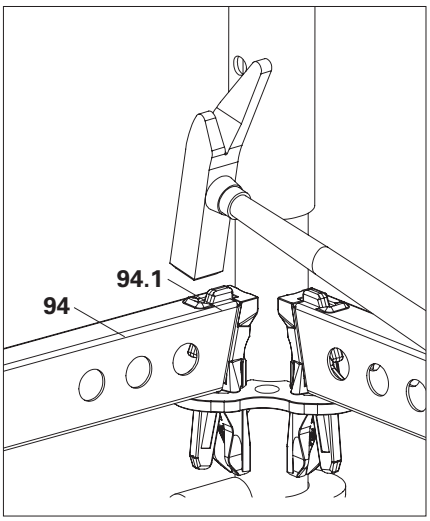
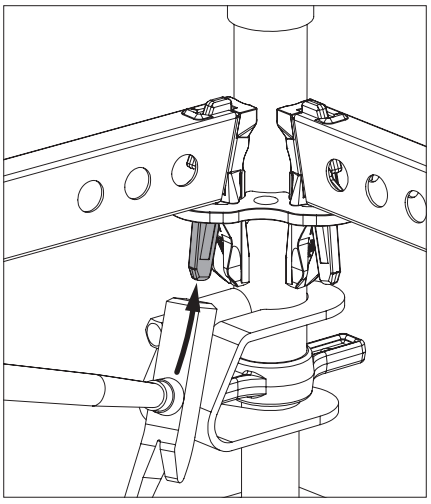


Fig. A2.03


Fig. A2.04

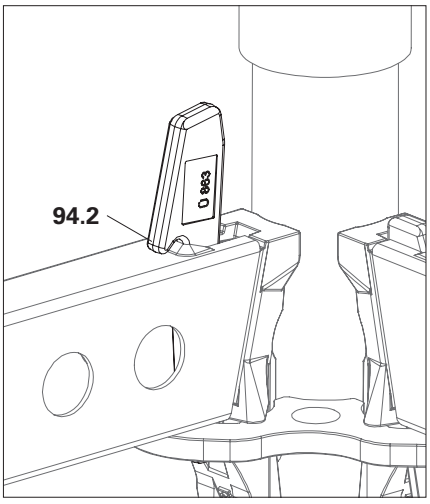


Fig. A2.05

Guardrail Holder EPW

Install the Guardrail Holder EPW (**59**) so that the guardrail hangs on the deck side of the scaffold.

- 2 continuous Guardrail Posts EPG can be hung overlapping on each guardrail holder.

Assembly

1. Insert Guardrail Holders EPW (**59**) into the rosettes of the Standards UVR-2. Guardrail hooks must point inwards towards the deck. Secure the wedges. (Fig. A3.01a)

→ Guardrail Holder EPW is installed.

Guardrail Post EPG

Assembly

1. Turn the connecting pieces (**51.1**) of the guardrail post horizontally and position them on the guardrail hooks. (Fig. A3.01a)
2. Align the slot (**51.2**) with the guardrail hook (**59.1**) and insert. (Fig. A3.01b)
3. Release the guardrail post.
   → The guardrail post drops into a vertical position and is secured.

(Fig. A3.01c)

- For assembly and dismantling, first insert or detach one side, then the other side.

Note

Stability compromised!

⇒ Do not attach any loads (e.g. materials) to the guardrails nor place any loads on the guardrail posts!

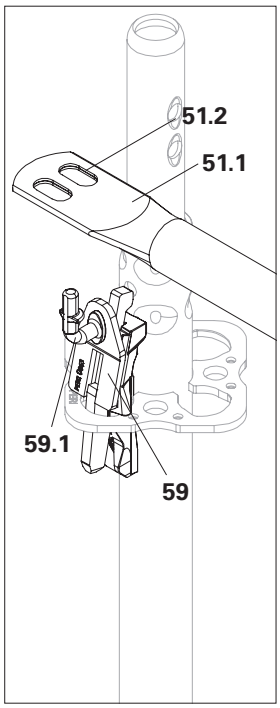


Fig. A3.01a

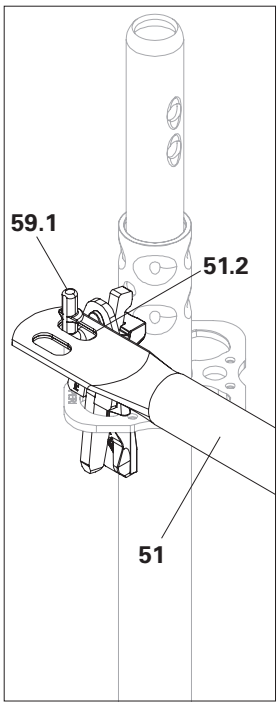


Fig. A3.01b

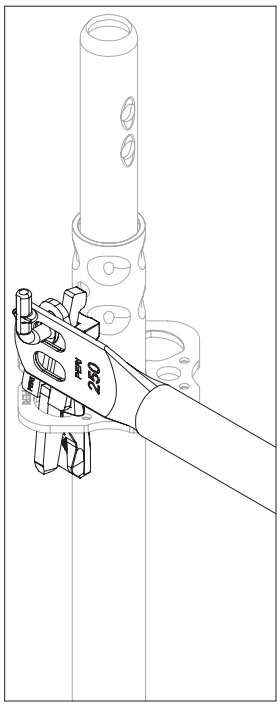


Fig. A3.01c

advanced guardrail

The lateral protection is always assembled in front.
For the assembly procedure, see also Section "Standards and guardrail post" on page 51.

Assembly can be carried out in a "double-advanced" manner in the material acceptance bay with guardrails and intermediate guardrails.
The intermediate guardrail must be exchanged for a horizontal ledger in due course

Assembly

1. Fit the Guardrail Holder EPW in the uppermost rosette of the standard.
2. Turn and attach the Standards in such a way that the guardrail hooks face inwards.
3. Attach the Guardrail Posts EPG (**51**) to the Guardrail Holder EPW (**59**) and place the other side on the deck (Fig. A3.02a)
4 Set the second standard (**18**) with the pre-attached guardrail holder down on the deck and attach the free guardrail post side to the guardrail hook.
5. Attach the standard to the scaffold together with the guardrail posts. (Fig. A3.02b)

→ The lateral protection is installed.

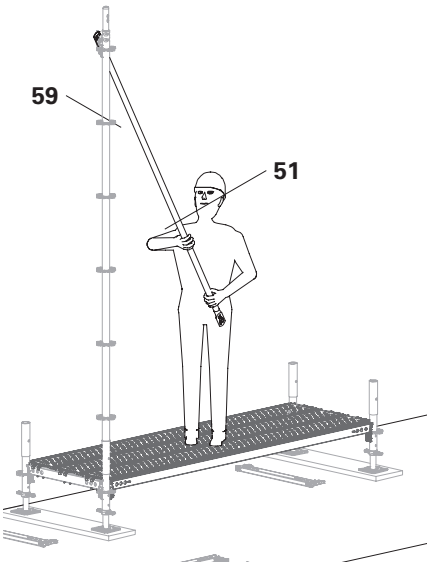


Fig. A3.02a

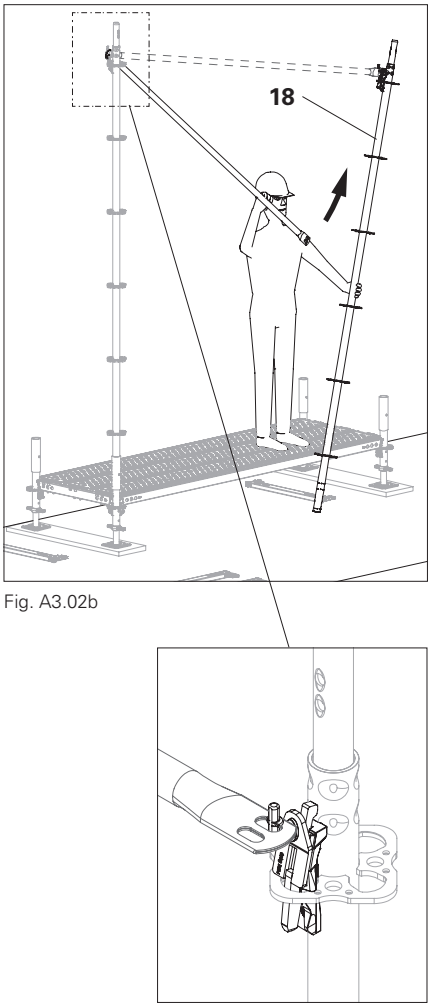


Fig. A3.02b

Toe board

In the event of high winds, the Toe Boards UPY and the Toe Boards UPF require additional reinforcement with suitable means.

Toe Board UPY
In the standard case, the Toe Board UPY (**57**) is used, and this is what is shown in the further course of the documentation. Use of Toe Boards UPF is optional. See Section "Toe Board UPF" on page 27.

Assembly in the bay
1. Turn the support bracket (**57.1**) downwards.
2. Turn the trapezoid box (**57.2**) **outwards**. (Fig. A3.03)

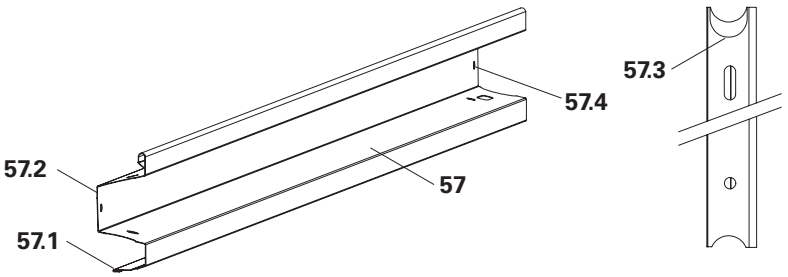


Fig. A3.03 Top view

3. Insert Toe Board UPY (**57**) from the inner side of the scaffolding to the right. The larger tube section (**57.3**) is on the right.
4. Raise the toe board on the left-hand side until it rests on the standard (**18**).
5. Lower the toe board onto the deck.
→ The toe board is installed.
(Fig. A3.04)

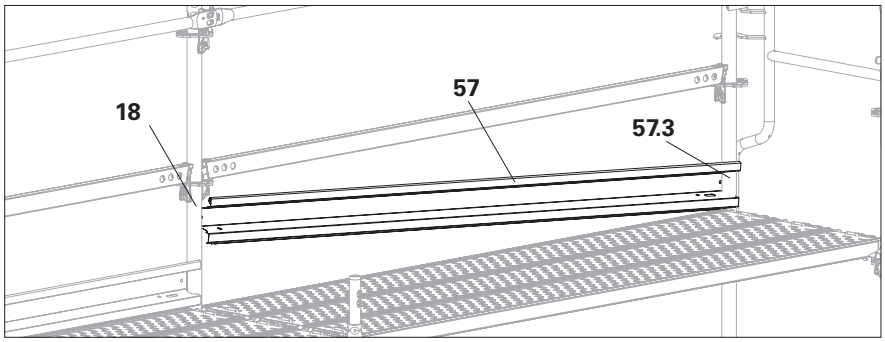


Fig. A3.04

Assembly around a corner:

1. Turn the support bracket (**57.1**) downwards.
2. Turn the trapezoid box (**57.2**) **inwards**.

■ On a right-hand corner:

3. Insert Toe Board UPY (**57**) from the outside-left first of all. The larger tube cut-out (**57.3**) is on the left. (Fig. A3.05)
4. Raise the Toe Board UPY on the right-hand side and position it on the second tube.
5. Lower the toe board onto the deck.

→ The toe board is installed. (Fig. A3.06)

■ On a left-hand corner:

3. Insert Toe Board UPY (**57**) from the outside-left first of all. The larger tube cut-out (**57.3**) is on the left. (Fig. A3.07)
4. Raise the Toe Board UPY (**57a**) which has already been mounted in the bay.
5. Place the Toe Board UPY (**57**) on the second tube and simultaneously insert it into the trapezoid box (**57.2**) of the toe board in the straight scaffolding bay.
6. Lower the toe boards simultaneously.

→ The toe board is installed.

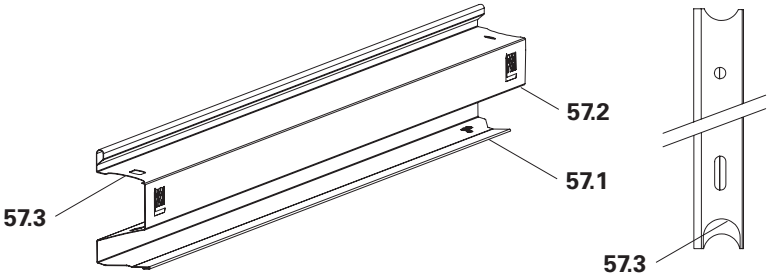


Fig. A3.05 Top view

Right corner

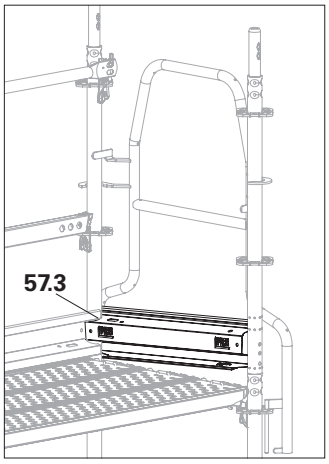


Fig. A3.06

Left corner

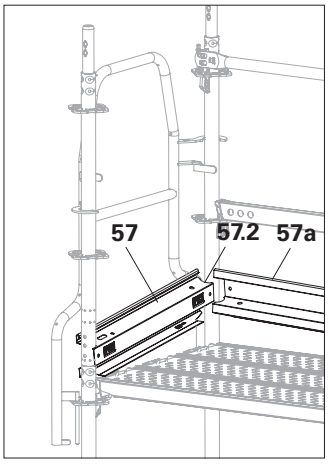


Fig. A3.07

Toe Board UPF

Toe Boards UPF are correctly installed when each PERI logo is legible.

Assembly

1. Insert the Toe Board UPF (**56**) on one side with the end piece on the standard (**18**).
2. Lower onto the deck.
3. Raise the other side so that the second end piece can be fitted onto the other standard.

(Fig. A3.08)

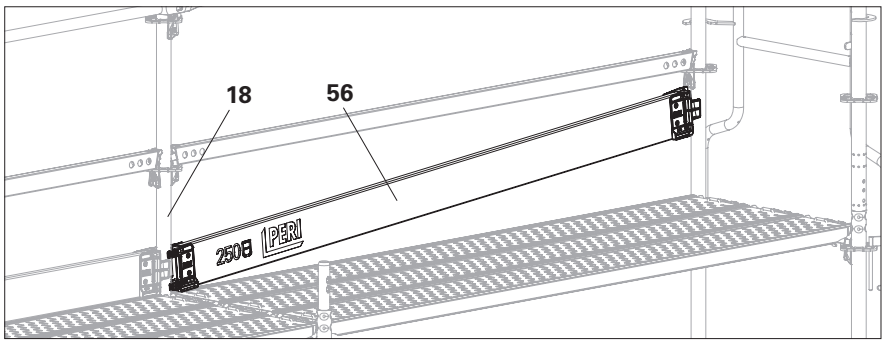


Fig. A3.08

4. Lower the toe board onto the deck.

→ The toe board is now installed.

(Fig. A3.09)

- Installation is done in the same way on all standards.
- For corners, turn the toe boards so that the retaining lugs (**56.2**) of the end pieces engage with each other. (Fig. A3.09a)

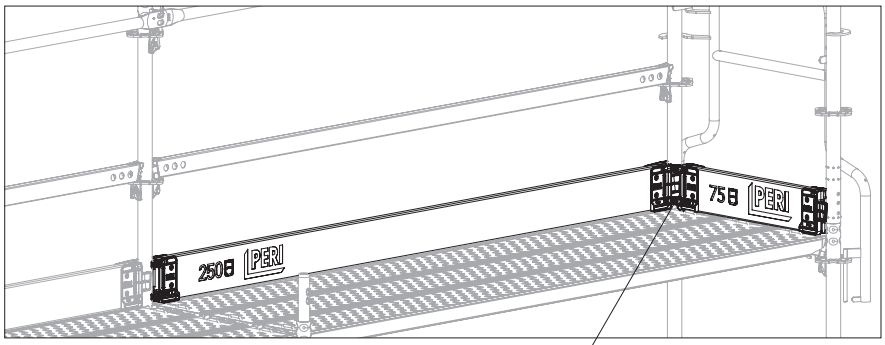


Fig. A3.09

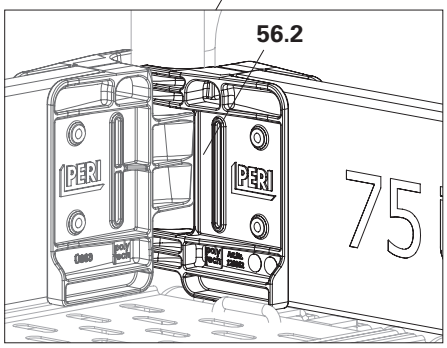


Fig. A3.09a

End Guardrail in Advance UPA-2

The end guardrail in advance is continuously mounted from a safe and secure position as system-integrated end protection for the next scaffolding bay. It can remain in place or be replaced by a horizontal ledger. See the next page.

Assembly

1. Guide the end guardrail in advance (**52**) outwards around the standard. The pegs (**52.1**) should then be pointing towards the inner side of the scaffolding. (Fig. A3.10a)
2. Swing the end guardrail in advance to the left so that the fork (**52.2**) engages around the outer standard (**18**). (Fig. A3.10b)

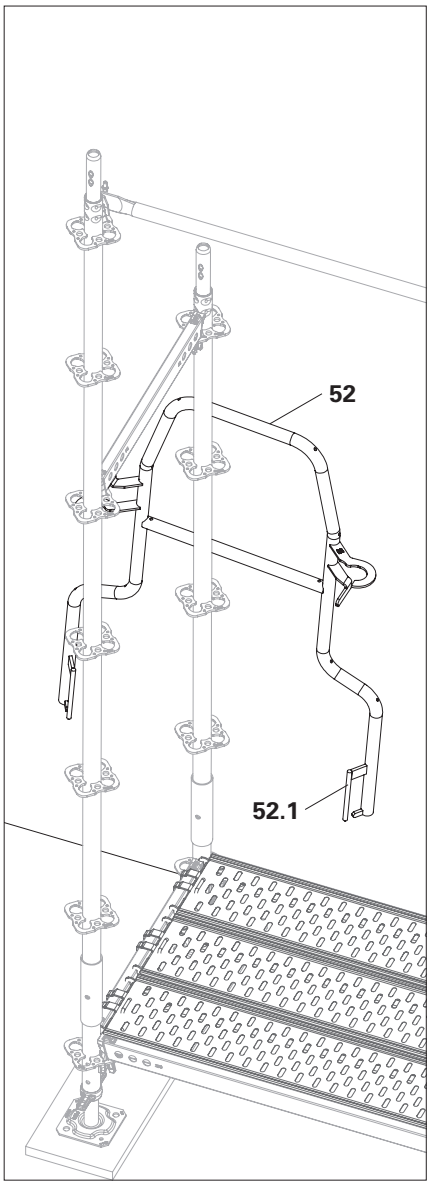


Fig. A3.10a

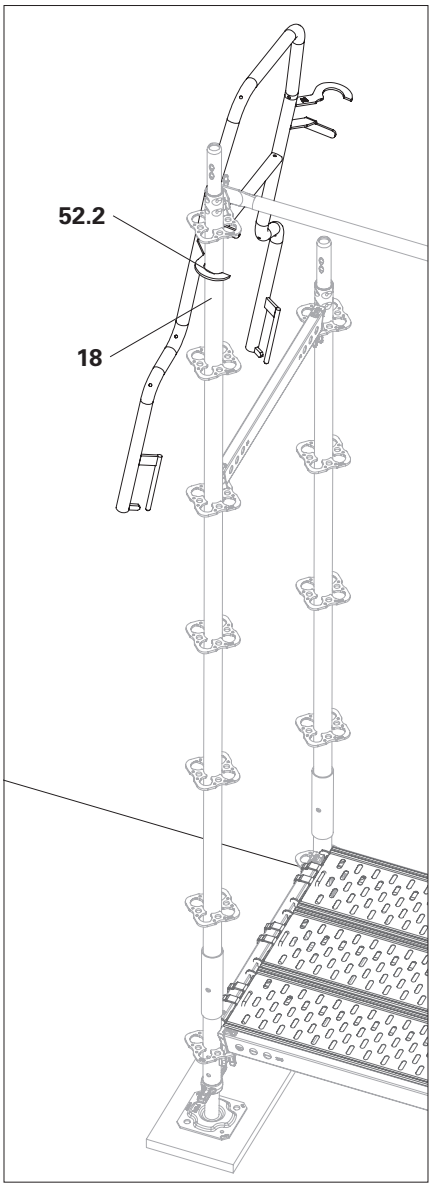


Fig. A3.10b

3. Raise the end guardrail in advance and insert the pegs (**52.1**) into the brace adapters (**18.5**) of the rosettes from above. Lower the end guardrail in advance as far as it will go. (Fig. A3.10c)

→ End Guardrail in Advance UPA-2 is installed.

(Fig. A3.10c)

The End Guardrail UPA-2 can also be mounted on the inner side of the frame column. (Not in connection with attached console brackets with decks)

Does the fork (**52.2**) enclose the standard (**18**)?

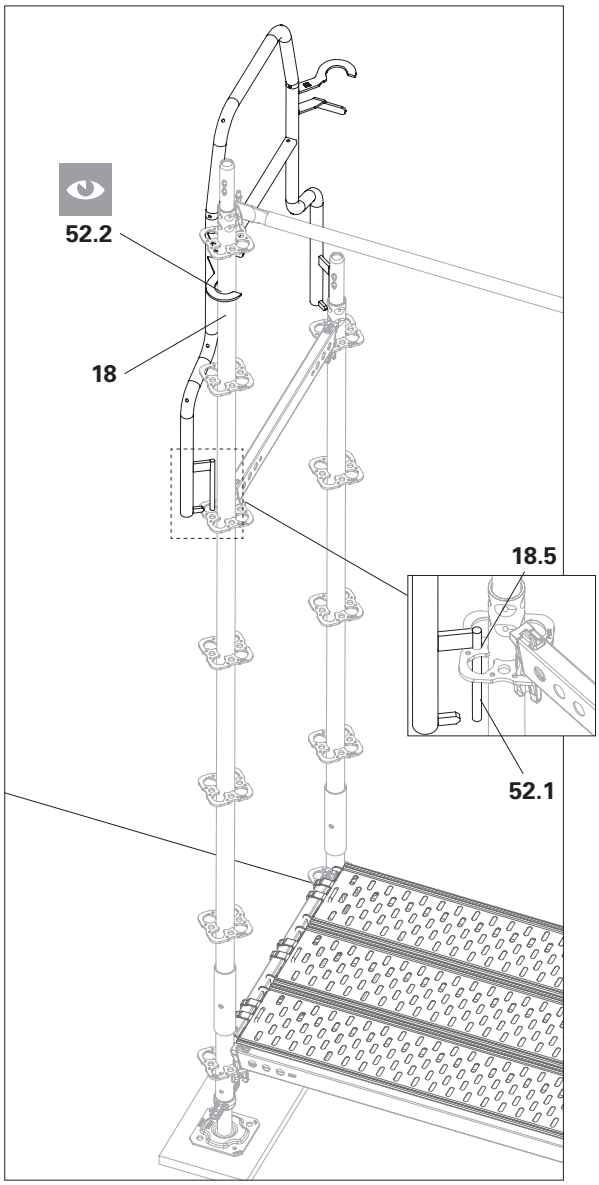


Fig. A3.10c

Replacing end guardrails

The End Guardrail in Advance UPA-2 can be replaced with 2 Horizontal Ledgers UH-2 (**27**) at every level. Assembly is carried out from a safe position. Observe national regulations.

Assembly

1. Installation of the End Guardrail in Advance UPA-2 (**52**) for the next level takes place from a safe position, see previous section.
- Once the next scaffold level is complete:
2. Fit a Horizontal Ledger UH-2 (**29**) in the edge bay in place of the Guardrail Post EPG (**51**) and the Guardrail Holder EPW (**59**).
   → The rosette's ledger-to-ledger coupler is free for horizontal ledgers (**29**).
3. Fit two Horizontal Ledgers UH-2 (**27**) in addition to End Guardrail UPA-2. (Fig. A3.11a+ A3.11b)

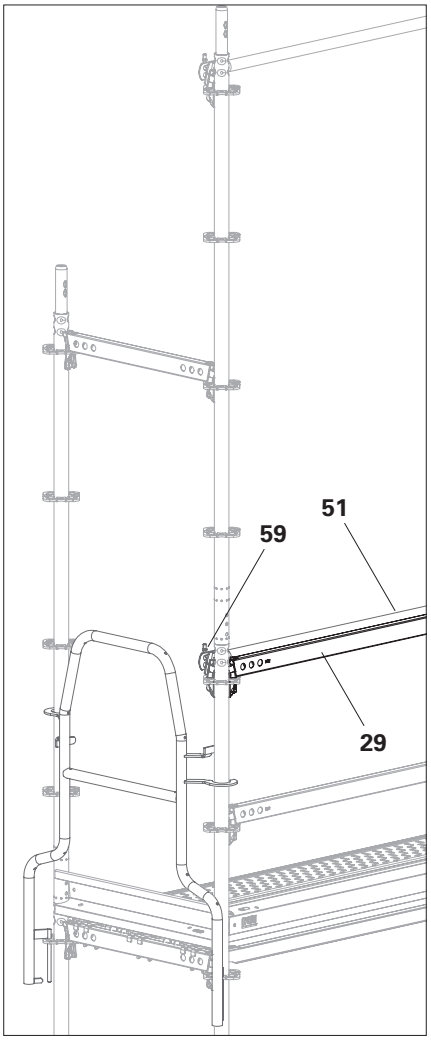


Fig. A3.11a

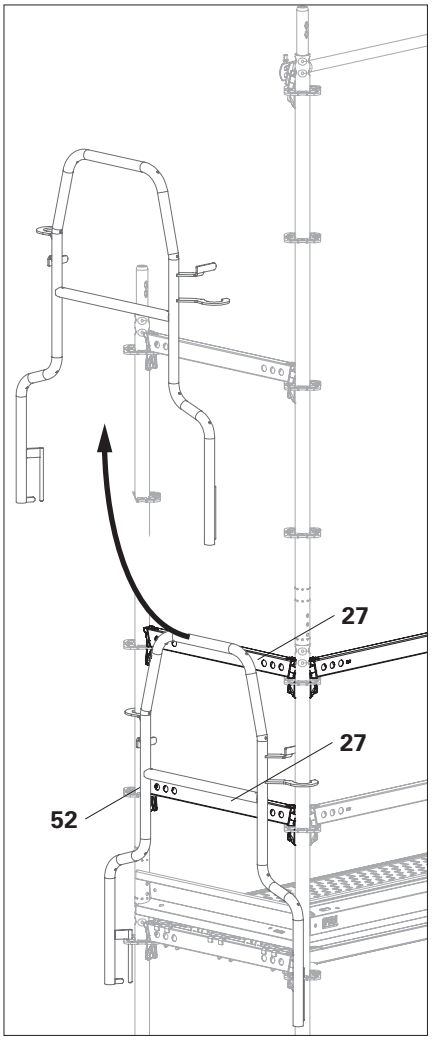


Fig. A3.11b

→ The End Guardrail in Advance UPA-2 (**52**) can be dismantled again and used for the next level. (Fig. A3.11b + A3.11c)

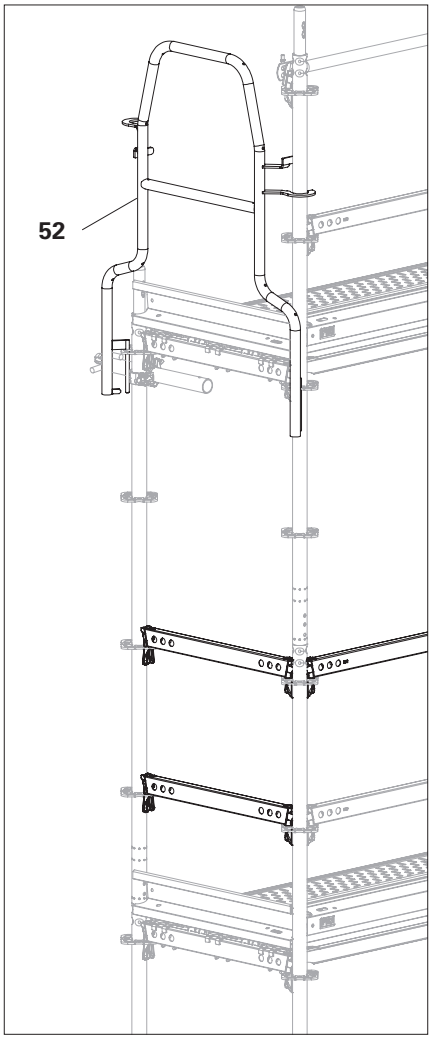


Fig. A3.11c

Decks

Note

Stability compromised without system decking.

⇒ System decks are bracing components and must, therefore, be installed across the full scaffold width and in every scaffold bay!

Various system decks are available for PERI UP Flex:

- For width class W06 ≥ 60 cm and W09 ≥ 90 cm, Steel Deck UDG-2 25 (**30**) is used.
- Alternatively, Steel Deck EDS 33 (**32**) can be used for W09.

All decks have integrated lift locks.

→ Installation of the Steel Deck UDG-2 is shown below.

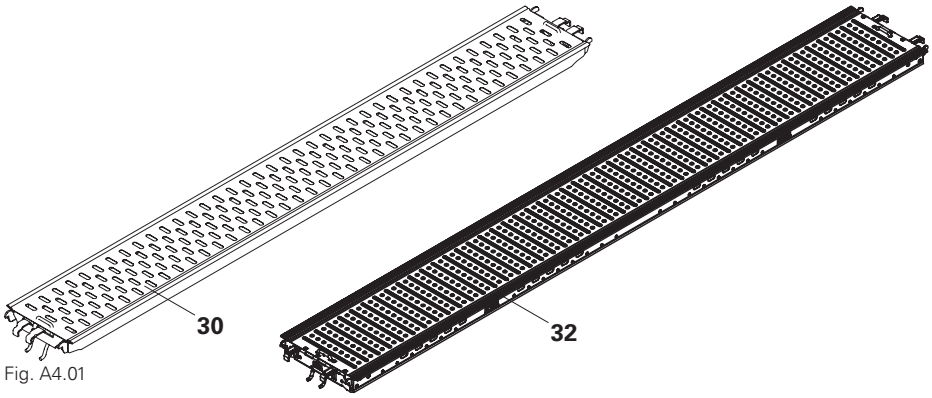


Fig. A4.01

Assembly

1. Pick up the deck (**30**) in the middle, edge it to the side and lift it over both Horizontal Ledgers UH-2 (**27**).
2. Place the deck on the horizontal ledgers one after the other.
3. Lift locks (**30.1**) fall under the horizontal ledger and secure the deck.

→ The deck is now installed.
(Fig. A4.02)

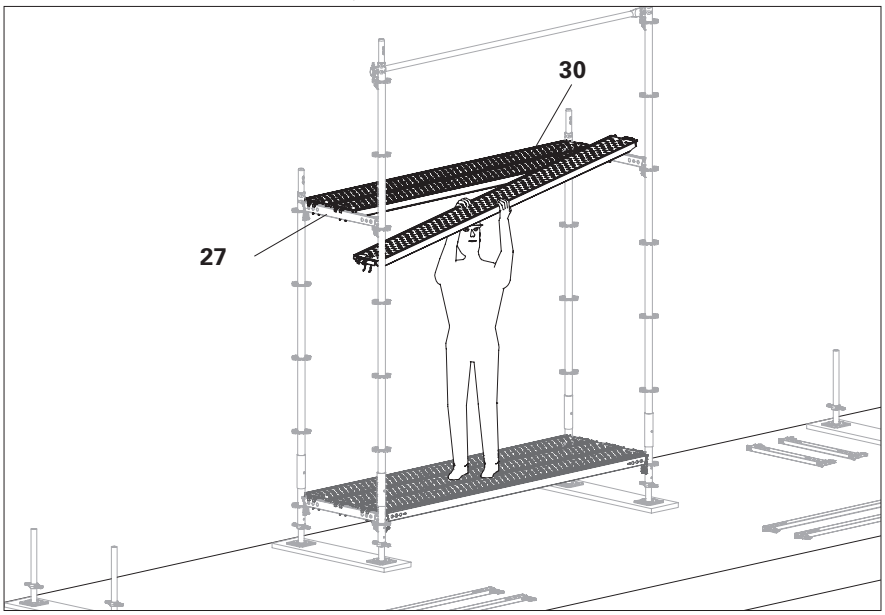


Fig. A4.02

The access decks, entry platforms and Steel Decks EDS are assembled in the same way.

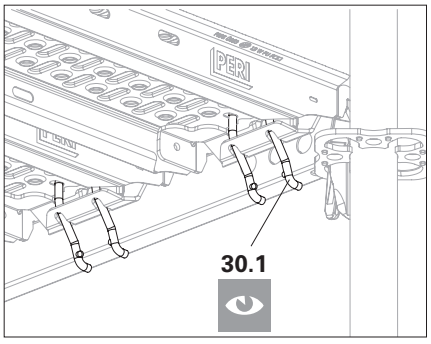


Fig. A4.03

Have all lift locks (**30.1**) on the deck dropped beneath the horizontal ledger? If not, lift the deck slightly and let it drop into position or operate the lift lock manually. (Fig. A4.03)

Dismantling the decking

1. On one side of the decking, pull up the lift lock to release it and lift the deck.
2. Pull out the lift lock as far as it will go.
3. Set the deck with the lift lock (**30.1**) down on Horizontal Ledger UH-2 (**27**). (Fig. A4.04)
4. Lift the deck in the centre, tip it laterally on its edge, and unscrew it in a downwards direction. (not shown)

→ The deck has now been removed

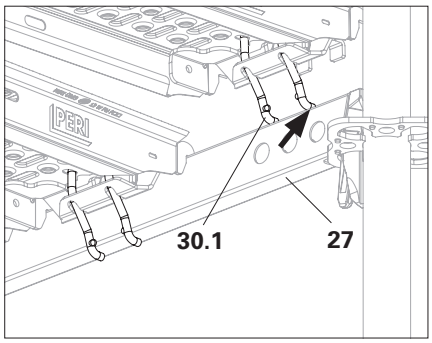


Fig. A4.04

Internal access

Internal access is not possible for width class W09. See Section "External access with staircase" on page 78.

Warning

Open access hatches pose a risk of falling. A fall can result in serious injury

⇒ When not in use, the access hatches must remain closed!

⇒ Arrange the access openings alternately!

Caution

Body parts can become trapped by self-closing access hatches resulting in injuries.

⇒ Guide the access hatch by hand when closing, do not let it fall shut!

⇒ Take into consideration any other persons waiting to use the hatch!

Note

Ensure that the hatch does not exceed an angle of 95° when opened.
This can lead to injuries.

Internal access by way of access decks or entry platforms is possible up to Load Class 3 (LC3).

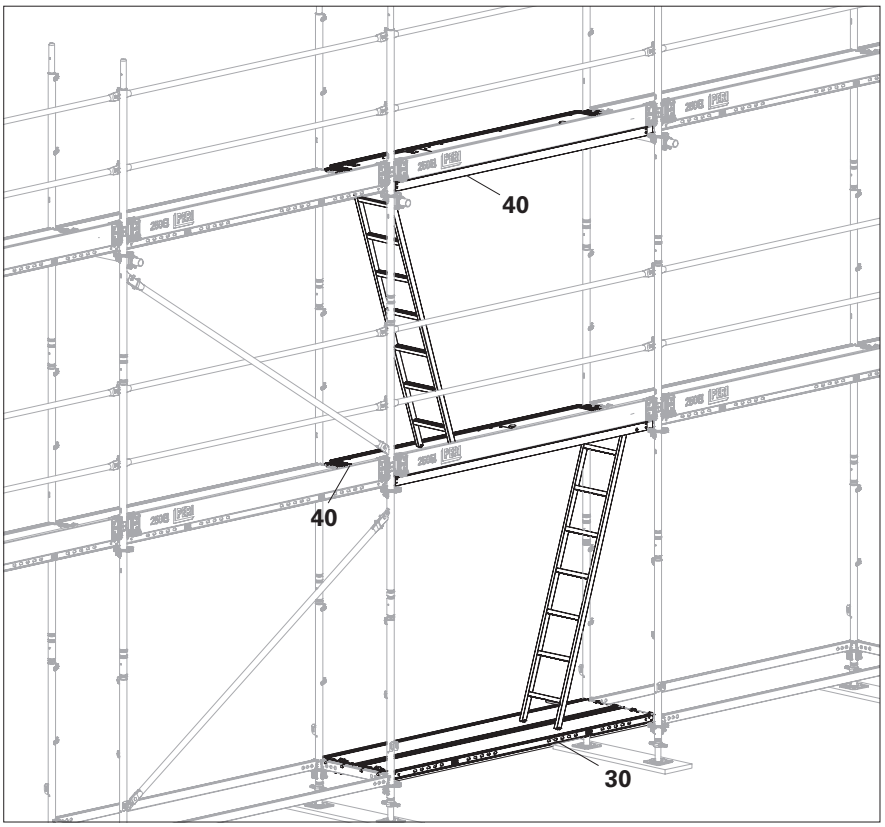


Fig. A4.05

Access deck
For bay lengths of 2.50 m and 3.00 m, install the Access Decks UAW, UAA, or UAC (**40**) (with attached access ladder) in the basic scaffold.

Assembly
1. Mount decks (**30**) on the bottom level as a base for the first ladder.
2. Install an access deck (**40**) in the subsequent scaffold levels. See Section "Decks" on page 32.

→ Access deck is installed.
(Fig. A4.05)

- For system width 100, a front-mounted stair tower must be fitted.
- To lock and unlock the hatch and ladder, hold the spring clip down and guide the hatch or ladder by hand. (Fig. A4.06a)

Entry platform
For 2.00 m bay lengths, install the Entry Platform UAW, UAA or UAC and Ladder UAF.

Assembly
1. Carry out the assembly process as you would for access decks.
2. Open the access hatch and secure temporarily.
3. Attach the ladder to the circular tube.
4. Close the access hatch.

→ The entry platform is installed.

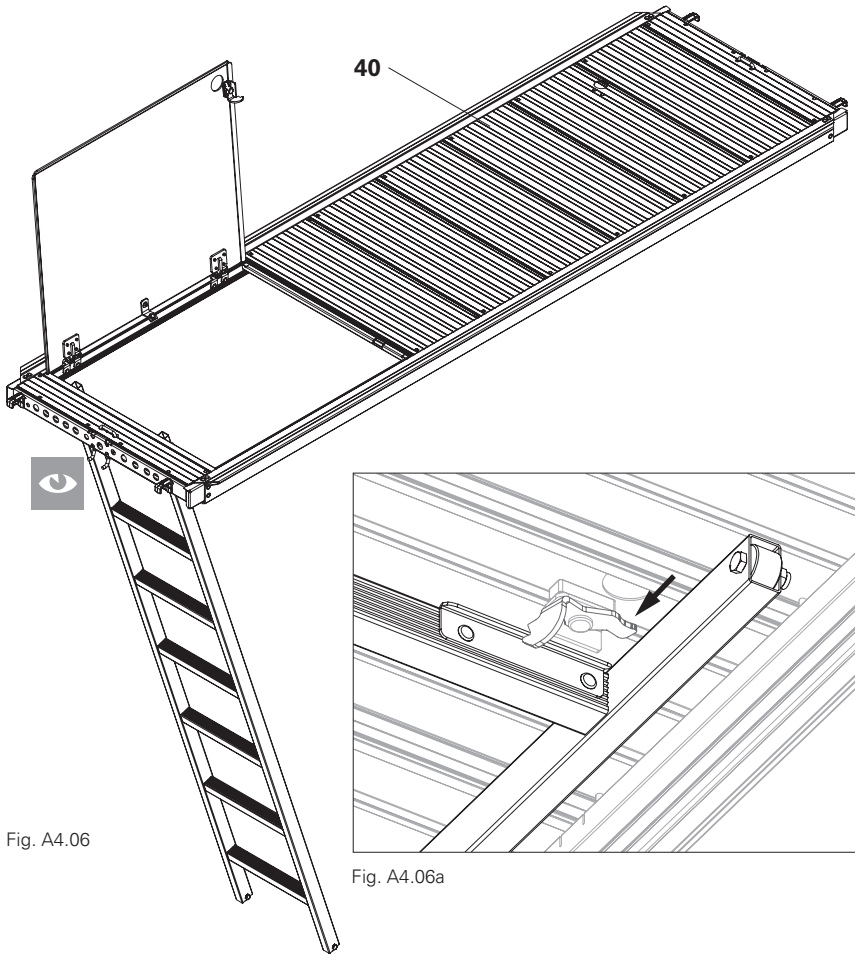


Fig. A4.06

Fig. A4.06a

- Have both lift locks dropped beneath the crossbar? If not, lift the deck slightly and let it drop into position or operate the lift lock manually. (Fig. A4.06 + A4.07)



Fig. A4.07

General

Diagonal bracing is not required in the standard configurations shown in these Instructions for Assembly and Use. Additional or deviating superstructures may require diagonal bracing.
→ Provide static proof.

Node Braces UBK / UBK-2

- Node braces are installed directly on the rosette node.

Assembly

1. Push the brace head (**38.1**) with raised bolt (**38.3**) onto the upper rosette (**18.1**). (Fig. A5.01a)
2. Engage bolt (**38.3**) completely in the brace adapter (**18.3**).
→ Node brace is positioned at the top. (Fig. A5.01b)
3. Push the brace head (**38.2**) with raised bolt (**38.4**) onto the lower rosette. (Fig. A5.01c)
4. Engage the bolt completely in the brace adapter (**18.3**) of the lower rosette.
→ Node Brace UBK is installed. (Fig. A5.01d)

All bolts (**38.3/38.4**) must be engaged and rest on the BRACE head (**38.1/38.2**) after the installation of the Node Brace UBK.
(Fig. A5.01b / A5.01d)

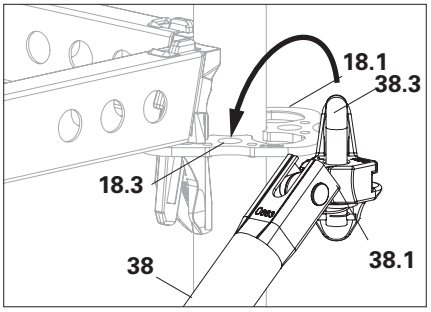


Fig. A5.01a

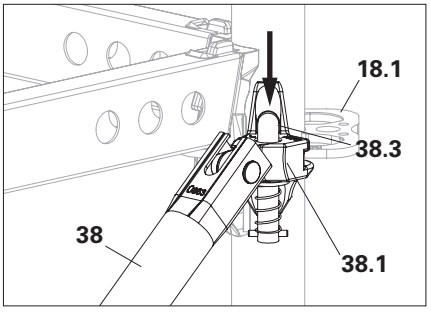


Fig. A5.01b

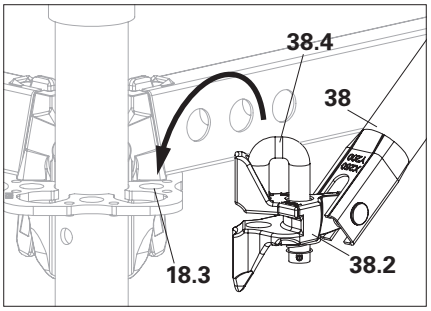


Fig. A5.01c

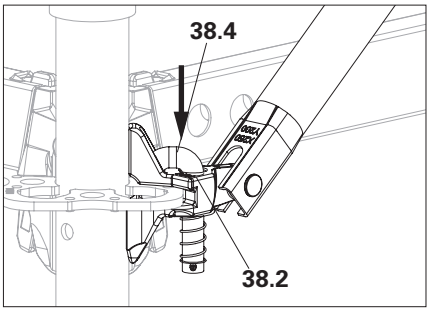


Fig. A5.01d

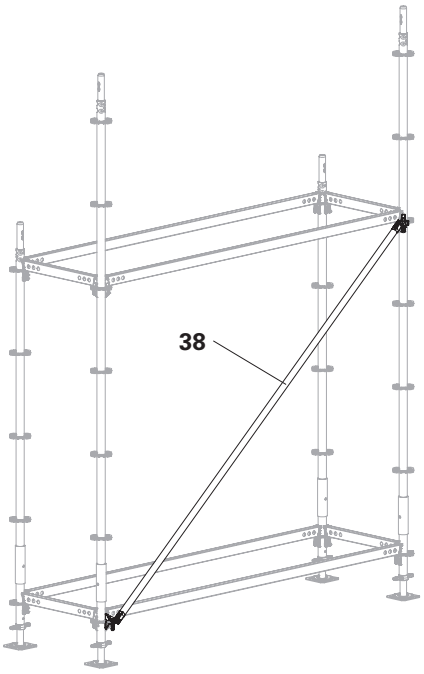


Fig. A5.01

Ledger Brace UBL / UBL-2

Ledger braces are fitted onto horizontal ledgers.

Components

14a Horizontal Ledger UH-2 (bottom)
14b Horizontal Ledger UH-2 (top)
39 Ledger Brace UBL-2

Assembly of UBL-2

1. Bring the Ledger Brace UBL-2 (**39**) parallel to the basic scaffold and turn it so that the mounting finger (**39.1**) points upwards. (Fig. A5.02a)
2. Screw the mounting finger into the hole of the lower horizontal ledger (**14a**). (Fig. A5.02b)
3. Straighten the tilt finger (**39.2**). (Fig. A5.02c)
4. Insert the tilt finger into the hole of the upper horizontal ledger (**14b**). (Fig. A5.02d)
5. Set the tilt finger crosswise.

→ Ledger Brace UBL-2 is mounted. (Fig. A5.02e)

All tilt fingers (**39.2**) of the superstructure must be transverse after installation of the Ledger Braces UBL and rest on both sides of the hole (Fig. A5.02e)

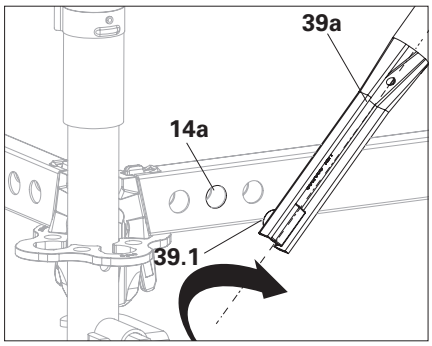


Fig. A5.02a

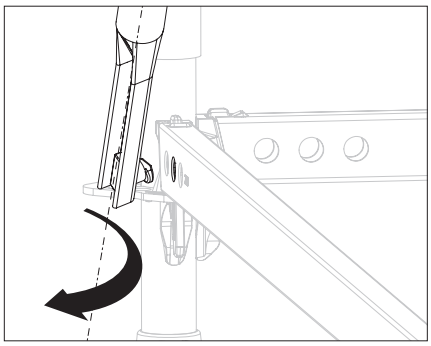


Fig. A5.02b

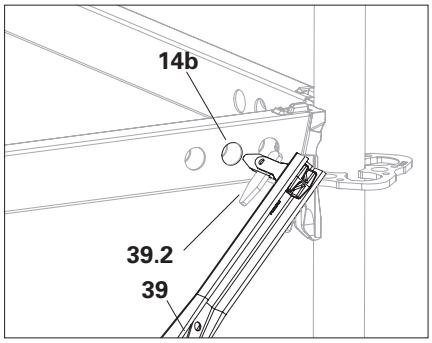


Fig. A5.02c

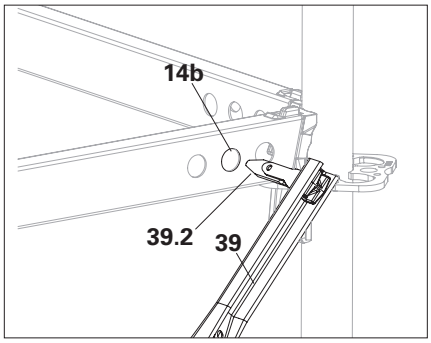


Fig. A5.02d

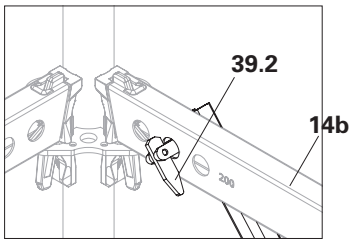


Fig. A5.02e

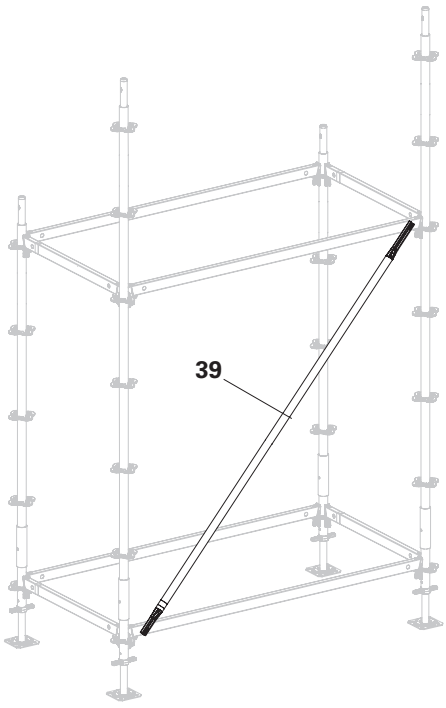


Fig. A5.02

General

Console Brackets ECM and UCB (**62**) (with pins) and Supports UC* (**61**) (without pins) are available for PERI UP Flex.

If a standard is required for lateral protection (e.g. for the installation of end guardrails), only use Console Brackets UCB (**62**) or ECM.

Supports:
Support UC 25* (**61**)

Console brackets:
Console Bracket UCB 25 (**62**)
Console Bracket ECM 50
Console Bracket ECM 75

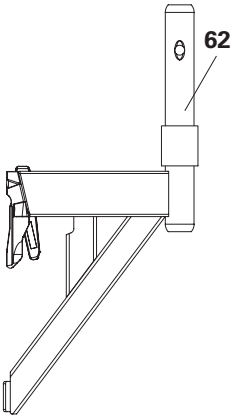


Fig. A6.01

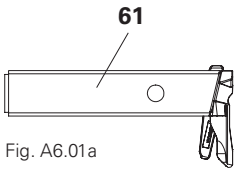


Fig. A6.01a

- External console brackets are not permitted in the standard configuration and require a separate proof of load-bearing capacity.
- For additional anchoring for internal console brackets, see the Section Tie pattern
- Observe the load classes of the decks, see Section "D1 Load-bearing capacities" on page 116.
- The surface loads or standard loads specified in each case shall apply.

* Variant is not covered by the PERI UP Flex 100 standard configuration.
Only permissible up to load class 3 or after separate structural analysis.

Use as internal console bracket			
Supports	**Bay length**	**Load class**	**F [kN]**
UC 25*	≤ 3.00 m	LC 3	-
Console brackets			
UCB 25	≤ 2.50 m	LC 6	5.2
	3.00 m	LC 5	5.2
ECM 50*	≤ 2.50 m	LC 5	2.8
	3.00 m	LC 4	2.8
ECM 75*	≤ 3.00 m	LC 4	2.2

Use as external console brackets			
Console brackets			
ECM 50*	≤ 2.50 m	LC 5	2.8
	3.00 m	LC 4	2.8
ECM 50 with protection panel*	≤ 3.00 m	LC 4	-
ECM 75*	≤ 3.00 m	LC 4	2.2
ECM 75 with protection panel*	≤ 3.00 m	LC 3	-

Console brackets on the scaffold

- Console brackets are always installed from below!
- See Section "A2 Wedge connections" on page 22.

Fitting the console bracket

1. Attach Console Bracket UCB 25 (**62**) to rosette. The formwork half (**62.2**) must rest against the vertical tube. (Fig. A6.02)
2. Secure the wedge.

→ The console bracket is now mounted.

(A6.02a)

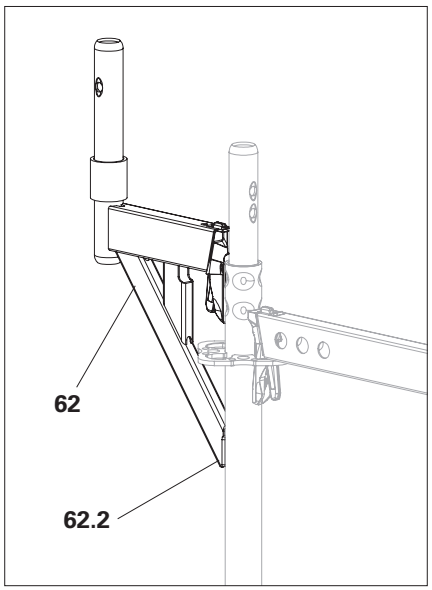


Fig. A6.02

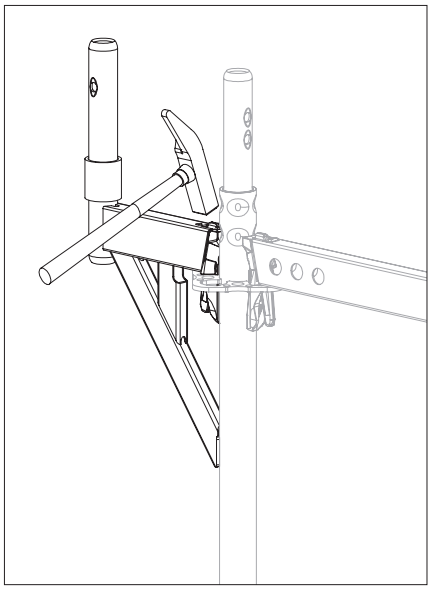


Fig. A6.02a

General

Polycover components are optional, and not required in the standard configuration

All polycover- components
- make use of signal colours to indicate hazard areas,
- lower the risk of injury in the event of impact,
- reduce fouling.

Note

If handled incorrectly, polycover components may break.
⇒ Do not use a hammer when working with polycover components.
⇒ In temperatures below 0 °C, warm up polycover components prior to assembly.

Poly Cover Tube UPC-T

For closing tube ends with d = 48.3 mm. (Fig. A7.01)

1. Push the Poly Cover Tube UPC-T (**120**) onto the end of a tube with d = 48.3 mm. (Fig. A7.02)

→ The poly cover is mounted.



Fig. A7.01

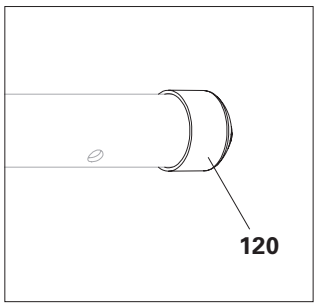


Fig. A7.02

Poly Cover Rosette UPC-R

For protection around ledger-free rosettes. (Fig. A7.03)

1. Position the Poly Cover Rosette UPC-R (**121**) with one half on the rosette.
2. Close the second half.
   → The clip fastener engages.
   → The poly cover is mounted.

(Fig. A7.04)

- The poly cover rosette can be additionally secured with cable ties.

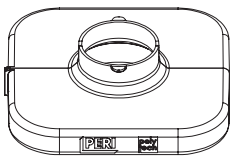


Fig. A7.03

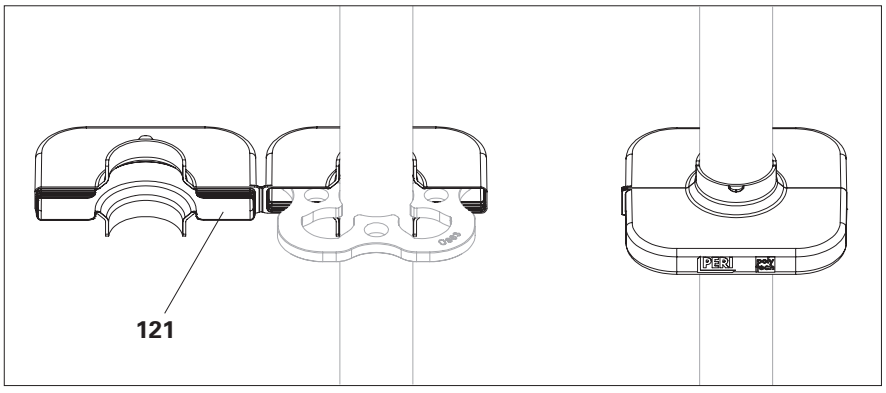


Fig. A7.04

Poly Cover Coupling UPC-C

For protection around a rosette with mounted ledgers or around bolted tube/coupler connections.
(Fig. A7.05- A7.07a)

Assembly

1. Clip the Poly Cover Couplings UPC-C (**122**) onto the scaffold standard d = 48.3 mm.
2. For ledgers arranged around a 90° corner: fit Poly Cover UPC-C (**122 + 122a**) in an overlapping manner. (Fig. A7.06)
3. If ledgers are arranged longitudinally: fit Poly Cover UPC-C on both sides. (Fig. A7.06a)
4. In case of crossing tubes, mount 2x Poly Covers UPC-C on each tube, overlapping on one or both tubes. (Fig. A7.07 + A7.07a)

→ The poly cover is mounted.

Use cable ties to provide the poly cover couplings with extra reinforcement.

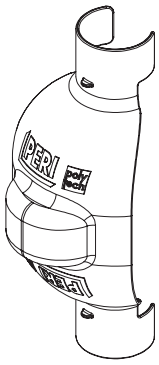


Fig. A7.05

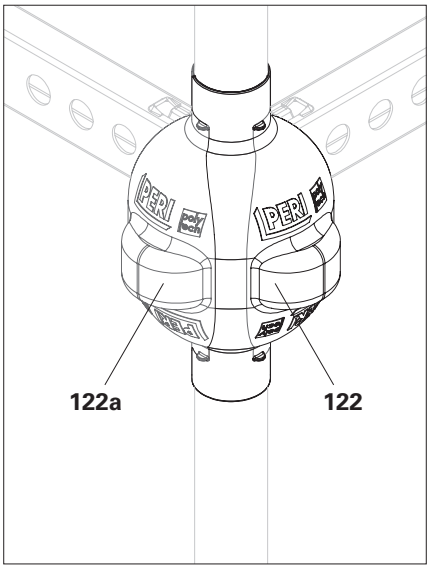


Fig. A7.06

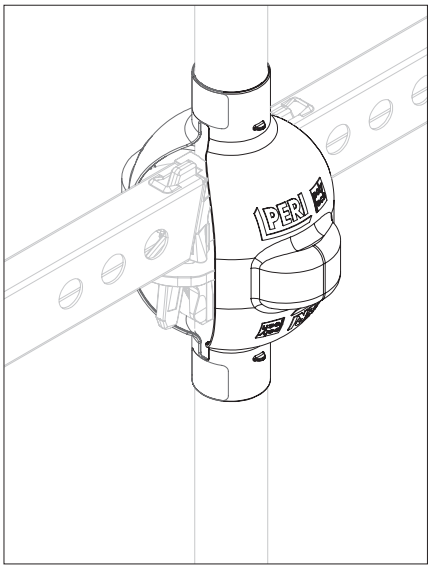


Fig. A7.06a

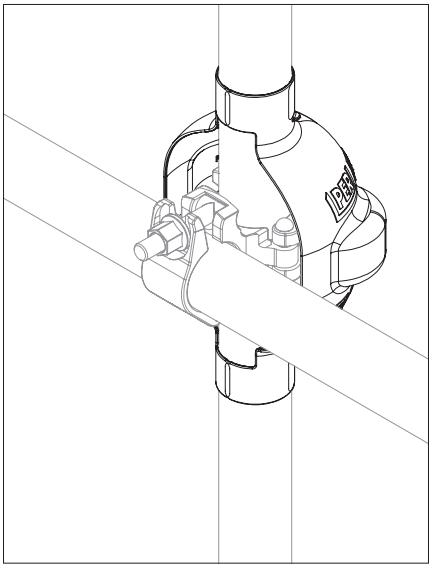


Fig. A7.07

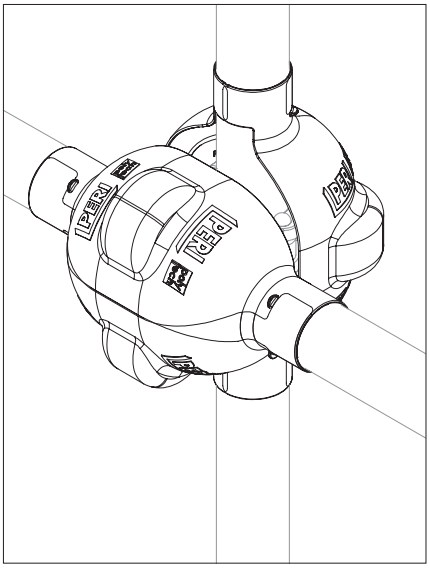


Fig. A7.07a

Spindle Lining UES

Spindle Lining UES serves to protect the substrate.
If additional reflectors (**123.1**) are installed, this improves visibility.
(Fig. A8.08)
The component can transfer compression forces of up to 50 kN.

Assembly

1. Place the spindle lining (**123**) on a flat and load-bearing substrate
2. Position the spindle centrally

→ The spindle lining is installed.
(Fig. A8.08a)

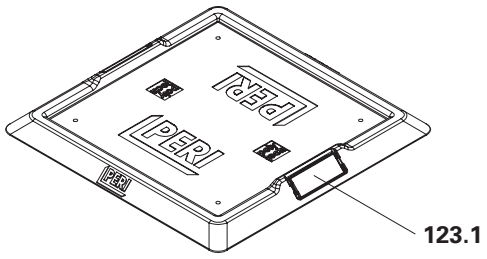


Fig. A8.08

Static proof for transferring forces into the substrate is to be carried out separately.

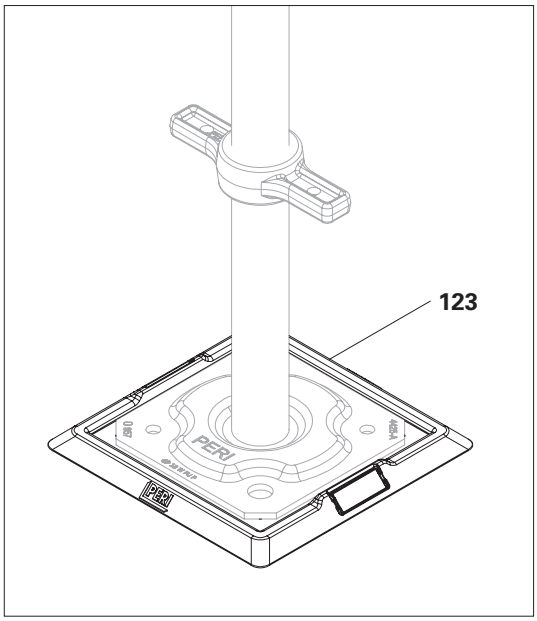


Fig. A8.08a

General

Note

Stability compromised!

⇒ Settlements must be avoided! The scaffold may only be erected on a sufficiently load-bearing substrate, if necessary with load-distributing pads. For the support forces, see Section "E2" or "F2 Support forces".

⇒ Observe the maximum spindle extension! Use the permitted maximum extension length in the tie patterns for each load class and equipment variation.

⇒ In the case of height compensation ≥ 1.00 m, the first scaffold level must be anchored with single-leg wall ties (**46**) in each affected frame column.

Changes in height and inclined erection surfaces

Base compensation

On sloping ground or in the event of changes in height, adjust the scaffold using Standards UVR-2 50/100/150 (**14 15 16**) to accommodate the terrain (see Fig. B1.01).

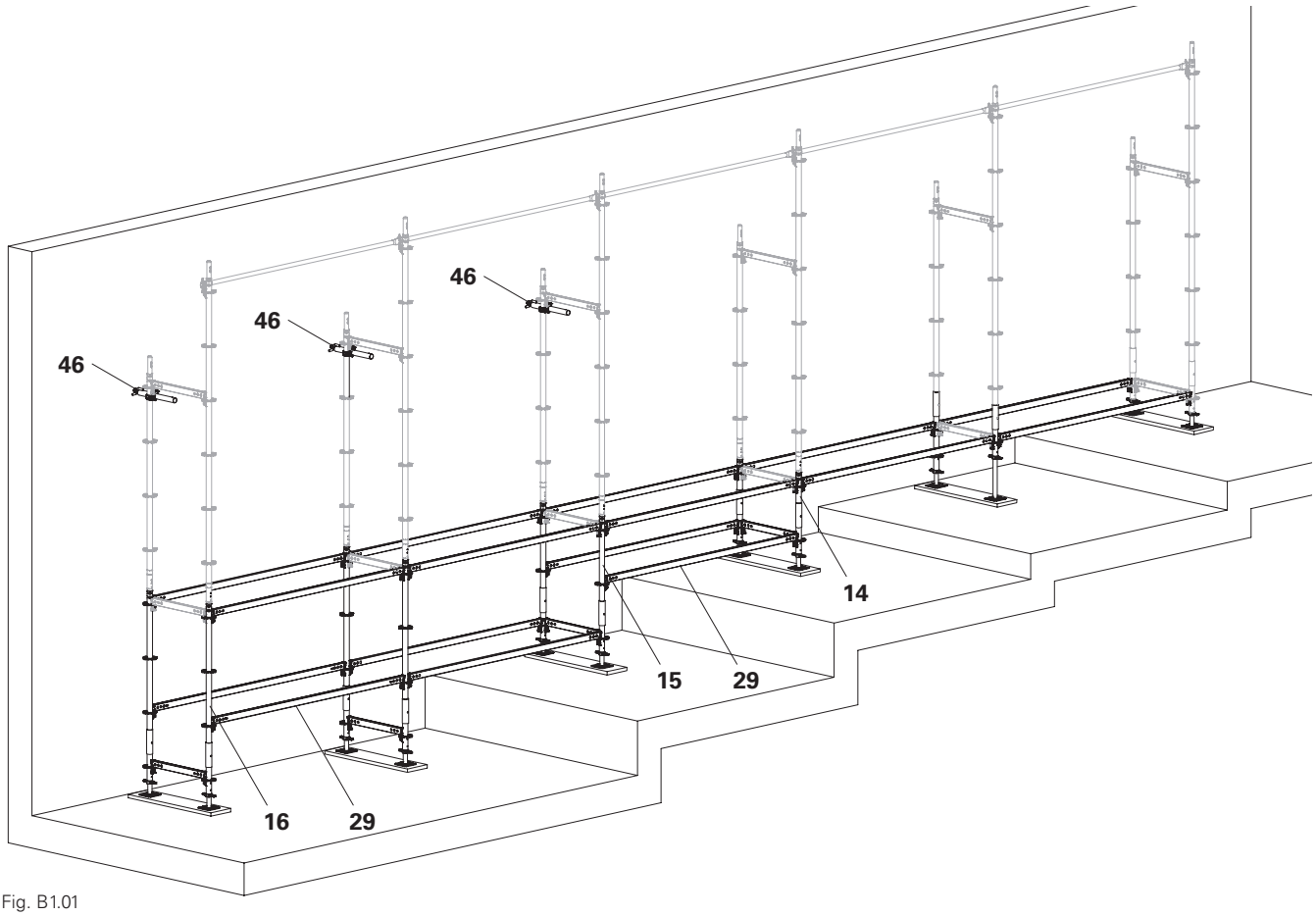


Fig. B1.01

By combining two different Base Spindles UJB (**10/11**) and different Standards UVR-2 (**14/15/16**), differences in height of 0 – 2.00 m can be accounted for without any gaps. (Fig. B1.02)
For combinations, see Tables.

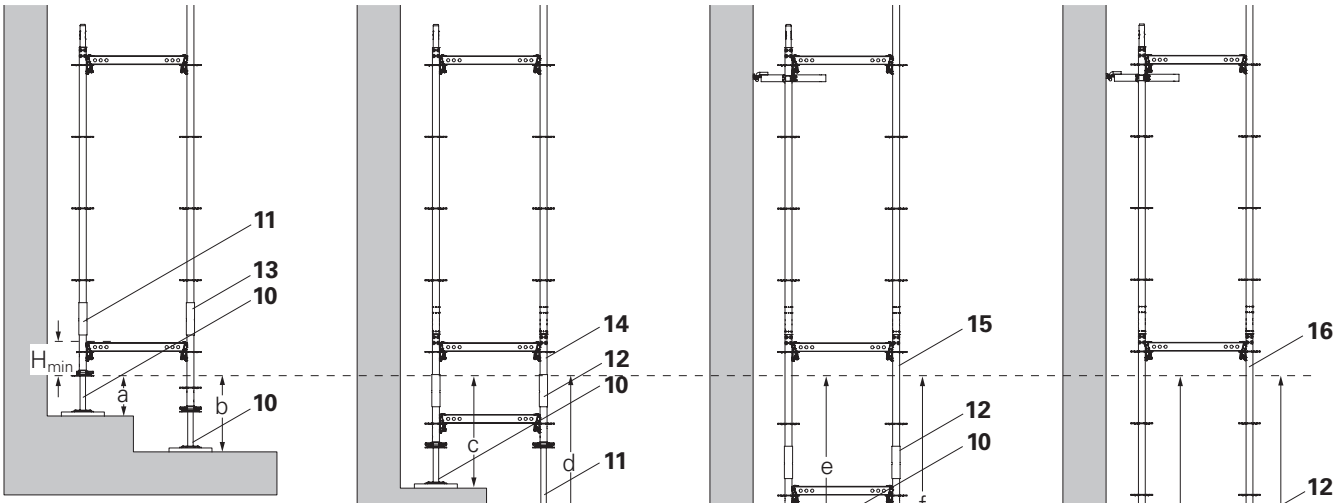
The smallest possible dimension from the contact area to the surface of the base layer H_{min} is 25 cm.

Always use horizontal ledgers to connect the standards at the lower joints.

The Base Spindle UJB 38-50/30 (**10**) with Base Standard UVB 50 (**13**) can be used instead of the Base Spindle UJB 38-80/55 (**11**) with Base Standard UVB 25 (**12**).

Components

10	Base Spindle UJB 38-50/30
11	Base Spindle UJB 38-80/55
12	Base Standard UVB 25
13	Base Standard UVB 50
14	Standard UVR-2 50
15	Standard UVR-2 100
16	Standard UVR-2 150



a = 0 – 25.5 cm
b = 0 – 50.5 cm

c = 50.6 – 75.5 cm
d= 50.6 – 100.5 cm

e = 100.6 – 125.5 cm
f = 100.6 – 150.5 cm

g = 150.6 – 175.5 cm
h = 150.6 – 200.5 cm

Fig. B1.02

Component combinations for height differences

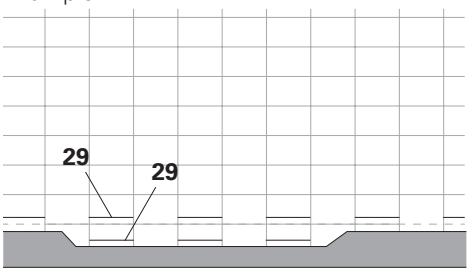
Fig.	Height difference	Base Spindle UJB 38-50/30 (10) (red nut)	Base Spindle UJB 38-80/55 (11) (yellow nut)	Standard UVR-2 50 (14)	Standard UVR-2 100 (15)	Standard UVR-2 150 (16)
a	0 – 25.5 cm	X				
b	0 – 50.5 cm		X			
c	50.6 – 75.5 cm	X		X		
d	50.6 – 100.5 cm		X	X		
e	100.6 – 125.5 cm	X			X	
f	100.6 – 150.5 cm		X		X	
g	150.6 – 175.5 cm	X				X
h	150.6 – 200.5 cm		X			X

Additional bracing
Base compensations require additional longitudinal bracing.
Fit the bracing for the base level shown in the respective tie pattern into the base compensation in the same way.

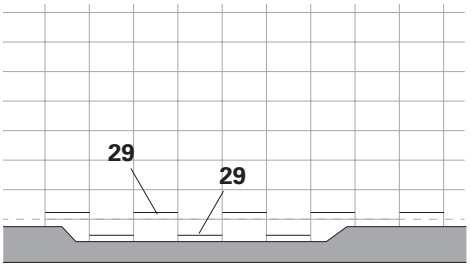
Examples
A Brace the base compensation in pairs with Horizontal Ledgers UH-2 (**29**).
B Always brace frame columns in pairs, regardless of the base position.
C Brace base compensations in accordance with the base level as shown in the respective tie pattern.
D Brace individual upright frame columns using diagonal braces or scaffold tubes (**75**).
E The bracing of the base level jumps on sloping erection surfaces.

- For the permitted maximum extension length for each load class and equipment variation, refer to the tie patterns in the section Tie pattern.
- Separate static proof is required for other cases

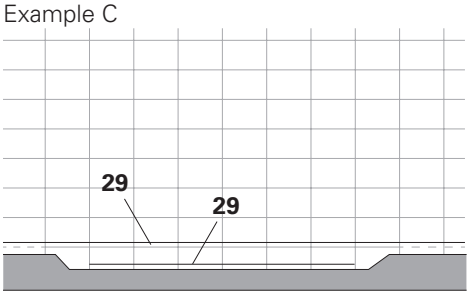
Example A



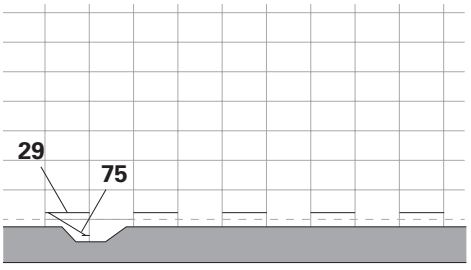
Example B



Example C



Example D



Example E

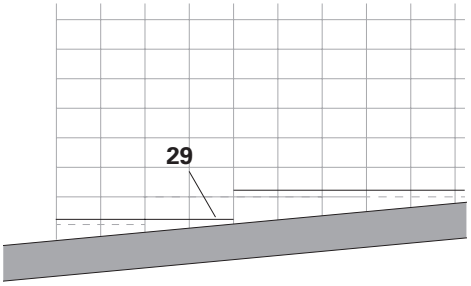


Fig. B1.03

B2 First scaffold bay

General

Assembly of the scaffold must follow the sequence described below!

Components

10 Base Spindle UJB 38-50/30
12 Base Standard UVB 25
30 Steel Deck UDG-2
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300

Load-distributing supports

Use load-distributing supports subject to the load-bearing capacity of the substrate.

- Supports and ground plates must make full-face contact with the substrate.

Assembly

Start assembling at the highest point of the ground (= the least height compensation), see Section "B1 Substructure" on page 44 ff.

1. Set out Horizontal Ledgers UH-2 (**29**) in the longitudinal direction.
2. If necessary, set out load-distributing supports.
3. Set out Horizontal Ledgers UH-2 (**27**) in the transverse direction.
4. Set up the Base Spindles UJB (**10**). (Fig. B2.01)

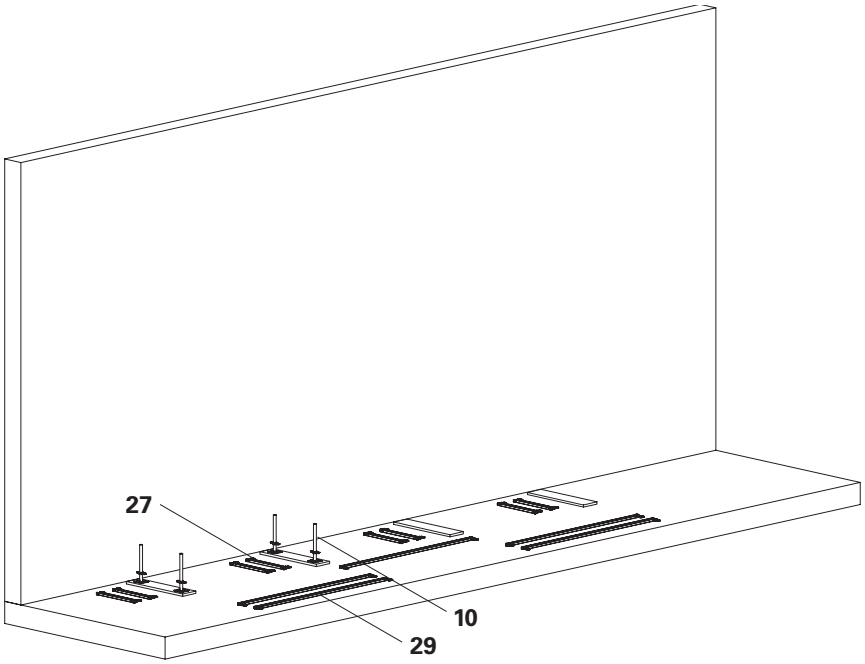


Fig. B2.01

Base unit

- Hammer in wedges of the Horizontal Ledgers UH-2 only after alignment has taken place!

Assembly

1. Fit 2x Base Standards UVB 25 (**12**) onto the base spindles.
2. Fit 1x Horizontal Ledger UH-2 75 (**27**) onto a base unit, do not hammer the wedges in yet.
3. Secure with Horizontal Ledger UH-2 (**29**) to prevent it from falling over. (Fig. B2.02)
4. Fit the second base unit and connect with Horizontal Ledger UH-2 (**29**).
5. The base level is aligned horizontally by accurately adjusting the Base Spindles UJB (**10**). Adjust the distance to the structure. (Fig. B2.03a)
6. Securely fix the wedges of Horizontal Ledger UH-2 (**27+ 29**) in position with a jarring blow using a hammer.

→ The base unit is installed. (Fig. B2.03)

In the base level, horizontal ledgers are sometimes required in the longitudinal direction, see the section Tie pattern. PERI recommends using horizontal ledgers as an assembly aid in each bay.

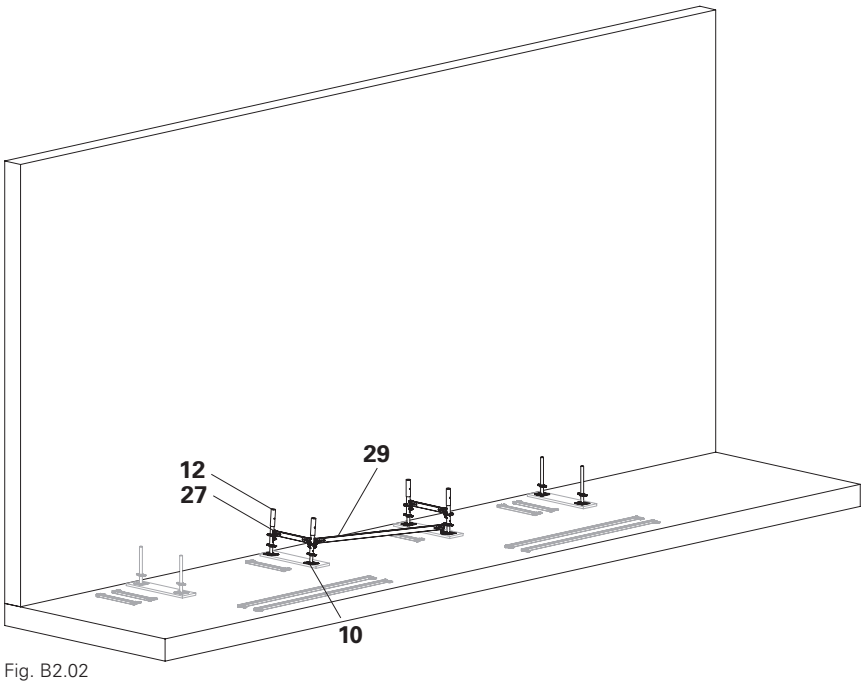


Fig. B2.02

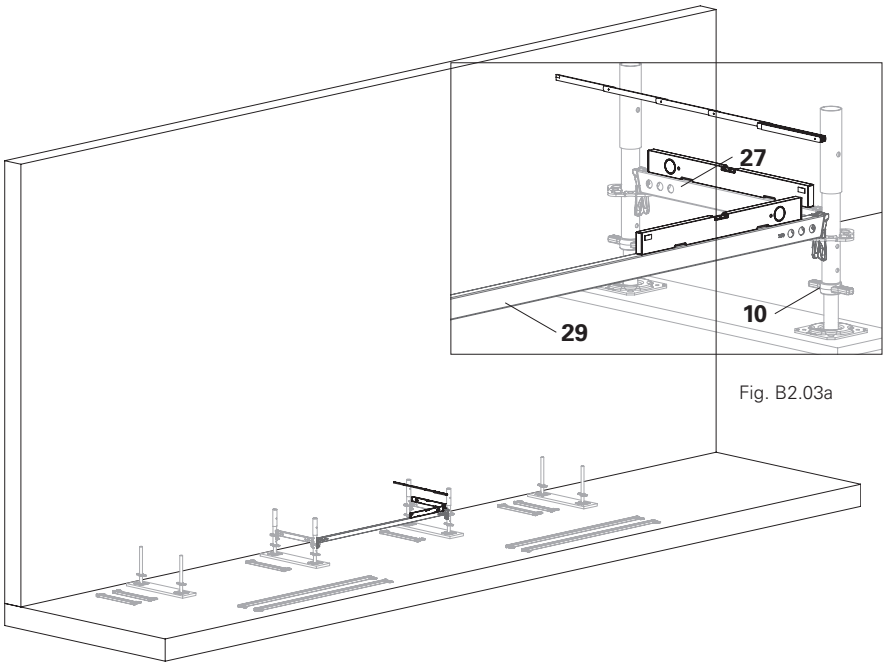


Fig. B2.03a

Fig. B2.03

Assembly aid for the decking

Hook the Steel Deck UDG-2 (**30**) into the base unit as an assembly aid.

Assembly

1. Pick up the deck (**30**) from the centre and place it on the Horizontal Ledgers UH-2 (**27**).

→ The deck is now installed.
(Fig. B2.04)

Have both lift locks (**30.1**) dropped below the horizontal ledger?
If not, lift the deck slightly and let it drop into position or operate the lift lock manually.
(Fig. B2.04a)

The decks (**30**) used at the bottom level are assembly aids only. They can be removed later. This does not apply to bays where access decks are fitted.

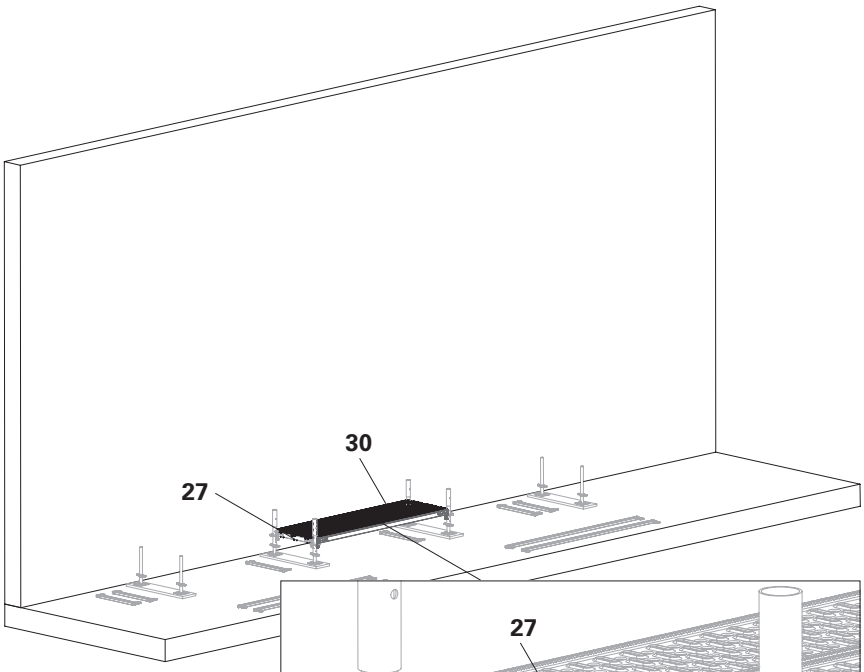


Fig. B2.04

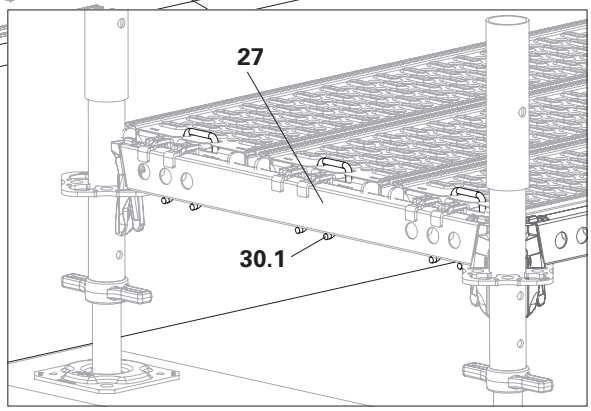


Fig. B2.04a

Standards and guardrail post

Components

17 Standard UVR-2 200
18 Standard UVR-2 300
27 Horizontal Ledger UH-2 75
51 Guardrail Post EPG
59 Guardrail Holder EPW

The Guardrail Post EPG (**51**) is continuously mounted together with the standard (**18**) from a secure position in the next scaffold bay.

Assembly

1. Fit a Guardrail Holder EPW (**59**) onto the top rosette of Standard UVR-2 300 (**18**) ahead of time.
2. Attach the pre-assembled standard to the base standard (**12**) on the outside of the scaffold. The Guardrail Holder EPW must face inwards. (Fig. B2.05)
3. Attach the Guardrail Post EPG (**51**) to the guardrail hook (**59.1**) of the guardrail holder, see "A3 System components: Lateral protection" on page 23 ff.

(Fig. B2.06)

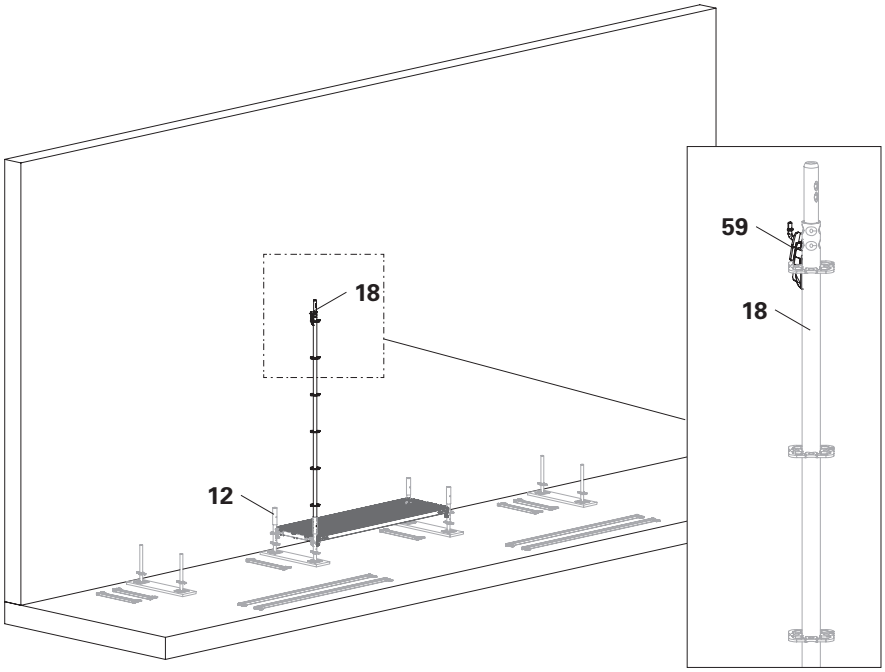


Fig. B2.05

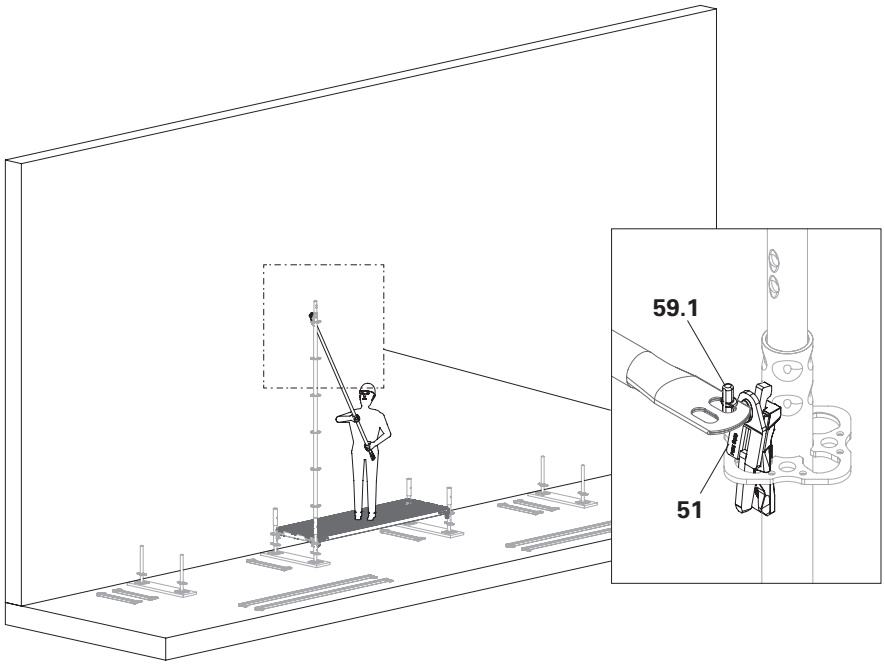


Fig. B2.06

3. Attach the Guardrail Post EPG (**51**) to the guardrail hook (**59.1**) of the guardrail holder (**59**) on the second standard.
(Fig. B2.07)

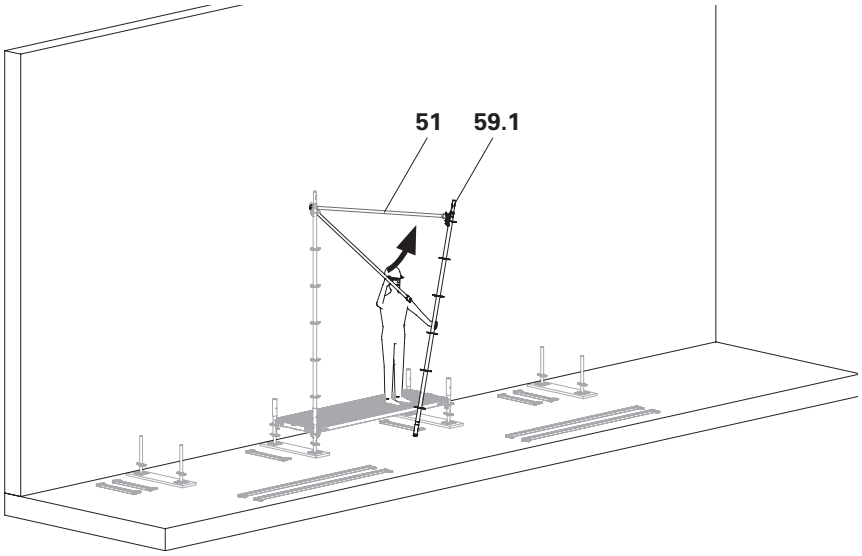


Fig. B2.07

4. Position the second standard (**18**) together with Guardrail Post EPG (**51**) on the Base Standard UVB (**12**) that is available.
(Fig. B2.08)

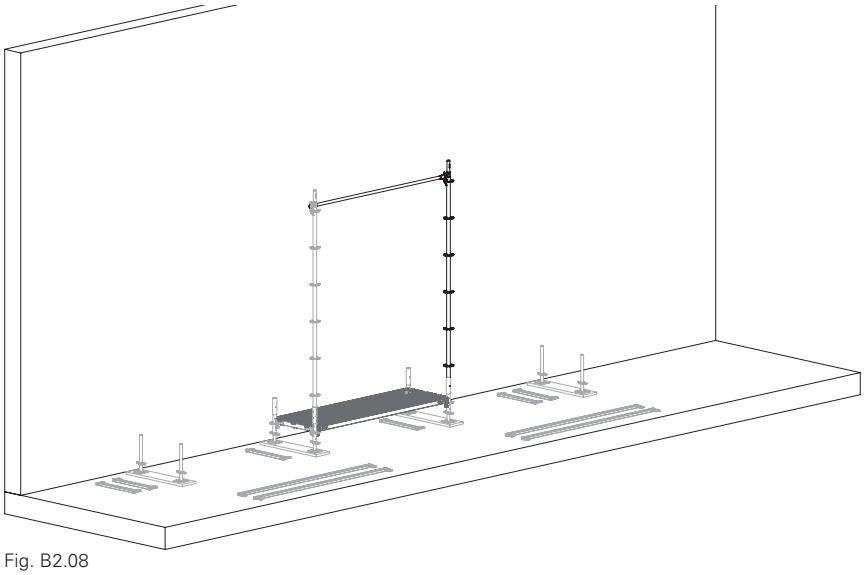


Fig. B2.08

5. Fit two Standards UVR-2 200 (**17**) on the inner side of the scaffold.
6. Connect standards to the Horizontal Ledger UH-2 75 (**27**) at the deck level.

→ The standards and guardrail post are now installed.
(Fig. B2.09)

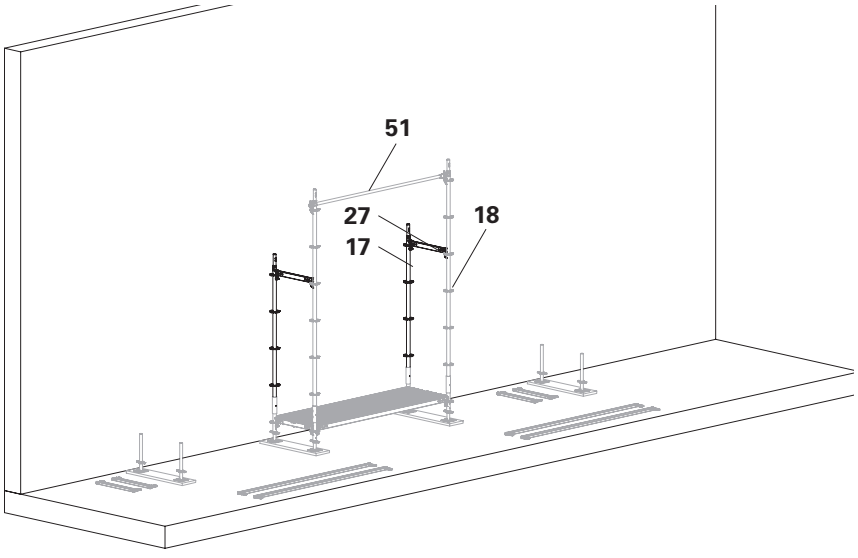


Fig. B2.09

Decks

Components

30	Steel Deck UDG-2

Note

Stability compromised without system decking.

⇒ System decks are bracing components and must, therefore, be installed across the full scaffold width and in every scaffold bay!

Assembly

1. To install the decks, see "A4 System components: Deck" on page 32.

→ The deck is now installed.
(Fig. B2.10)

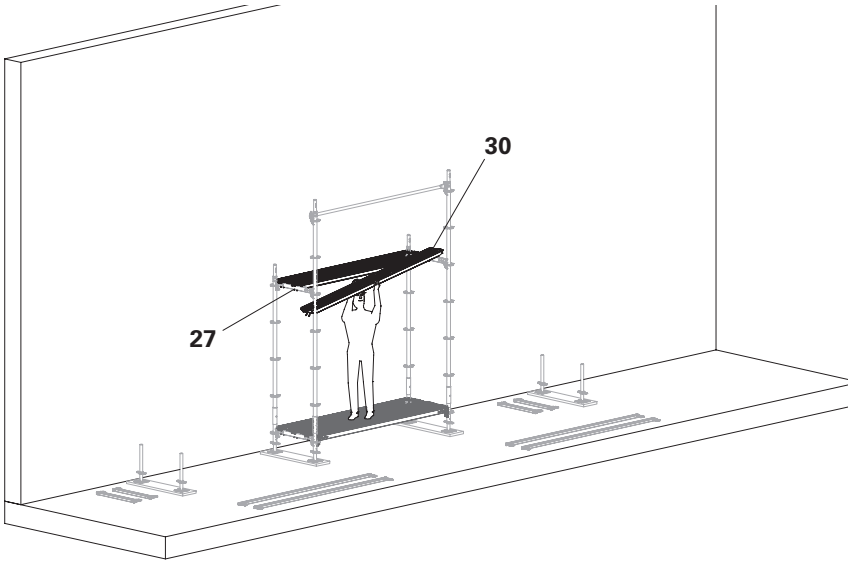


Fig. B2.10

Horizontal Ledgers UH-2 are also required on certain deck levels.
See Section Tie pattern.

Face braces

Diagonal bracing is not required in the standard configurations shown in these Instructions for Assembly and Use. Additional or deviating superstructures may require diagonal bracing.
→ Provide static proof.

Other scaffold bays

Components

12 Base Standard UVB 25
17 Standard UVR-2 200
18 Standard UVR-2 300
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300
30 Steel Deck UDG-2
40 Access Deck EAW-L
51 Guardrail Post EPG
52 End Guardrail in Advance UPA-2
59 Guardrail Holder EPW

The other scaffold bays are assembled starting from the first scaffold bay. (Fig. B3.01)

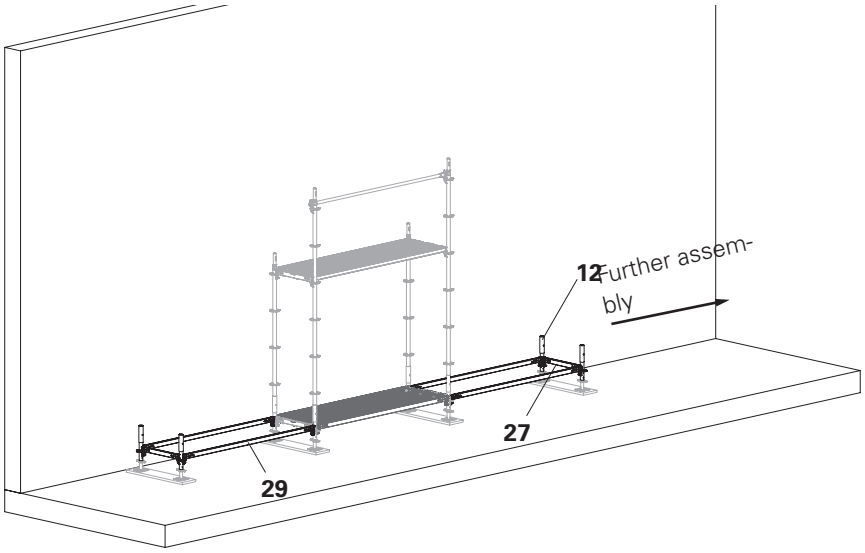


Fig. B3.01

Assembly

1. Insert additional Base Standards UVB 25 (**12**) into Base Spindles UJB and connect with horizontal ledgers (**27**).
2. Connect to existing scaffold bay with horizontal ledger (**29**) and align. Secure the wedges. (Fig. B3.01)
3. Position decks (**30**) as assembly aids.

➔ If the base level is to be used as a working area, PERI recommends covering the entire level with decking.
(Fig. B3.02)

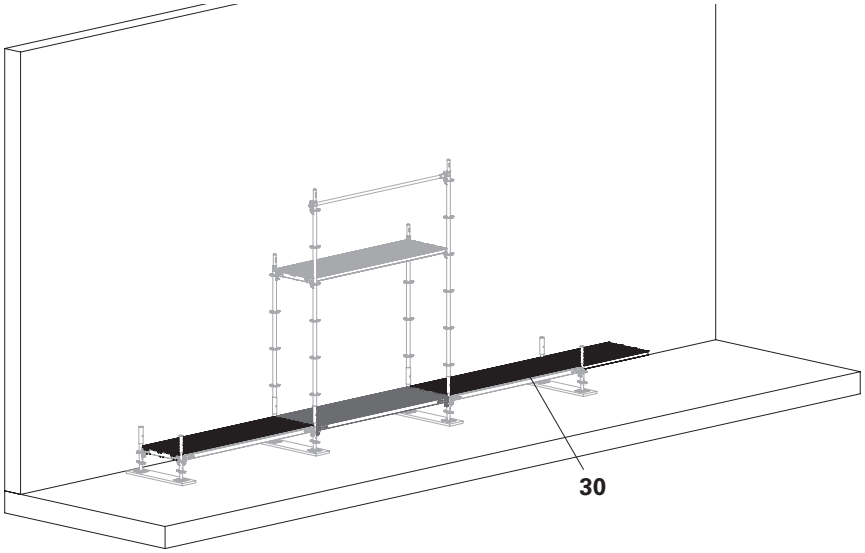


Fig. B3.02

4. Fit a Guardrail Holder EPW (**59**) onto the top rosette of Standard UVR-2 300 (**18**) ahead of time.
5. Attach the Guardrail Post EPG (**51**) to the guardrail hook of the existing scaffold bay.
6. Hook the other side of the guardrail post onto the pre-assembled standard and push them onto the Base Standard UVB (**12**).
7. Fit Standards UVR-2 200 (**17**) on the inner side of the scaffold.
8. Connect standards (**17 + 18**) to the horizontal ledgers (**27**) at the deck level. Secure the wedges. (Fig. B3.03)
9. Install End Guardrail in Advance UPA-2 (**52**) in the edge bay, see Section "End Guardrail in Advance UPA-2" on page 28.

(Fig. B3.04)

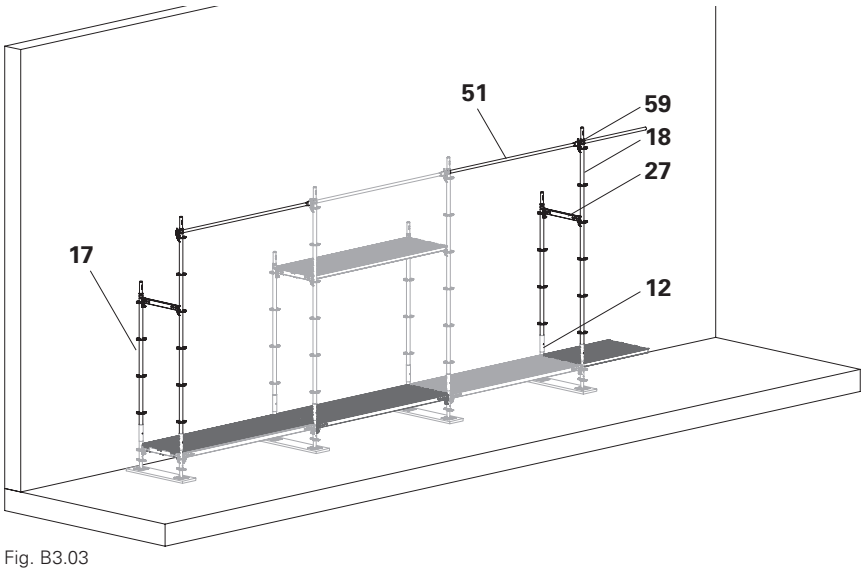


Fig. B3.03

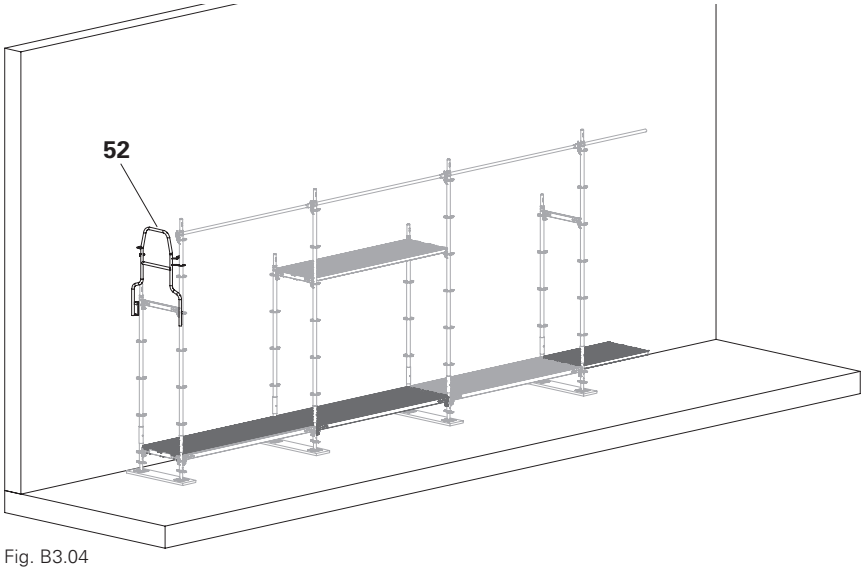


Fig. B3.04

10. Install decks (**30**) in the first scaffold level.
11. Install Access Decks EAW-L (**40**), see "Internal access with access deck" on page 86.

→ Other scaffold bays have been installed.
(Fig. B3.05)

After these work steps, the decks (**30a**) can be removed and used elsewhere. To a certain extent, horizontal ledgers (**29**) are required for structural reasons, see Tie pattern.

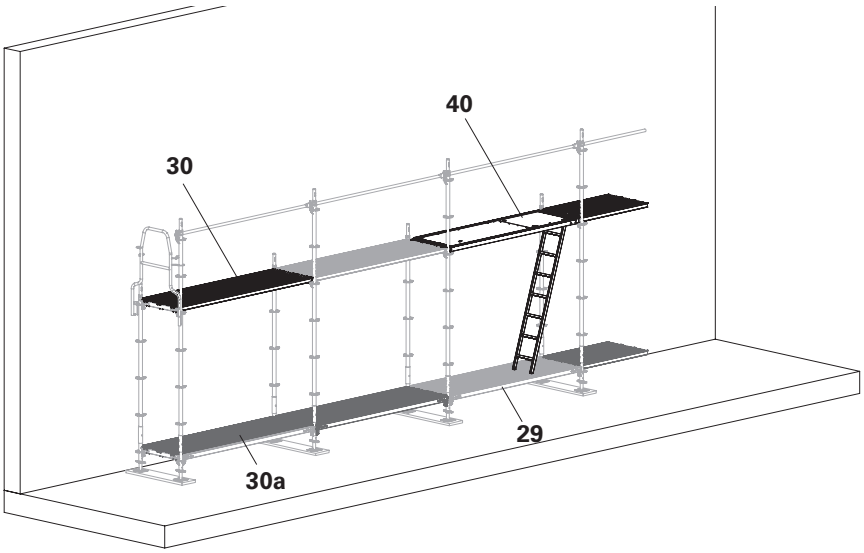


Fig. B3.05

Lateral protection

Components

29 Horizontal Ledger UH-2 300
56 Toe Board UPF
57 Toe Board UPY

Ensure that lateral protection is complete in every scaffold bay.

Intermediate guardrail

Assembly

1. Fit a Horizontal Ledger UH-2 (**29**) as an intermediate guardrail. Secure the wedges.

→ The intermediate guardrail is now in place.
(Fig. B3.06)

Horizontal ledgers as intermediate guardrails are required in every bay for structural reasons.

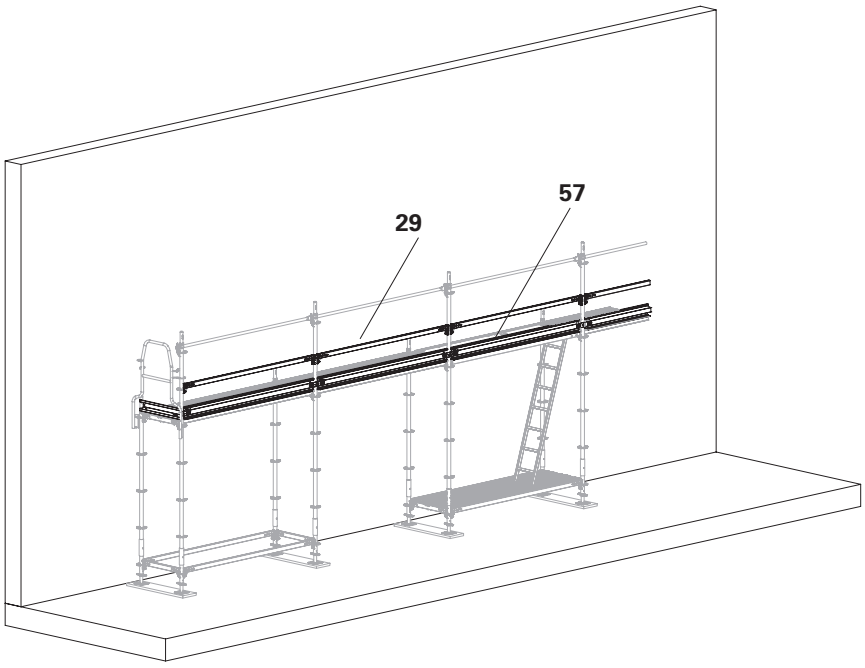


Fig. B3.06

Toe board

Assembly

1. Fit Toe Board UPY (**57**) on both sides, one after the other onto the standards, see Section "A3 System components: Lateral protection" on page 23 ff

→ The toe board is installed.
(Fig. B3.06)

Toe Boards UPF (**56**) can be installed instead of Toe Boards UPY, see Section "A3 System components: Lateral protection" on page 23 ff.
(Fig. B3.07)

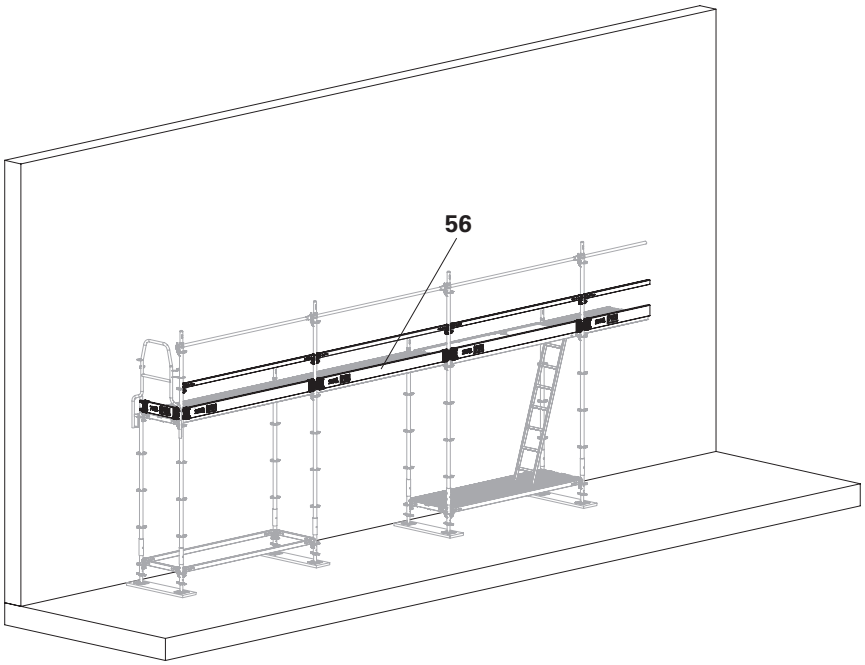


Fig. B3.07

Other levels

Components

17 Standard UVR-2 200
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300
30 Steel Deck UDG-2
46 Wall Tie UWT
51 Guardrail Post EPG
52 End Guardrail in Advance UPA-2
57 Toe Board UPY
59 Guardrail Holder EPW

General

The guardrail post in advance can remain in the completed scaffold level or be used for the next scaffold level. Then the guardrail post must be replaced with a horizontal ledger.

Replacing the guardrail post

- Replace guardrail posts with horizontal ledgers in the reverse direction of assembly.

1. Fit the horizontal ledgers (**29**) in front of the guardrail posts.
2. Remove the Guardrail Holders EPW and the Guardrail Posts EPG one by one and use them for the next scaffold level.

→ The guardrail posts have been replaced.

(Fig. B4.01)

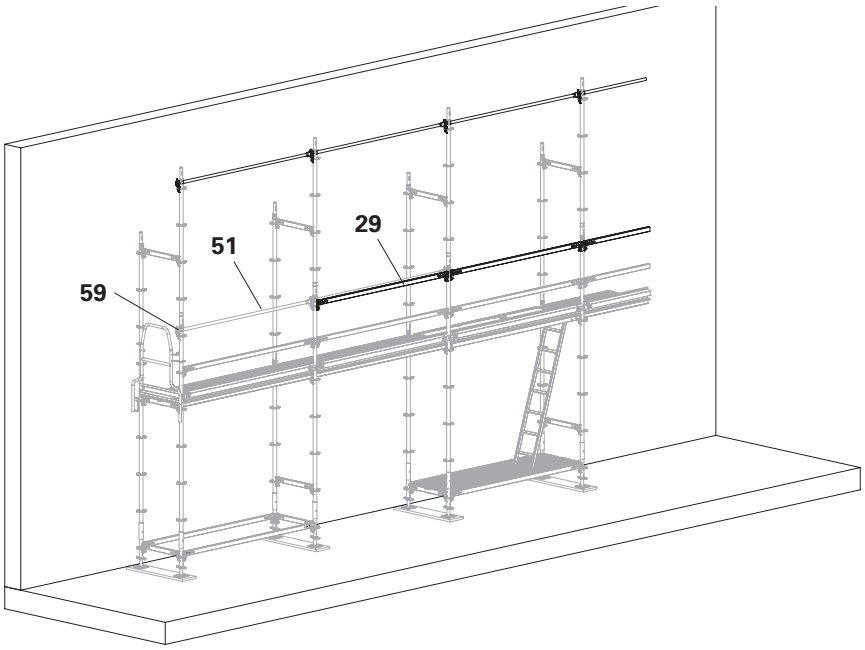


Fig. B4.01

Assembly

1. Fit Standards UVR-2 200 (**17**) onto all inner legs.
2. Fit Standards UVR-2 200 (**17a**) with Guardrail Holder EPW (**59**) and Guardrail Post in Advance EPG (**51**) onto all outer legs.
3. Connect standards (**17 + 17a**) to the horizontal ledgers (**27**) at the deck level. Secure the wedges.

(Fig. B4.02)

Depending on the variant, additional Horizontal Ledgers UH-2 75 (**27a**) may be required, see Tie pattern.

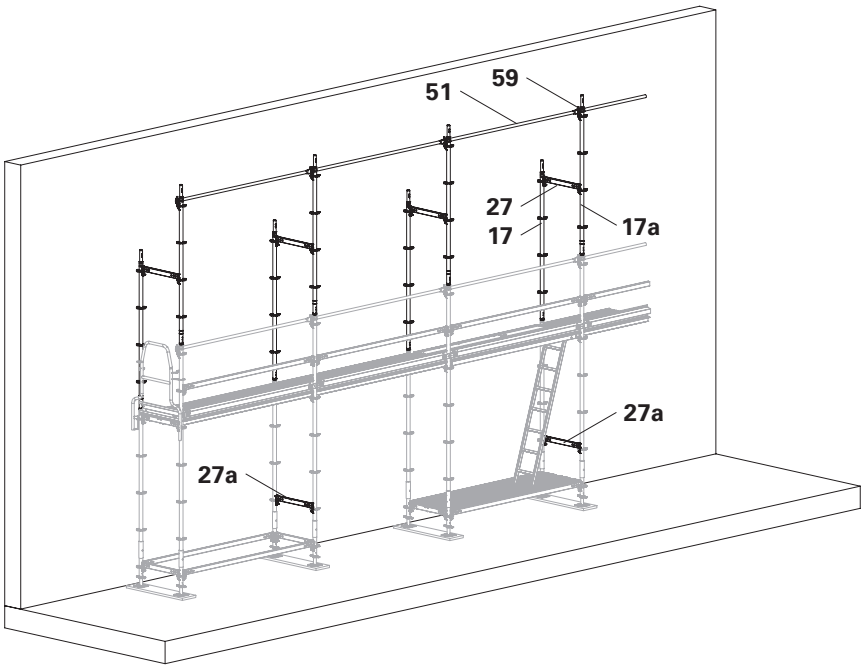


Fig. B4.02

4. Attach End Guardrail in Advance UPA-2 (**52**) to the front side.
5. Install decking (**30**).

(Fig. B4.03)

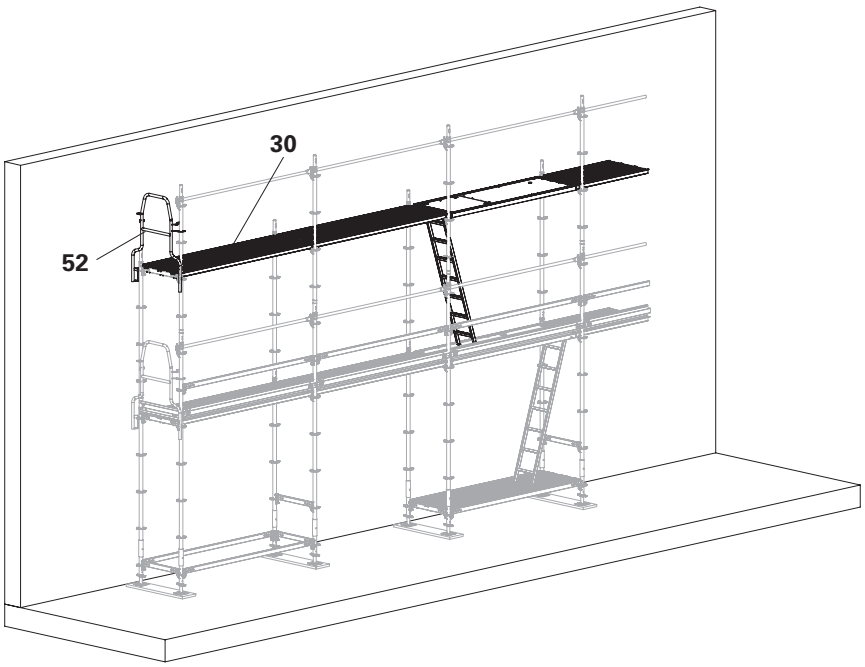


Fig. B4.03

6. Fit the horizontal ledger as an intermediate guardrail (**29a**) and the Toe Board UPY (**57**).
→ The next level is now installed.
(Fig. B4.04)

Repeat assembly steps 1 to 6 until all scaffold levels are complete.

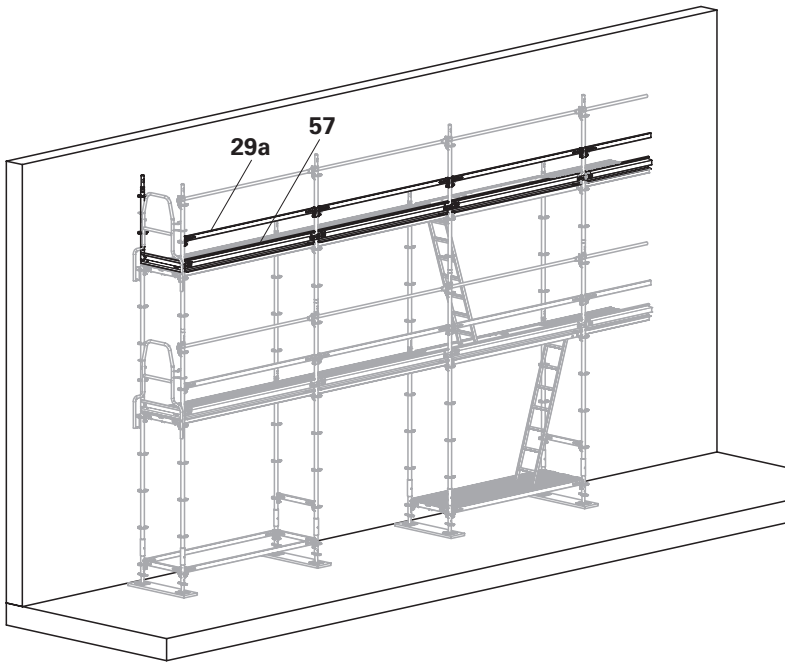


Fig. B4.04

Anchoring
Fit Wall Ties UWT (**46**) continuously in line with the scaffold assembly.
(Fig. B4.05 + B4.05a)

Refer to Section "Tie pattern" for the number and position of the ties.

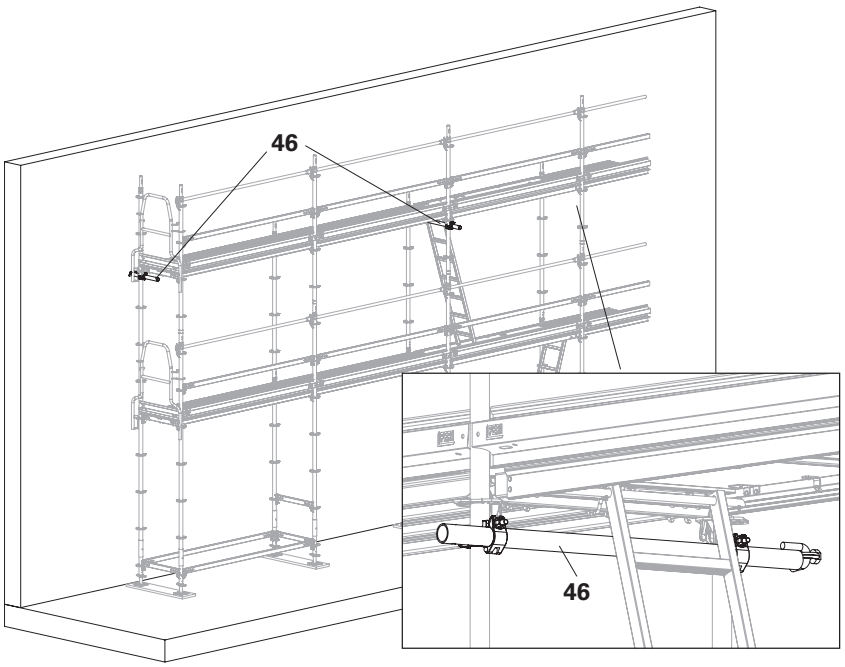


Fig. B4.05

Fig. B4.05a

Disassembly

- Follow the dismantling sequence!
- Before dismantling the scaffolding, check that all guardrail posts are mounted in the same direction on the guardrail hooks in a "fish scale arrangement".
- Have any dismantled components taken away from the scaffold immediately; do not store them somewhere temporarily.

Disassembly

1. Remove the Toe Boards UPY (**57**) and the horizontal ledgers (**29**) that are mounted as intermediate guardrails. The top Guardrail Posts EPG (**51**) remain in position as anti-fall protection.

(Fig. B5.01)

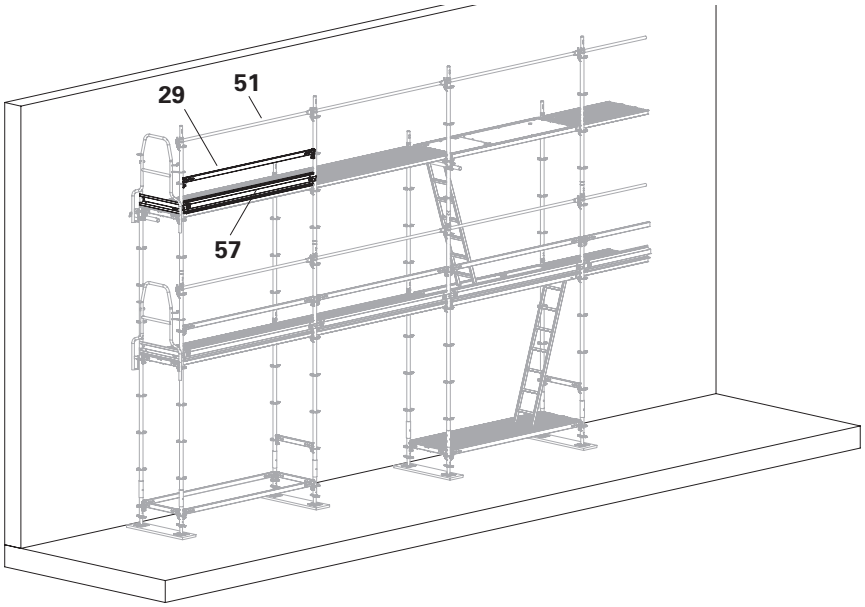


Fig. B5.01

2. From the level immediately below, remove the Wall Tie UWT (**46**), decks (**30**) and End Guardrail in Advance UPA-2 (**52**).

(Fig. B5.02)

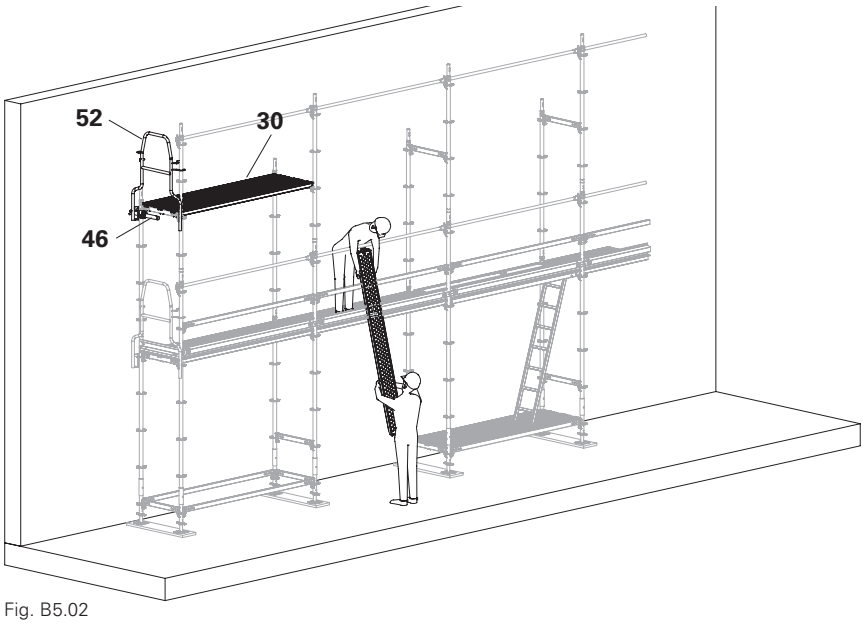


Fig. B5.02

3. Remove the Horizontal Ledger UH-2 75(**27**).
4. Remove the standards on the inner side of the scaffold.
5. Remove the standards (**17**) together with the top Guardrail Post EPG (**51**) in the reverse order of the assembly sequence. Otherwise the guardrail posts cannot be unhooked.

(Fig. B5.03)

Repeat steps 1 – 4 until the entire scaffold has been dismantled.

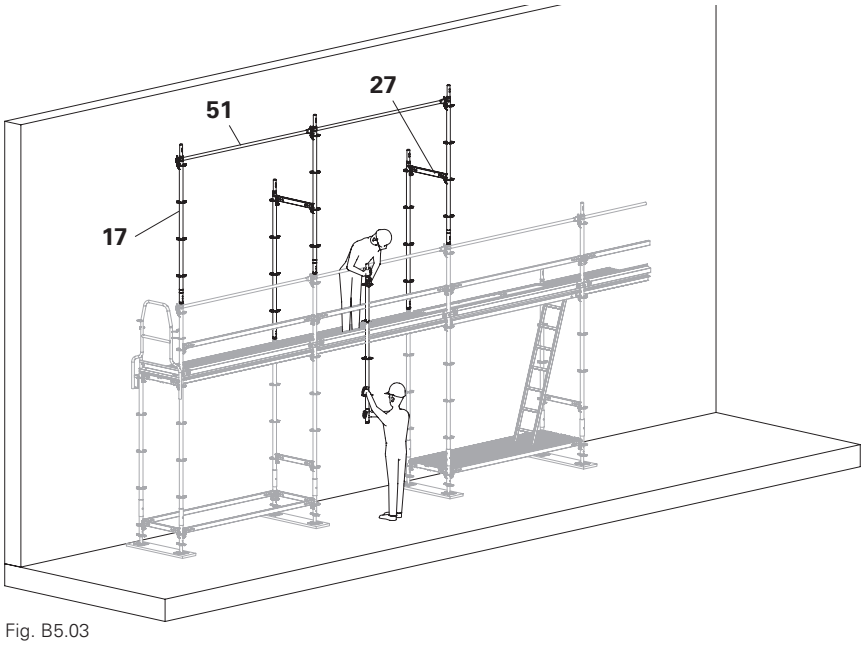


Fig. B5.03

Note

Do not drop the guardrail post. This will prevent any possible damage to the guardrail post or decks.

⇒ Guide the guardrail post manually.

To dismantle the last scaffold level, install auxiliary decks at the base level.

B6 Corner configuration

General

- Start the assembly process at the corner.
- Position decks in the base level as assembly aids.

Outside corner

The decks of the base level are not necessary from a structural point of view and can be removed again.

Base level

Components

10	Base Spindle UJB 38-50/30
12	Base Standard UVB 25
27	Horizontal Ledger UH-2 75
29	Horizontal Ledger UH-2 300
30	Steel Deck UDG-2
90	Ledger-to-Ledger Coupler UHA-2

Assembly

1. Assemble the base units consisting of base spindles (**10**), base standards (**12**) and Horizontal Ledgers UH-2 75 (**27**).
2. Fit Horizontal Ledgers UH-2 (**29 + 29a**) in the continuous scaffold bay (**A**).
3. Attach Ledger-to-Ledger Coupler UHA-2 (**90**) to the Horizontal Ledger UH-2 (**29a**).
4. Fit Horizontal Ledger UH-2 (**29b**) onto the Ledger-to-Ledger Coupler UHA-2 (**90**) and Base Standard (**12**) in the adjacent scaffold bay.
5. Connect the adjacent scaffold bay (**B**) to another horizontal ledger (**29**). (Fig. B6.01 + B6.01a)

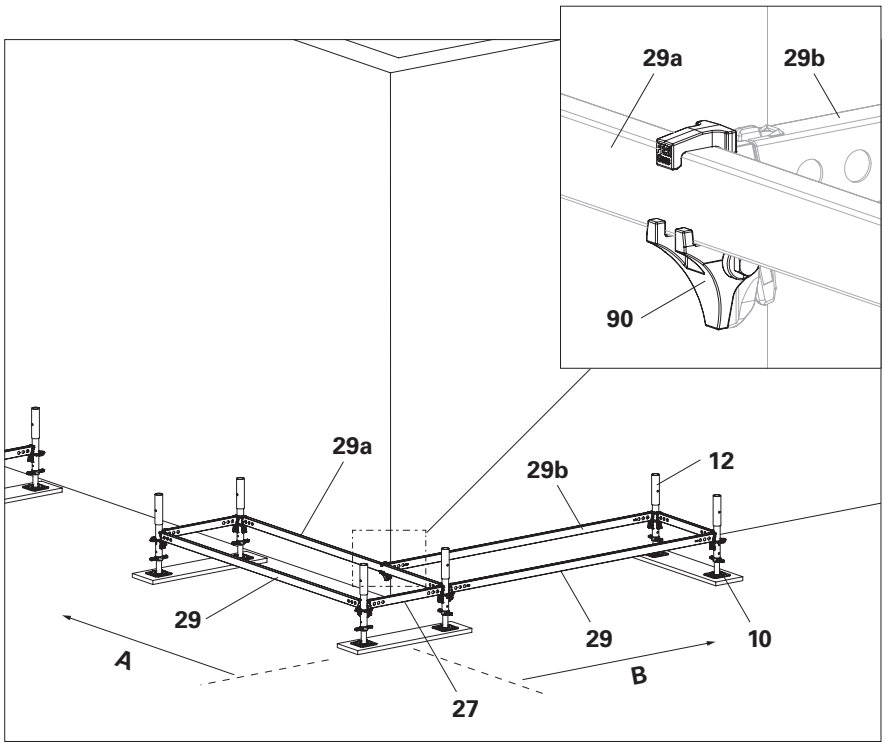


Fig. B6.01

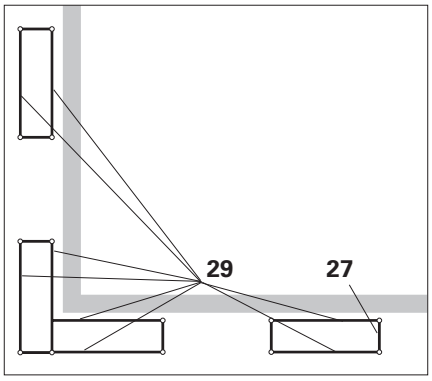


Fig. B6.01a

Arrangement of the Horizontal Ledgers UH-2 (**29**) in the base level.

Continuous scaffold bay

Components

17 Standard UVR-2 200
18 Standard UVR-2 300
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300
30 Steel Deck UDG-2
51 Guardrail Post EPG
52 End Guardrail in Advance UPA-2
57 Toe Board UPY
59 Guardrail Holder EPW

1. Set out the base level using decks (**30**) as an installation aid.
2. Fit two Standards UVR-2 300 (**18**) onto the corner frame corner with a pre-mounted Guardrail Holder EPW (**59**).
   – The guardrail hook (**59.1a**) points in the direction of the continuous scaffold.
   – The guardrail hook (**59.1b**) points in the direction of the adjacent scaffold.
3. Connect standards to the Horizontal Ledger UH-2 75 (**27**).
4. Attach the guardrail post (**51**).

(Fig. B6.02)

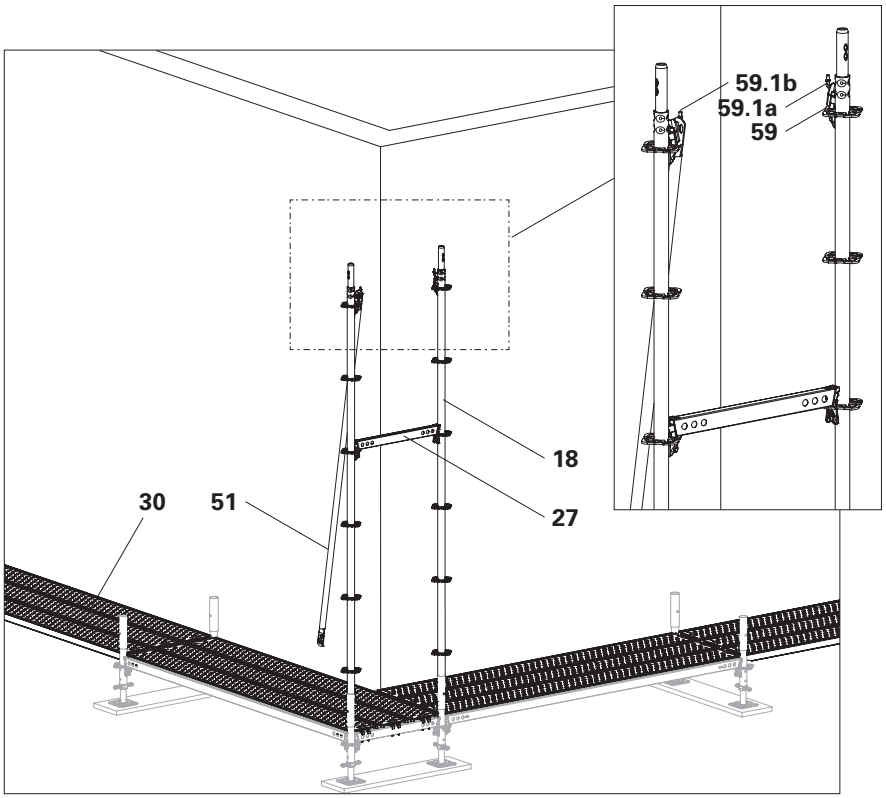


Fig. B6.02

4. Insert the Standards (**18**) with Guardrail Post EPG (**51**) into the next frame column.
5. Fit the Standard UVR-2 200 (**17**) onto the inner side of the scaffold.
6. Fit Horizontal Ledger UH-2 75 (**27**). Secure the wedges.

(Fig. B6.03)

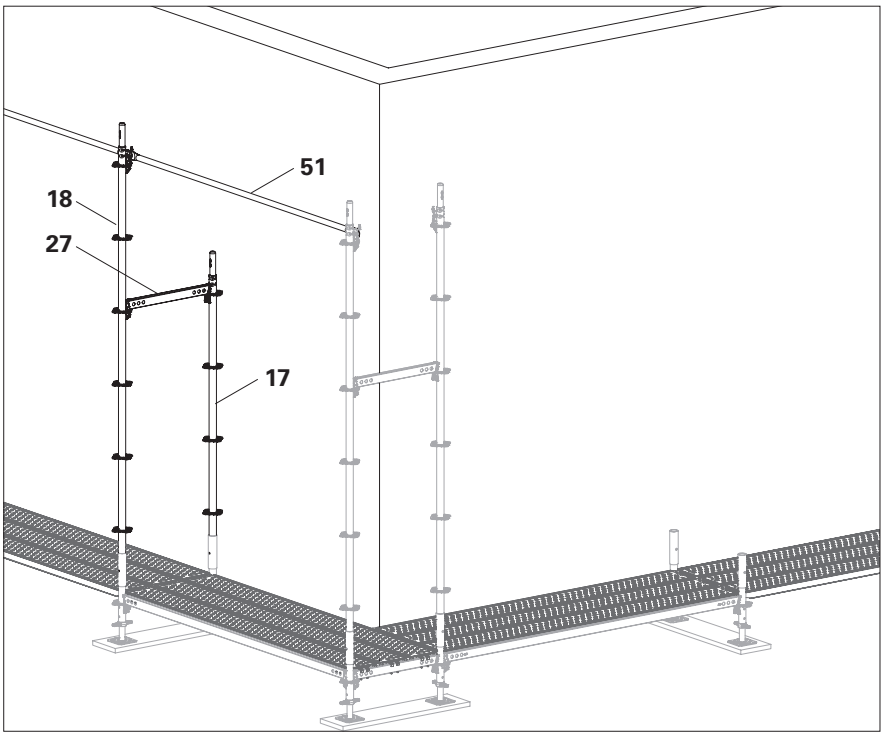


Fig. B6.03

7. Fit End Guardrail in Advance UPA-2 (**52**).
8. Fit Horizontal Ledger UH-2 (**29**) on the inner side of the continuous scaffold bay.
9. Install the decks, excluding the corner bay.

(Fig. B6.04)

- Depending on the variant, additional Horizontal Ledgers UH-2 300 may be required in the longitudinal direction, see Tie pattern.

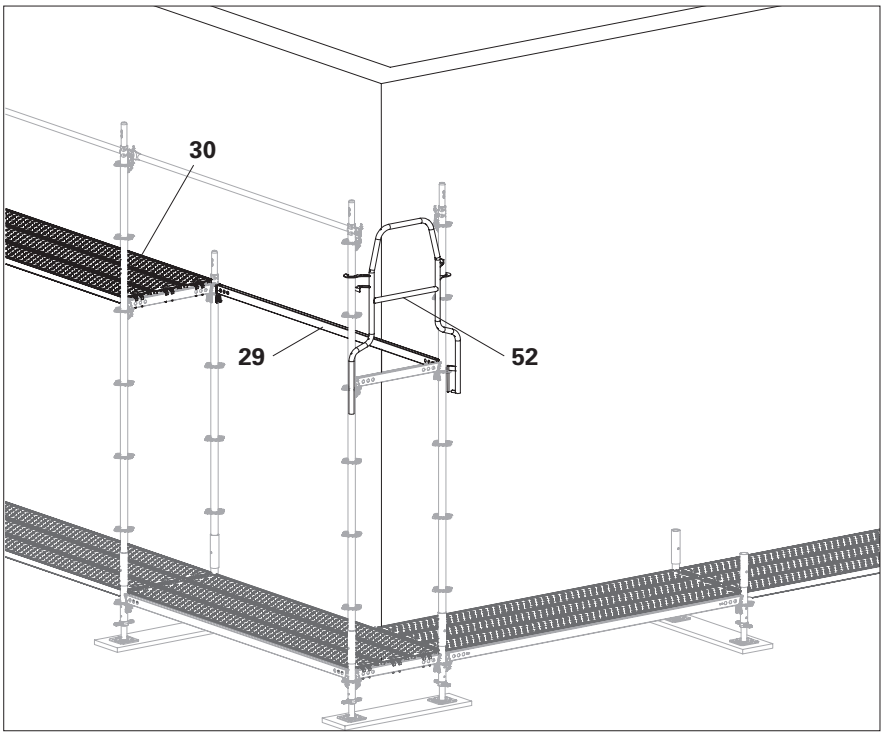


Fig. B6.04

Adjacent scaffold bay

Components

17 Standard UVR-2 200
18 Standard UVR-2 300
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300
30 Steel Deck UDG-2
51 Guardrail Post EPG
57 Toe Board UPY
59 Guardrail Holder EPW

Assembly

1. For the adjacent scaffold bay, attach Guardrail Post EPG (**51**) to the inwardly turned guardrail hooks (**59.1**) of the standard (**18**) from the level immediately below.
2. For the adjacent scaffold bay, fit Guardrail Post EPG (**51**) with another pre-assembled standard (**18a**).
3. Fit a Standard UVR-2 200 (**17**) on the inner side of the scaffold and connect it to the horizontal ledger (**27**). (Fig. B6.05)
4. Fit the steel decks (**30**) of the adjacent scaffold bay, then fit the steel decks (**30a**) of the continuous scaffold bay.

(Fig. B6.06)

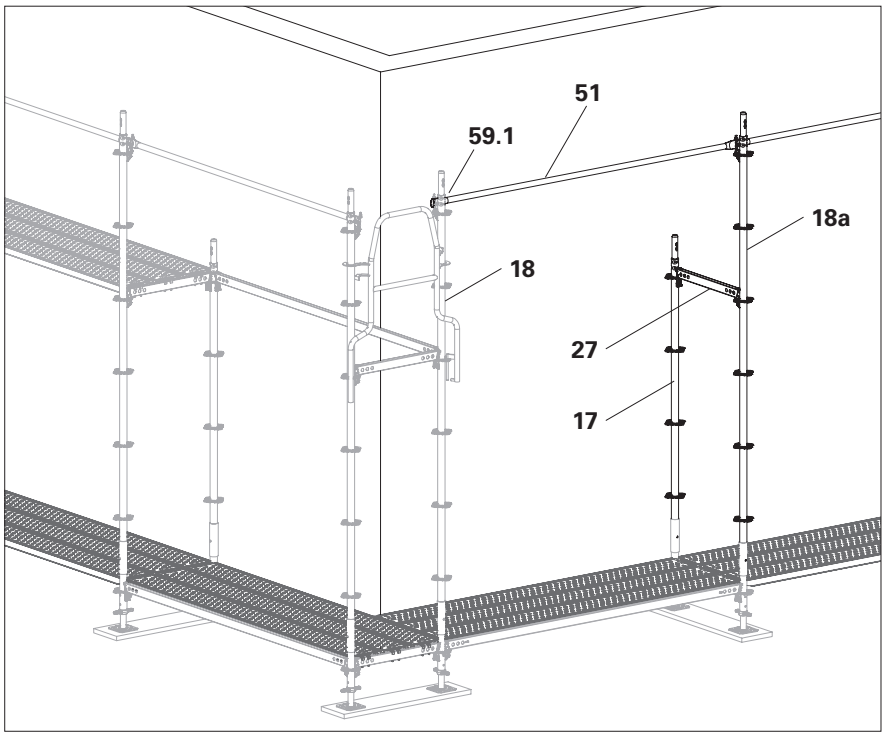


Fig. B6.05

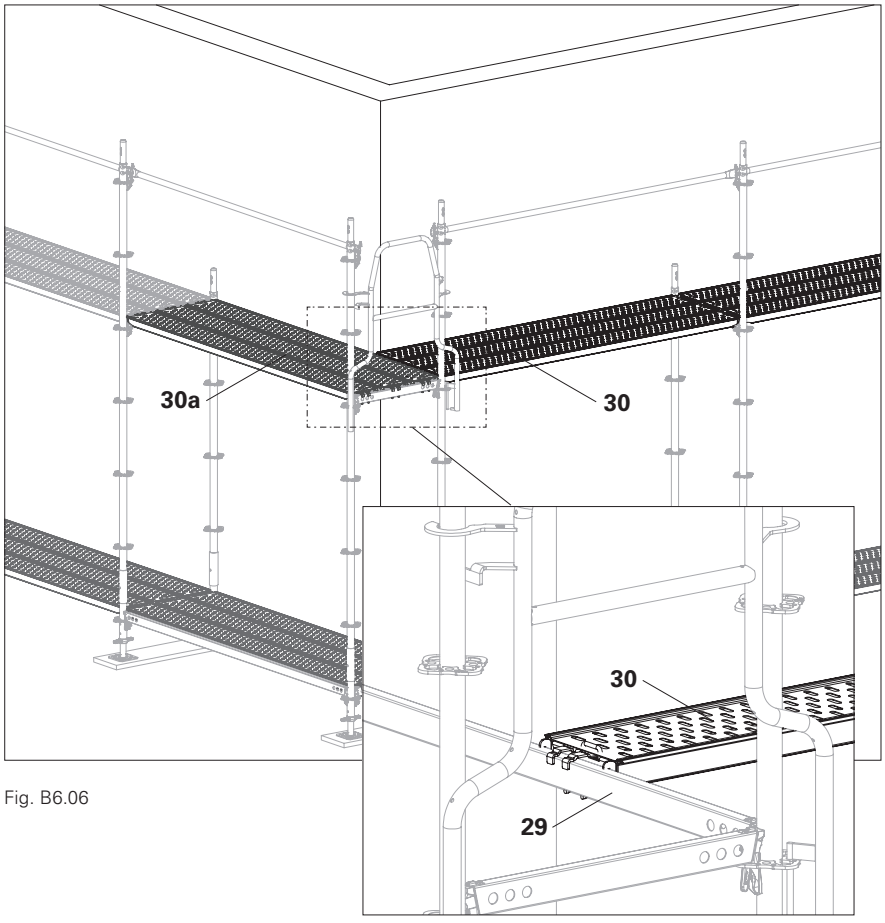


Fig. B6.06

5. Complete the lateral protection with a horizontal ledger as an intermediate guardrail (**29**) and Toe Boards UPY (**57**).
6. Fit a Horizontal Ledger UH-2 (**27**) onto the corner frame column at a height of 50 cm. (Required from a structural point of view).
7. The assembly decks in the base level can be removed.
8. Fit additional horizontal ledgers (**27**) in the base level at a height of 50 cm, depending on the variant at hand. See Section Tie pattern.
   Mark the horizontal ledgers as obstacles if the base level decks are not removed.

→ The external corner is now complete. (Fig. B6.07)

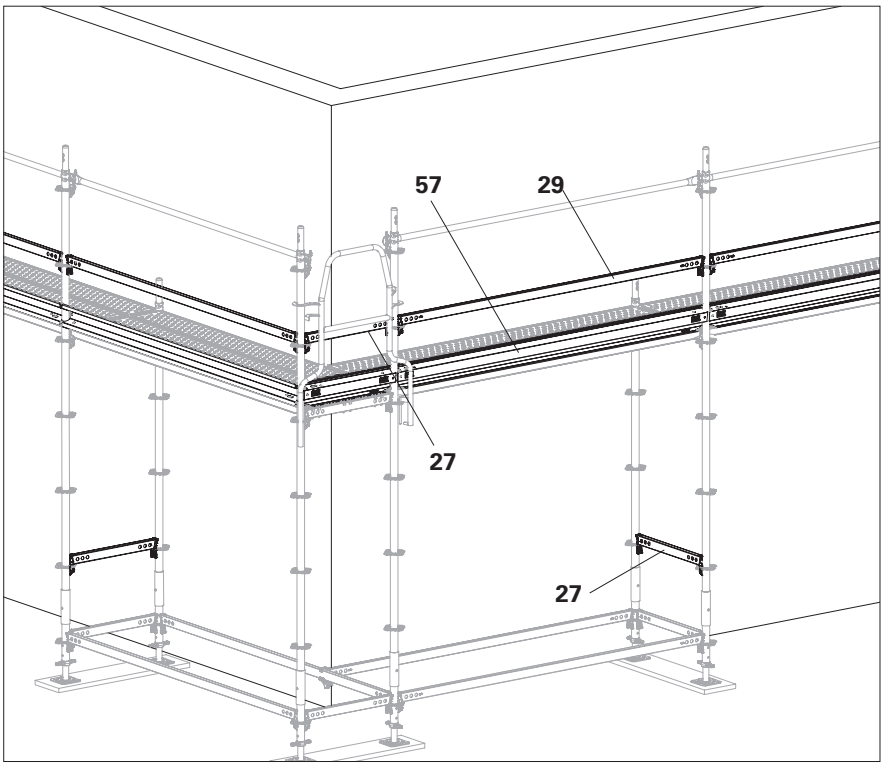


Fig. B6.07

inside corner

The decks of the base level are not necessary from a structural point of view and can be removed again.

Base level

Components

10	Base Spindle UJB 38-50/30
12	Base Standard UVB 25
27	Horizontal Ledger UH-2 75
29	Horizontal Ledger UH-2 300

Assembly

1. In the inside corner, assemble four Base Spindles (**10**) and Base Standards UVB 25 (**12**) with 4 Horizontal Ledgers UH-2 75 (**27**) to form a corner tower.
2. In each case, connect the next frame column using two Horizontal Ledgers UH-2 (**29**).

- For the horizontal ledger arrangement, see Fig. B6.08 + B6.08a.

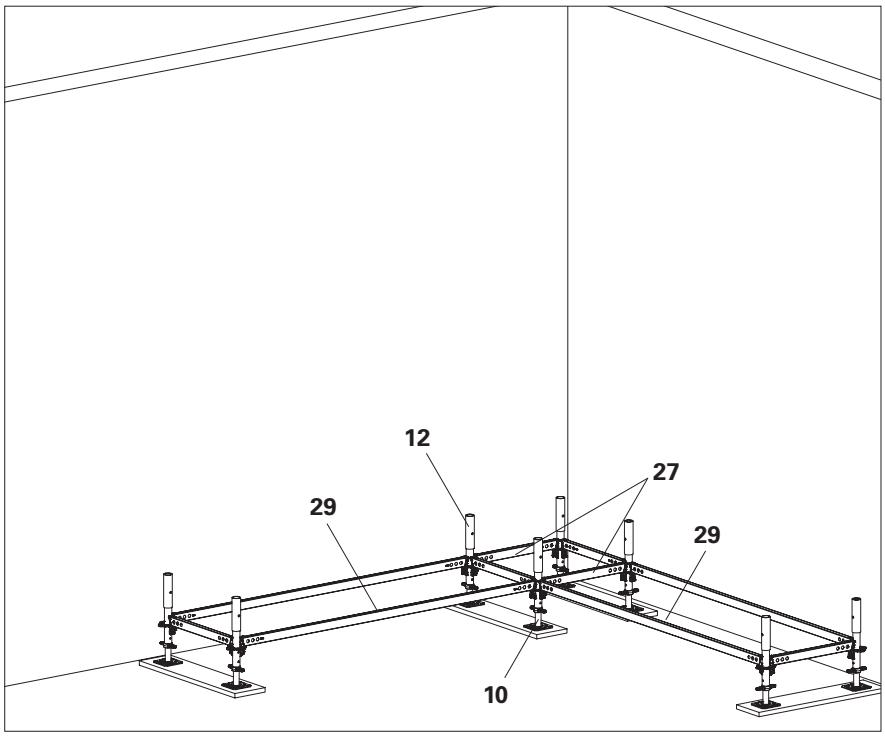


Fig. B6.08

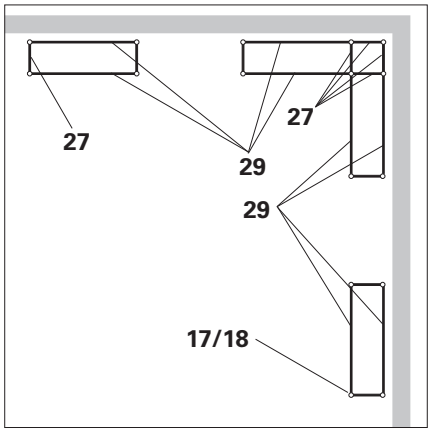


Fig. B6.08a

Arrangement of the Horizontal Ledgers UH-2 (**29**) in the base level.

B6 Corner configuration

First scaffold level

Components

17	Standard UVR-2 200
18	Standard UVR-2 300
27	Horizontal Ledger UH-2 75
29	Horizontal Ledger UH-2 300
59	Guardrail Holder EPW

Assembly

1. Set out the base level using decks (**30**) as an installation aid.
2. Attach three Standards UVR-2 200 (**17**) to the inside corner.
3. Pre-assemble a UVR-2 300 (**18**) with 2 Guardrail Holders EPW (**59**) and fit them. Later on, the guardrail hooks of the guardrail holders will point towards the inner side of the scaffold.
4. Attach Guardrail Post EPG (**51**) for the first scaffold bay (**A**) to the guardrail pin of the standard (**59.1a**) from the level immediately below
5. Hook the other side of the guardrail post onto the standard with the pre-assembled guardrail holder (**59.1b**) and fit it in place. (Fig. B6.09)
6. Fit the guardrail posts for the second scaffold bay (**B**) in the same way.
7. Fit Standards UVR-2 200 (**17**) onto the inner side of the scaffold.
8. Connect standards to the Horizontal Ledgers UH-2 75 (**27**) at the deck height. Hammer all wedges into place. (Fig. B6.10)

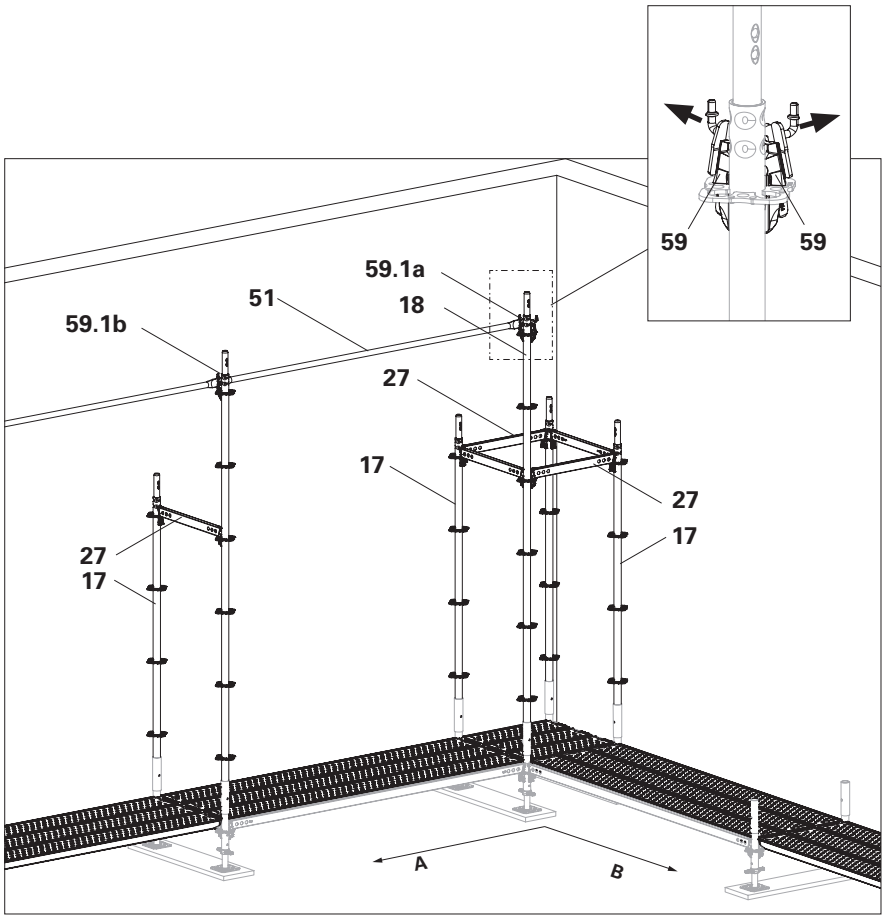


Fig. B6.09

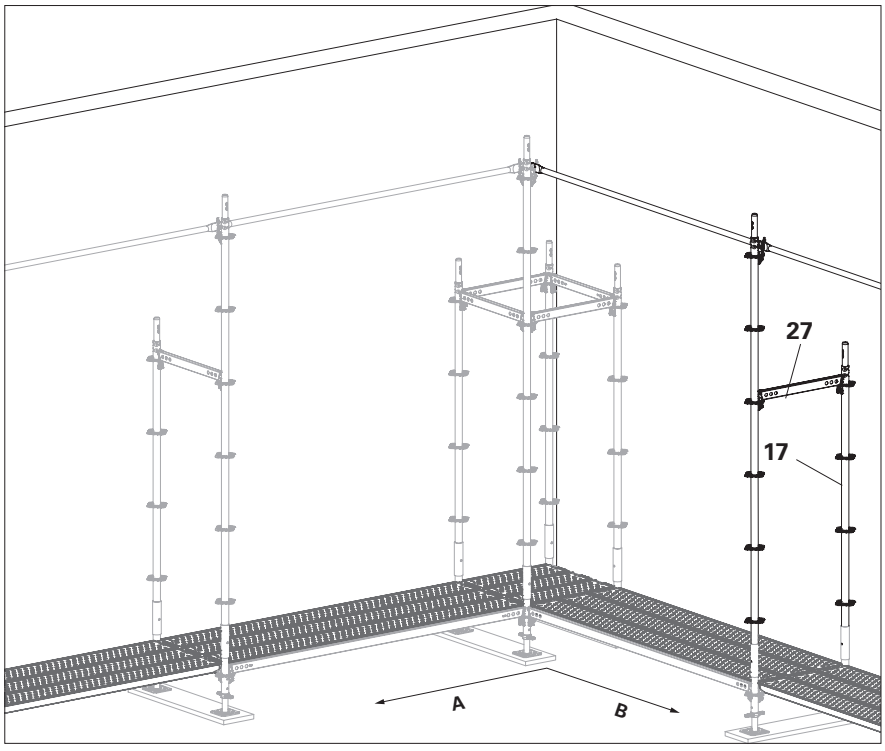


Fig. B6.10

Decks and lateral protection

Components

27 Horizontal Ledger UH-2 75
30 Steel Deck UDG-2 25 x 300
35 Steel Deck UDG-2 25 x 75
51 Guardrail Post EPG
57 Toe Board UPY

Assembly

1. Install decks (**30**) in the first and second scaffold bays.
2. Place three Steel Decks UDG-2 25x75 (**35**) in the inside corner. (Fig. B6.11)
3. Complete the lateral protection with a Horizontal Ledger UH-2 300 (**29**) as an intermediate guardrail and with a toe board (**57**).
4. The assembly decks in the base level can be removed.
5. Fit additional horizontal ledgers (**27**) in the base level at a height of 50 cm, depending on the variant at hand. See Section Tie pattern. Mark the horizontal ledgers as obstacles if the base level decks are not removed.

→ The inside corner is now complete. (Fig. B6.12)

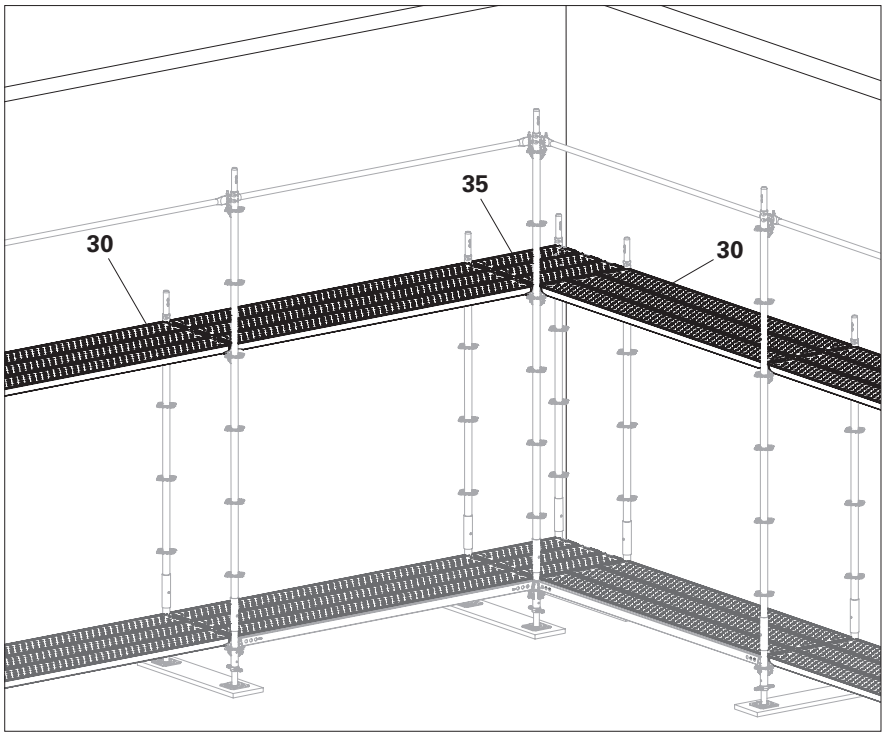


Fig. B6.11

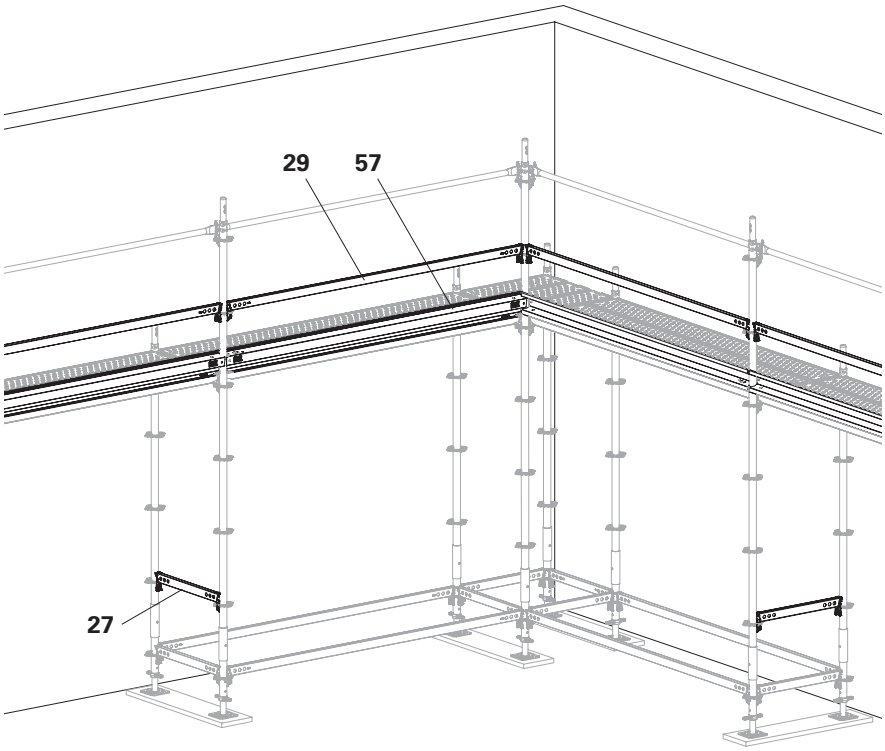


Fig. B6.12

B7 Longitudinal infills

General

- Carry out longitudinal infills in a longitudinal bay. Longitudinal infills in corner areas require project-specific planning.
- Plan the lengths of the adjacent scaffold bays in such a way that the maximum infill length is not exceeded
- Erect the scaffolds to the right and left of the filler area as stand-alone scaffolding. Anchor the edge standards according to the respective tie pattern. (Fig. B7.01)
- Set up the individual scaffolds level by level and connect them using longitudinal infills.

Assembly sequence

1. Secure the edge bays of both scaffolds with End Guardrail in Advance UPA-2.
2. Fit Cover Plate UDB from the scaffold level immediately below, see the following section.
3. Working from the protection of the Advance End guardrail: fit the guardrail and intermediate guardrail, see the following Section.
4. Fit the toe board, see the following section.
5. Remove the end guardrails in advance and install them on the next scaffold level.

* The scaffold system can be adjusted to the required length in increments of 50 cm.

Using the tie patterns
Example arrangement with tie pattern for equipment variation 1a "A"

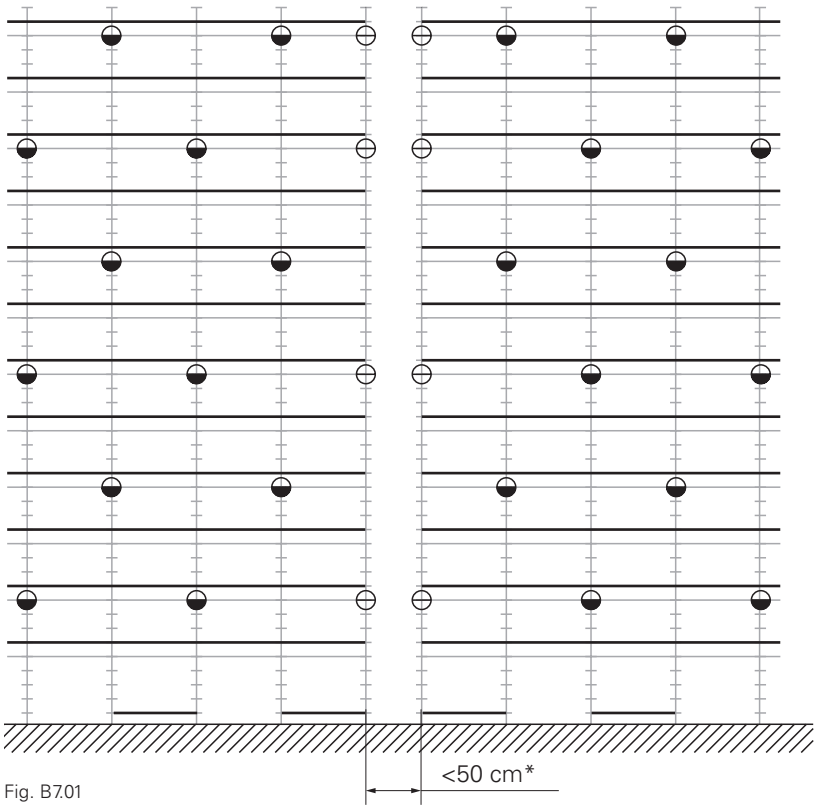


Fig. B7.01

Cover Plate UDB

Cover Plates UDB 20 are available in lengths of 100 and 150 cm.

- As a minimum, support area on both sides: 7.5 cm across entire width
- Max. load class 3 according to EN 12811 (p = 2.0 kN/m²).
- Do not walk on the cover plates until they are screwed securely to the adjacent decks.

Components

26 Horizontal Ledger UH-2
35 Cover Plate UDB 20x100/150
35.1 Truss-head screw M10x60 DIN 603-8.8
35.2 Nut M10-8-VZ-SW17

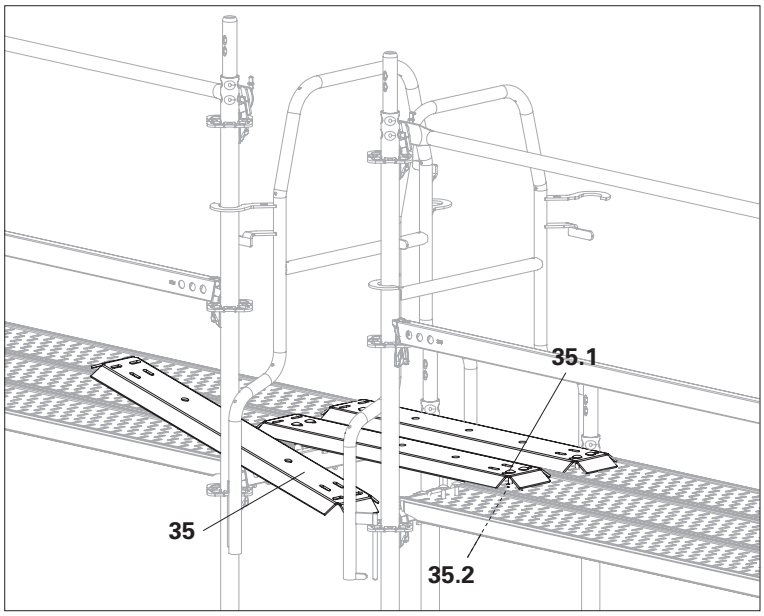


Fig. B7.02

Assembly

1. Completely line the scaffold around the filler area with Decks UDG-2.
2. Place the cover plate (**35**) on the bridging area.
3. Insert the flat round screws M10x60 (**35.1**) through the existing holes or slots from above and tighten with nuts M10-8-VZ-SW17 (**35.2**).
   – Use at least 2 screws per support, therefore 4 per cover plate.
   – The screw connection can be made through any hole or slot. (Fig. A7.02)
4. Mount further cover plates in the same way until the deck gap is closed. (Fig. A7.03)

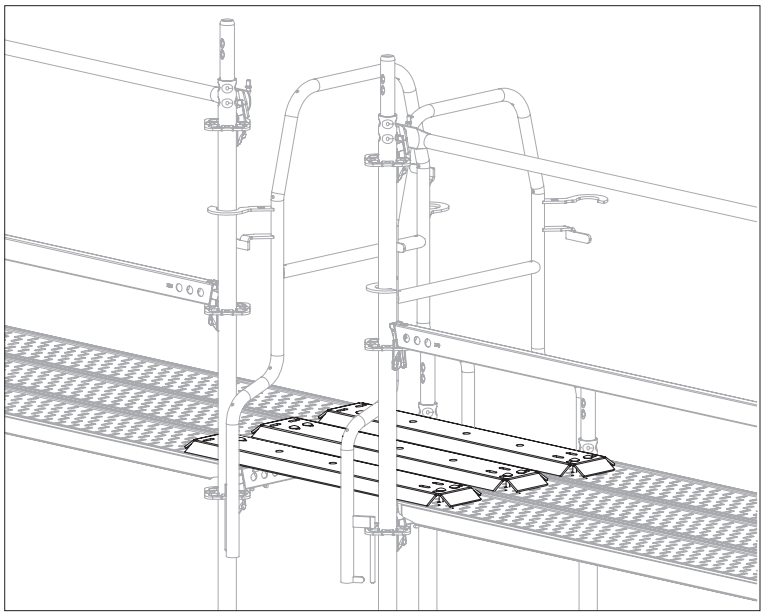


Fig. B7.03

Guardrail Posts

If possible, fit suitable Horizontal Ledgers UH-2 (**26**) in the longitudinal infill. Hammer the horizontal ledger into the rosette on one side. The other side remains free.

Horizontal ledgers up to 75 cm are structurally sufficient as fall protection when hammered in on one side. In all other cases, fit 2 horizontal ledgers in opposite directions. Adhere to the maximum permissible clearance.

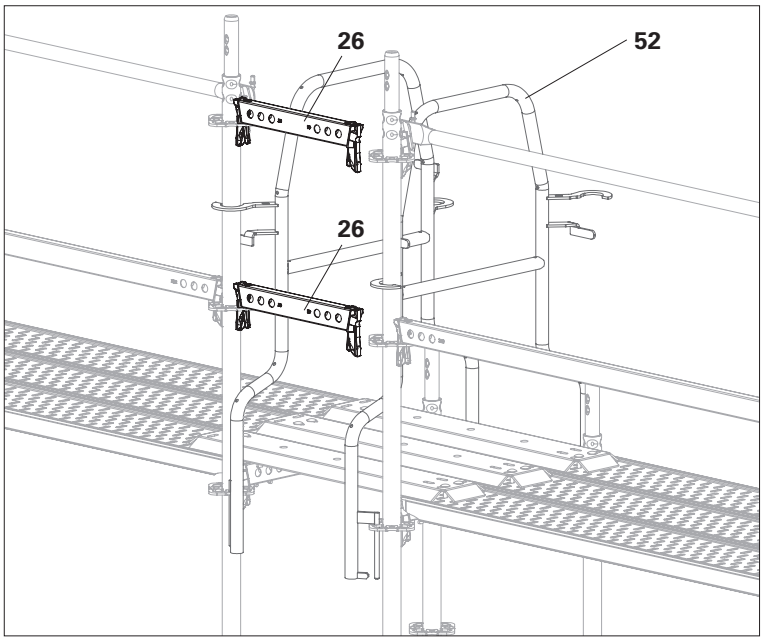


Fig. B7.04

Toe boards

At the longitudinal infill, fit a toe board (**56**) onto the standard by suitable means or screw it to adjacent toe boards (**57**) through the holes provided.

Dismantle the End Guardrail in Advance UPA (**52**) last.

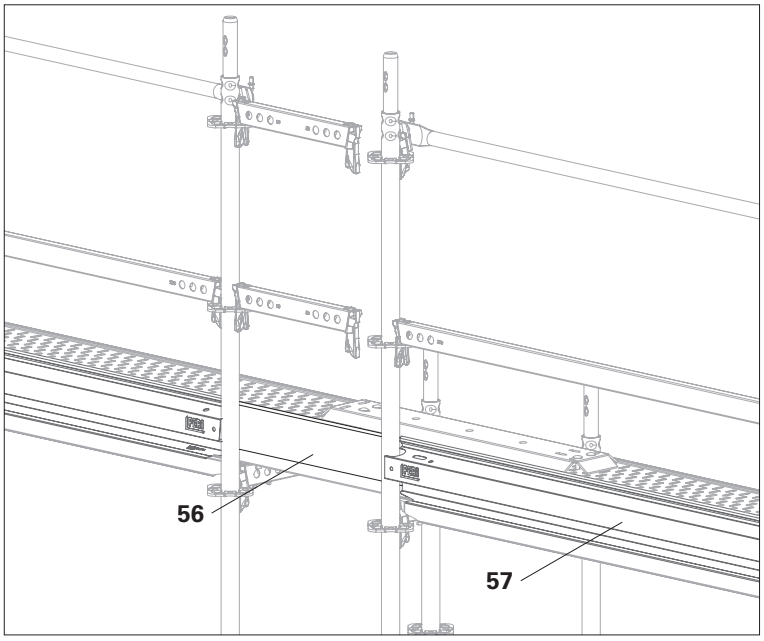


Fig. B7.05

Toe Board Compensation UPY-L

With the Toe Board Compensation UPY-L (**111**) and two Toe Boards UPY (**57**), it is possible to fit a Toe Board that is continuously adjustable in terms of its length. (Fig. B7.06)
Toe Boards with different lengths may be used.

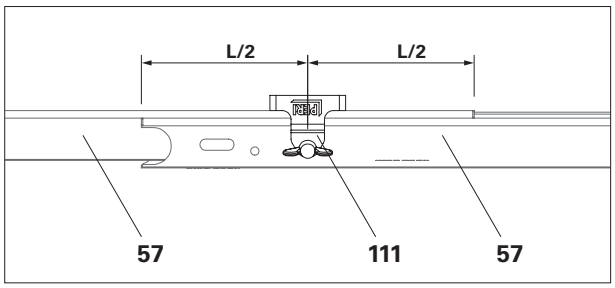


Fig. B7.06

Technical data

- Maximum length: 5.00 m
- Overlap
  - up to length 1 m: L ≥ 20 cm
  - length of 1 m and higher: L≥ 50 cm

Assembly

1. Slide the Toe Board Compensation UPY-L (**111**) onto the first Toe Board UPY (**57**). (Fig. B7.07)
2. Slide the second Toe Board UPY (**57**) between the Toe Board UPY and Toe Board Compensation UPY-L in an overlapping position.
3. Pull the boards to the required length between the standards of the compensation bay.
4. Align the Toe Board Compensation UPY-L centrally at the overlap.
5. Tighten the wing nut.

→ The toe board is installed.
(Fig. B7.08)

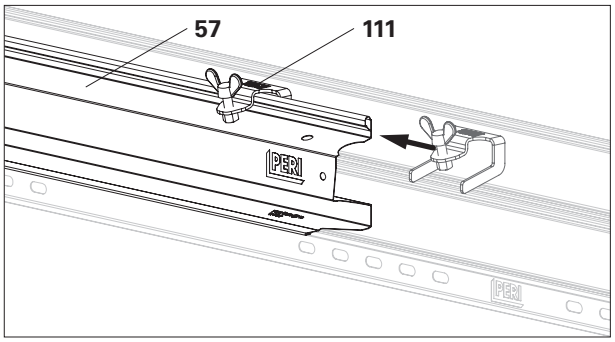


Fig. B7.07

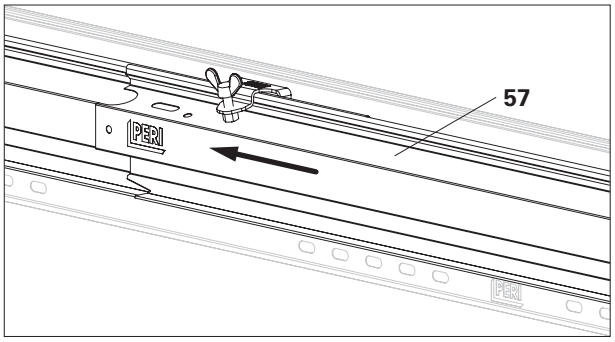


Fig. B7.08

For distances less than 25 cm, screw a wooden board to the inside of the toe boards. Use the existing screw holes in the toe boards. (Fig. B7.08a)
Alternatively, close the gap elsewhere on site.

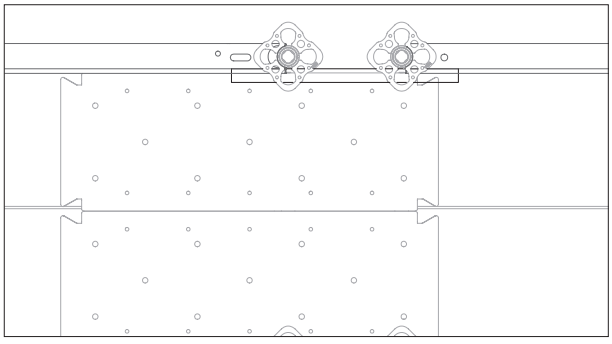


Fig. B7.08a

Cover Plate UDP

Cover Plates UDP (**36**) are available for scaffold widths of 75 cm and 100 cm.

- Max. LC3 in the transition area.
- Create lateral protection in the transition area individually. Use PPE.

Assembly

- From a safe position on the scaffold level immediately below:

1. Connect partial scaffolds at the greater distance with Horizontal Ledger UH-2 (**27**).
2. Thread the Cover Plate UDP (**36**) through the gap and place it between the subframes on top of both deck sides.
3. Pull the wedge (**36.1**) out of the clamping part (**36.2**) and lower the clamping part over the horizontal ledger (**27**).
4. Insert the wedge into the clamping part and hammer it tight.

→ Cover plate is installed. (Fig. B7.09 – B7.09b)

Application examples

- Bridging of scaffolding parts that are not in alignment, e.g. due to the shape of the building.

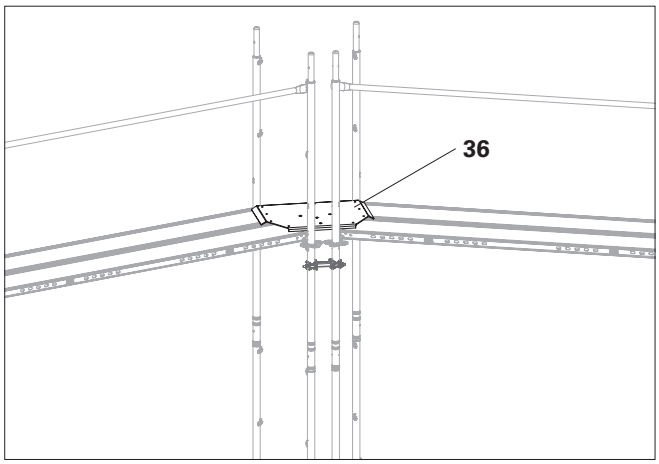


Fig. B7.09

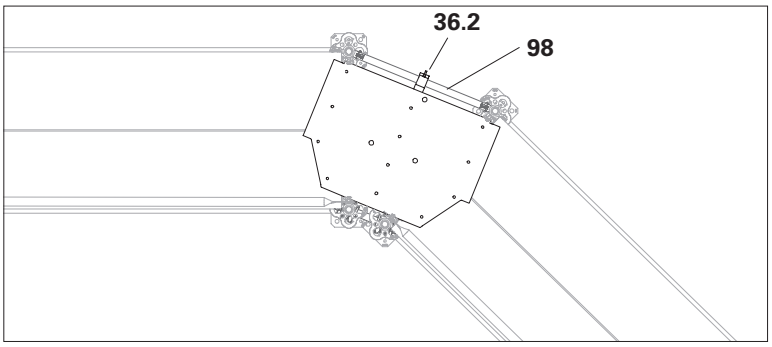


Fig. B7.09a

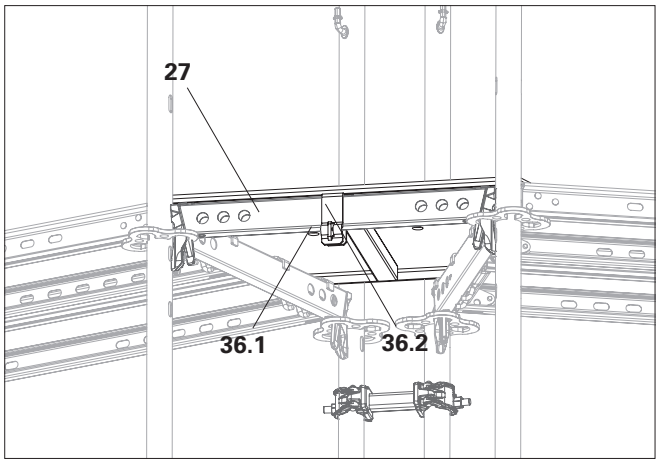


Fig. B7.09b

External access with staircase

- Follow the prescribed assembly sequences!
- The scaffold access grows in line with the basic scaffold.
- If all bays in the basic scaffold are to be >LC3, external access must be fitted.
- Do not set any objects down on the scaffold access.

The staircases are intended for scaffold bays with 2.50 m and 3.00 m widths. Length-determining components, e.g. Horizontal Ledger UH-2, must be selected accordingly.
(Fig. B8.01)

- When erecting the basic scaffold in this bay, the guardrail in advance is assembled last as this will be dismantled again later.

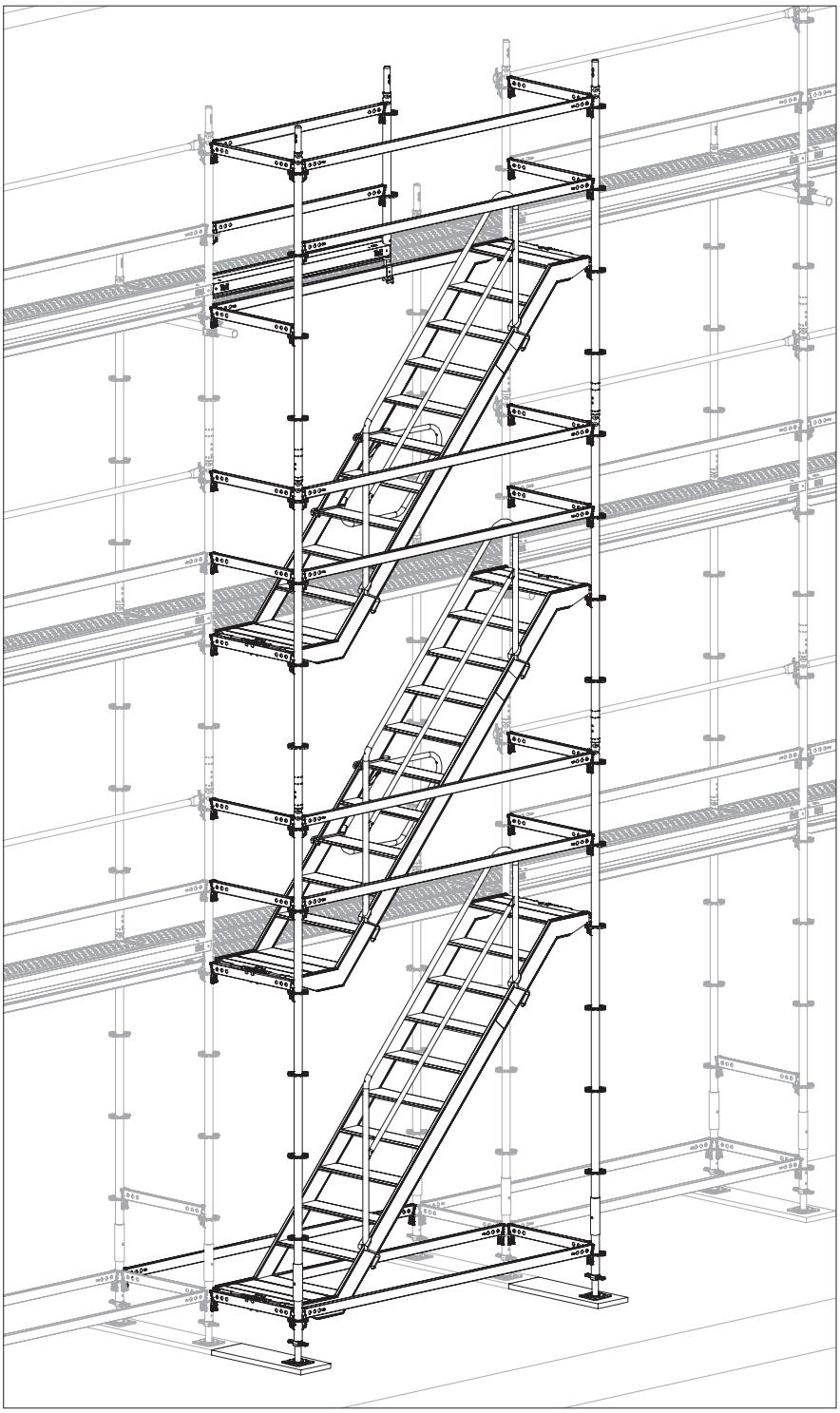


Fig. B8.01

Assembly of the base level

1. Position Base Spindles UJB (**10**) 75 cm apart.
2. Position Base Standards UVB 25 (**12**) on Base Spindles UJB (**10**).
3. Connect Base Standards (**12**) to the basic scaffold with Horizontal Ledgers UH-2 75 (**24**). Do not secure the wedges yet.
4. Connect base standards to the Horizontal Ledger UH-2 (**29**). Do not secure the wedges yet.
5. Horizontally align the base level using a spirit level.
6. Hammer all wedges into place.
7. Insert Steel Decks UDG 25 x 75 (**31**) as assembly decks.

→ The base level is now installed. (Fig. B8.02)

Components

10	Base Spindle UJB
12	Base Standard UVB 25
27	Horizontal Ledger UH-2 75
29	Horizontal Ledger UH-2 300
31	Steel Deck UDG-2 25 x 75

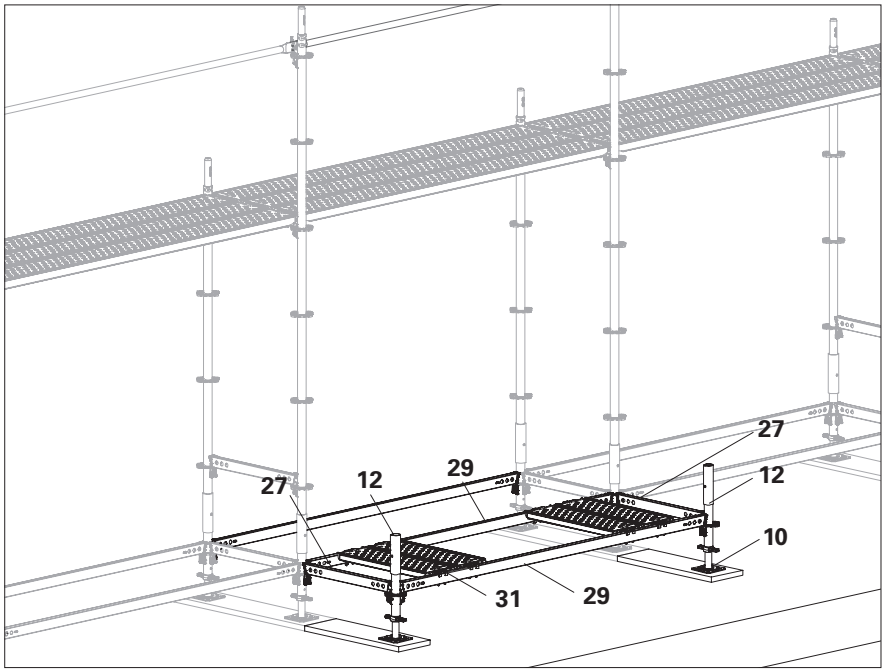


Fig. B8.02

Assembly of the first staircase

Components

18 Standard UVR-2 300
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300
76 Flex Stair UAS-2
77 Stair Guardrail UAG

Pre-assembling the assembly

1. Hook Horizontal Ledgers UH-2 75 (**27**) into the Standards UVR-2 300 (**18**).
2. Fit the assembly a total of 2x.

(Fig. B8.03a).

Assembly

3. Hook the pre-assembled assembly with Horizontal Ledger UH-2 75 (**27**) into the top rosette of the basic scaffold. Insert the Standard UVR-2 300 (**18**) into the Base Standard UVB 25 (**12**).
4. Connect Standards UVR-2 300 (**18**) to Horizontal Ledger UH-2 75 (**27a**) at deck height. Hammer all wedges into place.

(Fig. B8.03)

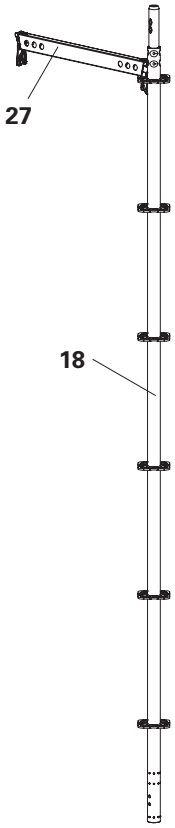


Fig. B8.03a

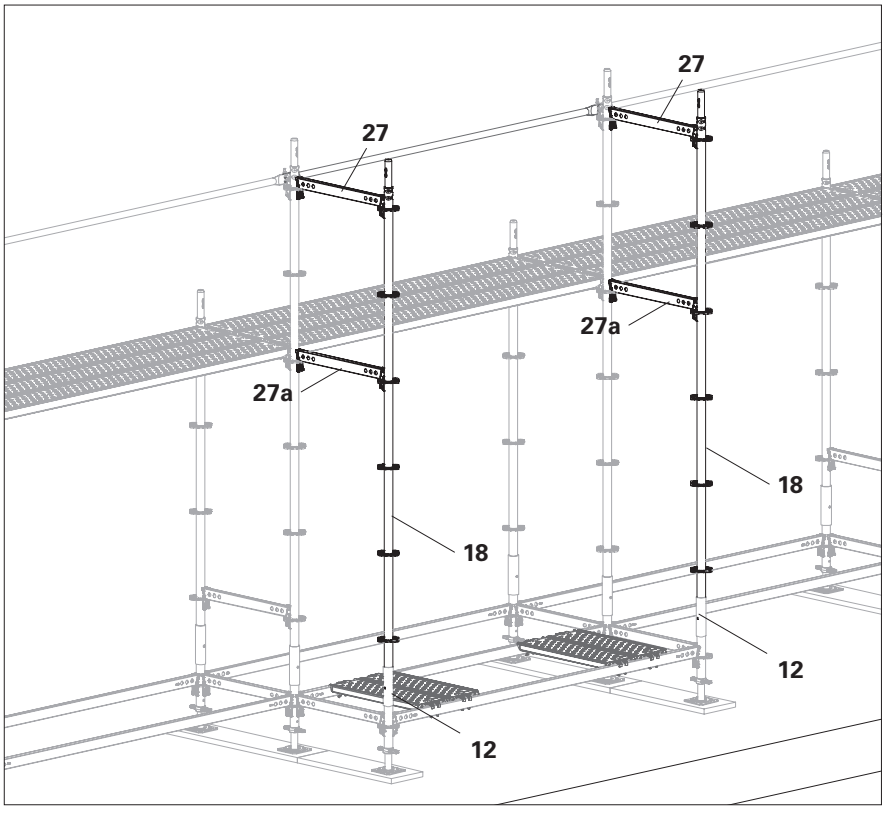


Fig. B8.03

5. Remove the Steel Decks UDG-2 25 x 75 (**31**) in the area of the stair tread.
6. Attach Flex Stair UAS-2 (**76**) firstly to the top Horizontal Ledger UH-2 75 (**27**) and then to the bottom one.
7. Fit Stair Guardrail UAG (**77**) with upper suspension above the second step from the top.
8. Remove the remaining Steel Decks UDG 25 x 75 (**31a**).

(Fig. B8.04)

Have both lift locks (**76.1**) of the staircase dropped beneath the crossbar? If not, lift the staircase slightly and let it drop into position or operate the lift lock manually.
(Fig. B8.04a)

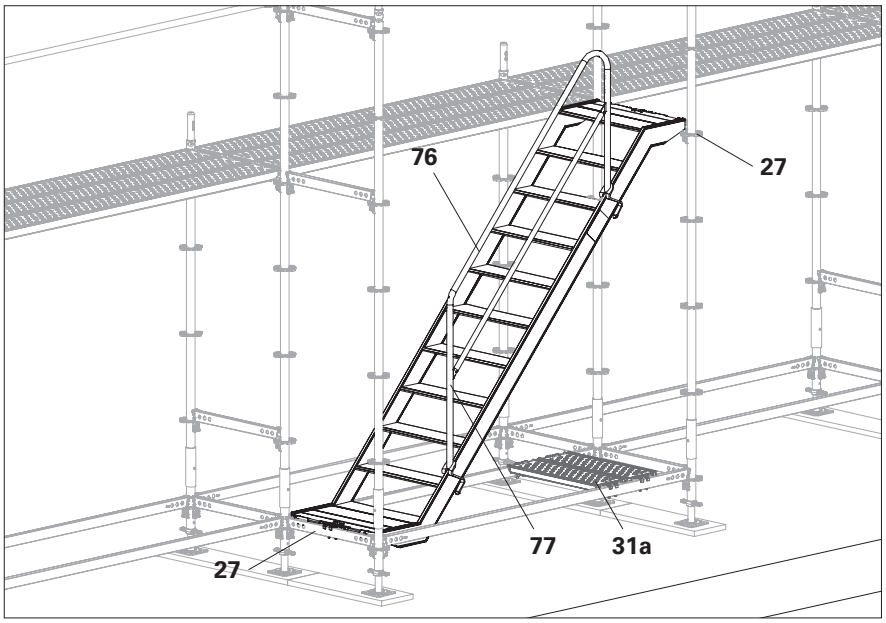


Fig. B8.04

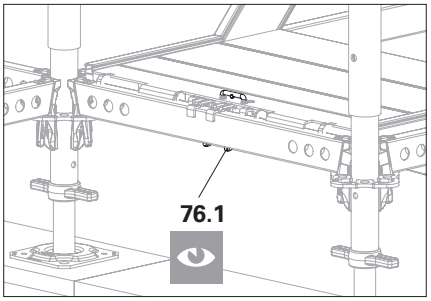


Fig. B8.04a

Guardrails

- Always carry out assembly from a safe workplace.
- The guardrail post (**51**) of the basic scaffold remains in place until the next stair level is installed.
- To access the upper scaffold level, detach the guardrail post (**51**) on the side of the stair exit, enter the scaffold level and then reattach it straight away.

Components

27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300

Assembly

1. Hook Horizontal Ledgers UH-2 300 (**29**) into the Standards UVR-2 300 (**18**) as lateral protection.
2. Fit the Horizontal Ledger UH-2 75 (**27**) onto the front sides of the staircase as a knee rail.
3. Hammer all wedges into place. (Fig. B8.05)

→ The first staircase is now installed.

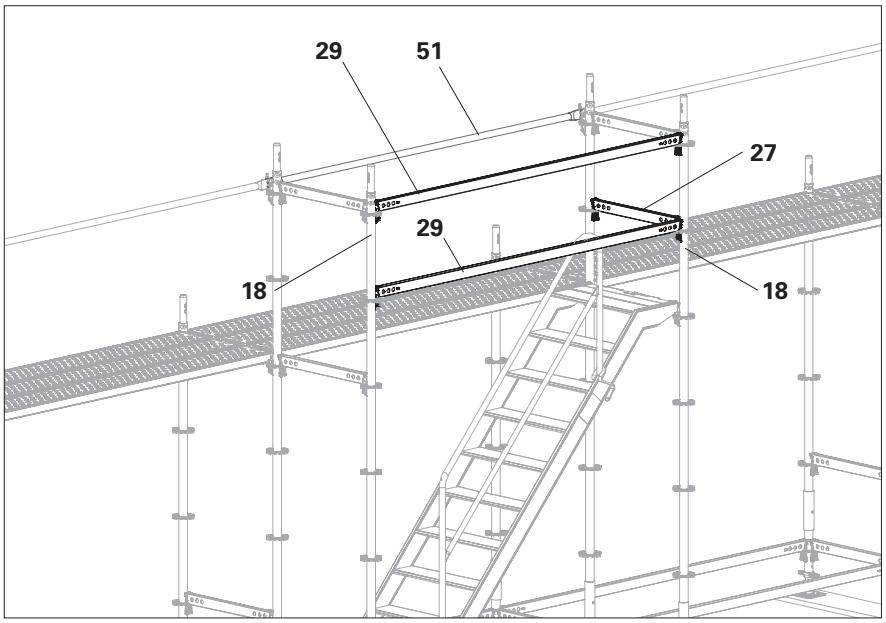


Fig. B8.05

Install another staircase.

Before installing the next staircase, add another level to the basic scaffold.

Components

17 Standard UVR-2 200
27 Horizontal Ledger UH-2 75
29 Horizontal Ledger UH-2 300
76 Flex Stair UAS-2
77 Stair Guardrail UAG
78 Stair Guardrail UAH-2

Pre-assembling the assembly

1. Hook Horizontal Ledgers UH-2 75 (**27**) into the Standards UVR-2 200 (**17**). Pre-assemble the assembly 2x. (Fig. B8.06a).

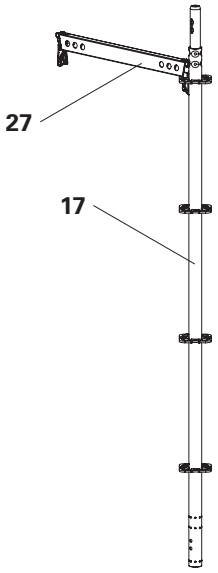


Fig. B8.06a

Assembly

2. Hook the first pre-assembled assembly with Horizontal Ledger UH-2 75 (**27**) into the top rosette of the basic scaffold. Insert the Standard UVR-2 200 (**17**) into the Standard UVR (**18**).
3. Connect Standards UVR 200 (**17**) with Horizontal Ledgers UH-2 75 (**27a**) to the basic scaffold. Secure the wedges.

(Fig. B8.06)

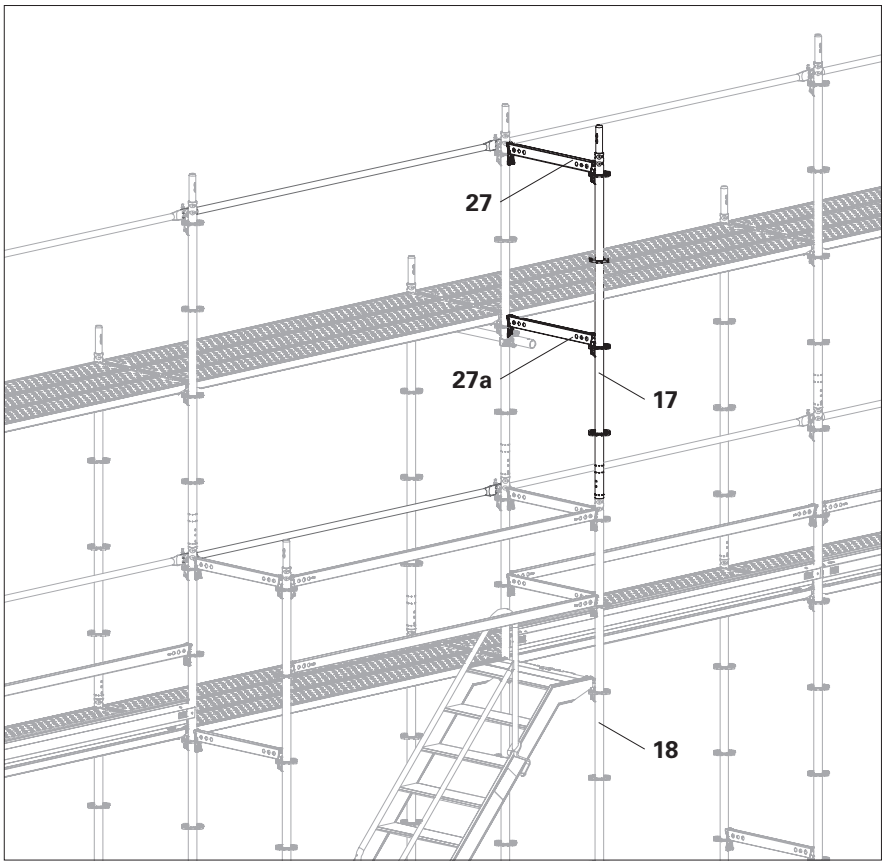


Fig. B8.06

4. Attach Flex Stair UAS-2 (**76**) firstly to the top Horizontal Ledger UH-2 75 (**27**) and then to the bottom one.
5. Fit Stair Guardrail UAG (**77**) with upper suspension above the second step from the top.
6. Fit Stair Guardrail UAH-2 (**20**) with upper suspension above the fifth step from the top. (Fig. B8.07a)
7. Hook the second pre-assembled assembly with Horizontal Ledger UH-2 75 (**27a**) into the top rosette of the basic scaffold. Fit the Standard UVR-2 200 (**17**) onto the Standard UVR-2 (**18**).
8. Connect Standard UVR-2 200 (**17**) with Horizontal Ledgers UH-2 75 (**27b**) to the basic scaffold. Secure the wedges.
9. Hook two Horizontal Ledgers UH-2 300 (**29**) into the Standards UVR-2 200 (**17**). Hammer all wedges into place. (Fig. B8.07)
10. Remove the guardrail post (**51**) of the basic scaffold. (Fig. B8.07a)

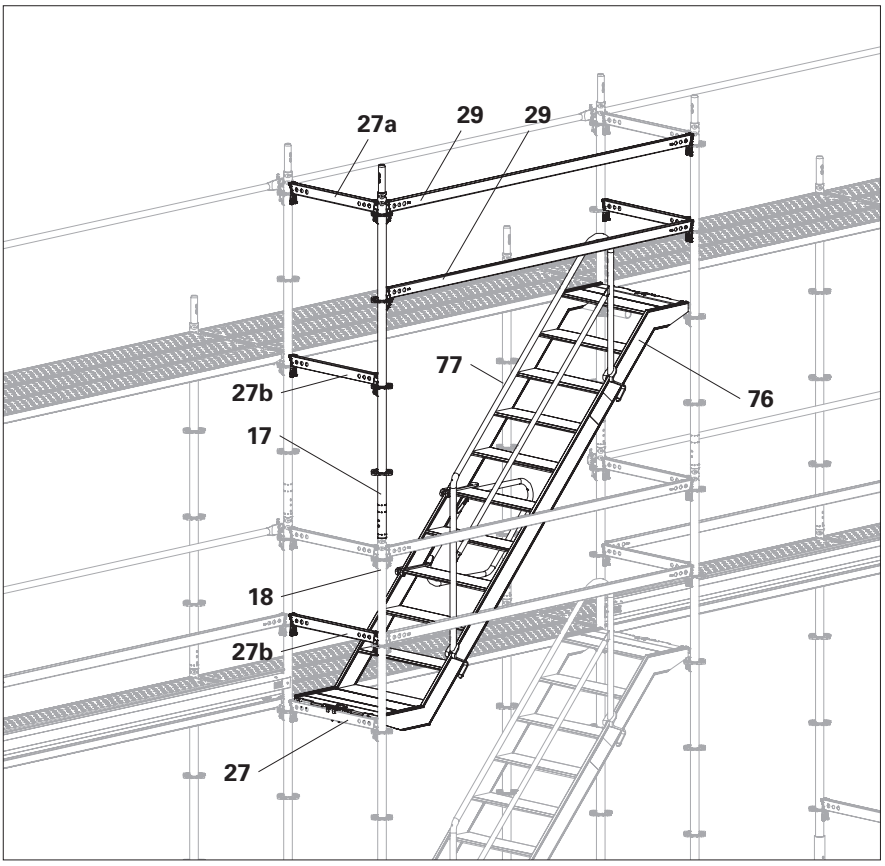


Fig. B8.07

Have both lift locks (**76.1**) of the staircase dropped beneath the crossbar?

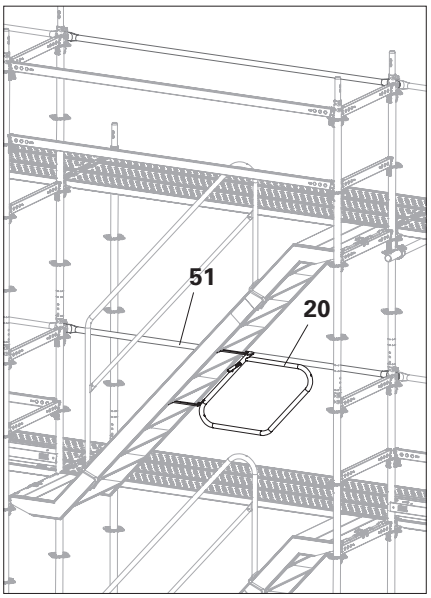


Fig. B8.07a

Top staircase
Assemble the uppermost staircase in the same way as an additional staircase.

Guardrails
1. Prior to installing the deck on the top level of the basic scaffold, fit a Horizontal Ledger UH-2 (**29**) onto the outer side.
2. Attach the UH Spigot-2 (**93**) to the horizontal ledger so that the wedge can be secured from the outside. (Fig. B8.08a)
3. Fit a Standard UVR-2 100 (**15**) onto UH Spigot-2.
4. Fit Horizontal Ledger UH-2 between standards (**15**) and (**17**).
   – For bay length 250 cm: Horizontal Ledger UH-2 150 (**24**),
   – For bay length 300 cm: Horizontal Ledger UH-2 200 (**25**).
5. Align UH Spigot-2 (**93**) and secure the wedge. (Fig. B8.08 + B8.08a)
6. Complete the lateral protection in the basic scaffold: Fit horizontal ledgers (**24a/25a**) as intermediate guardrails as well as Toe Boards UPY (**57**). (Fig. B8.09)

→ The top staircase is now installed.

For exit width 75 cm:
7. Pre-assemble two Horizontal Ledgers UH-2 25 (**26**) on a Standard UVR-2 100 (**15a**).
8. Hook the assembly (**15a + 26**) with the horizontal ledgers (**26**) into the standard (**15**). Secure the wedges. (Fig. B8.09a)

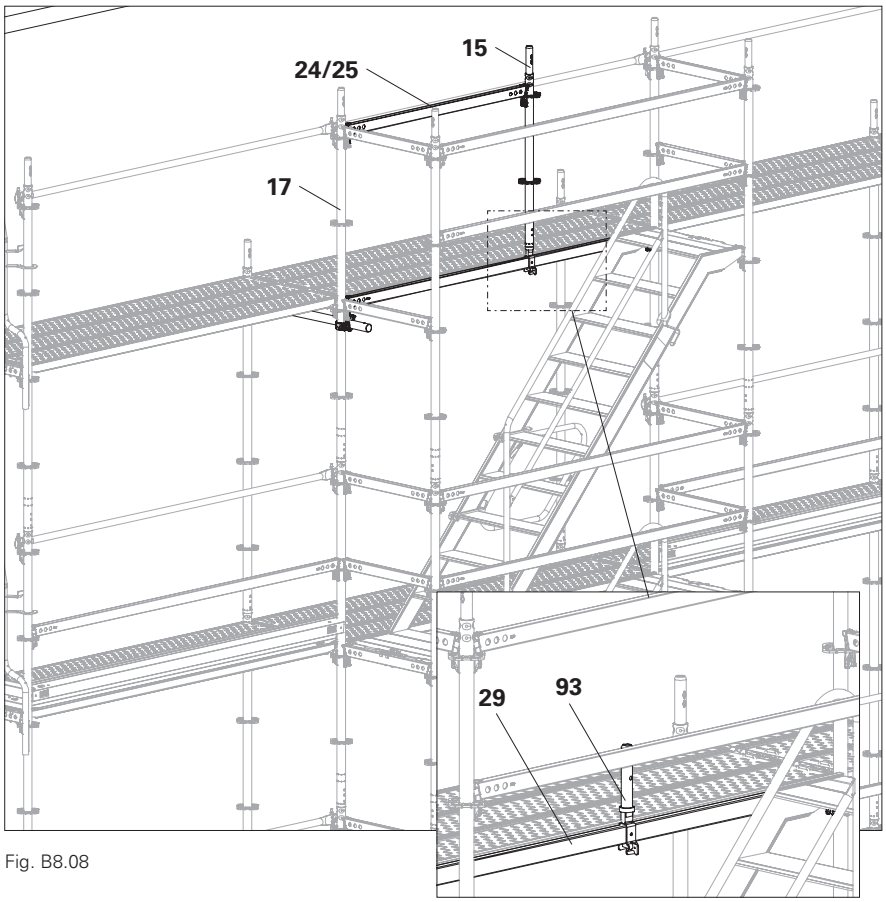


Fig. B8.08

Fig. B8.08a

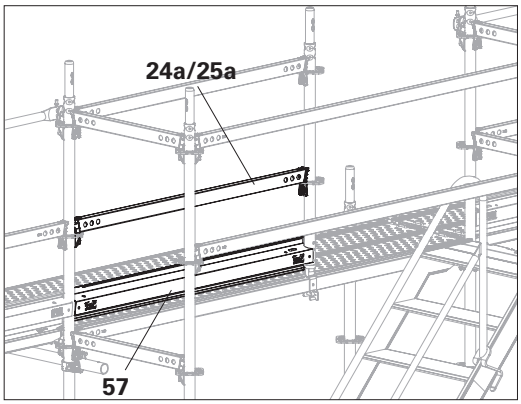


Fig. B8.09

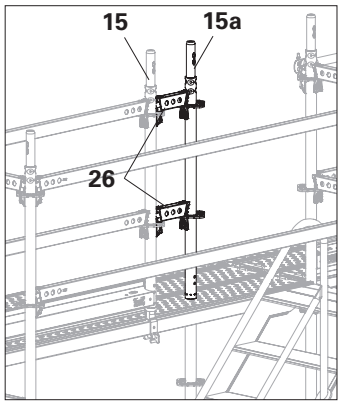


Fig. B8.09a

Internal access with access deck

For bay lengths of 2.50 m and 3.00 m, install the Access Decks EAW-2-L, EAC-L or EAA-L (**40**) (with attached access ladder) in the basic scaffold. For 2.00 m bay lengths, install the Entry Platform EAW-2 200, EAC 200 or EAA 200 and Ladder UAF.

- For system width 100, a front-mounted stair tower must be fitted.
- Internal access using access decks is possible up to Load Class 3 (LC3).
- When not in use, the access hatches must remain closed!

Warning

Open access hatches pose a risk of falling.

⇒ Arrange the access openings alternately!

Caution!

Body parts can become trapped by self-closing access hatches.

⇒ The self-closing hatch should be firmly held during use!

⇒ Take into consideration any other persons waiting to use the hatch!

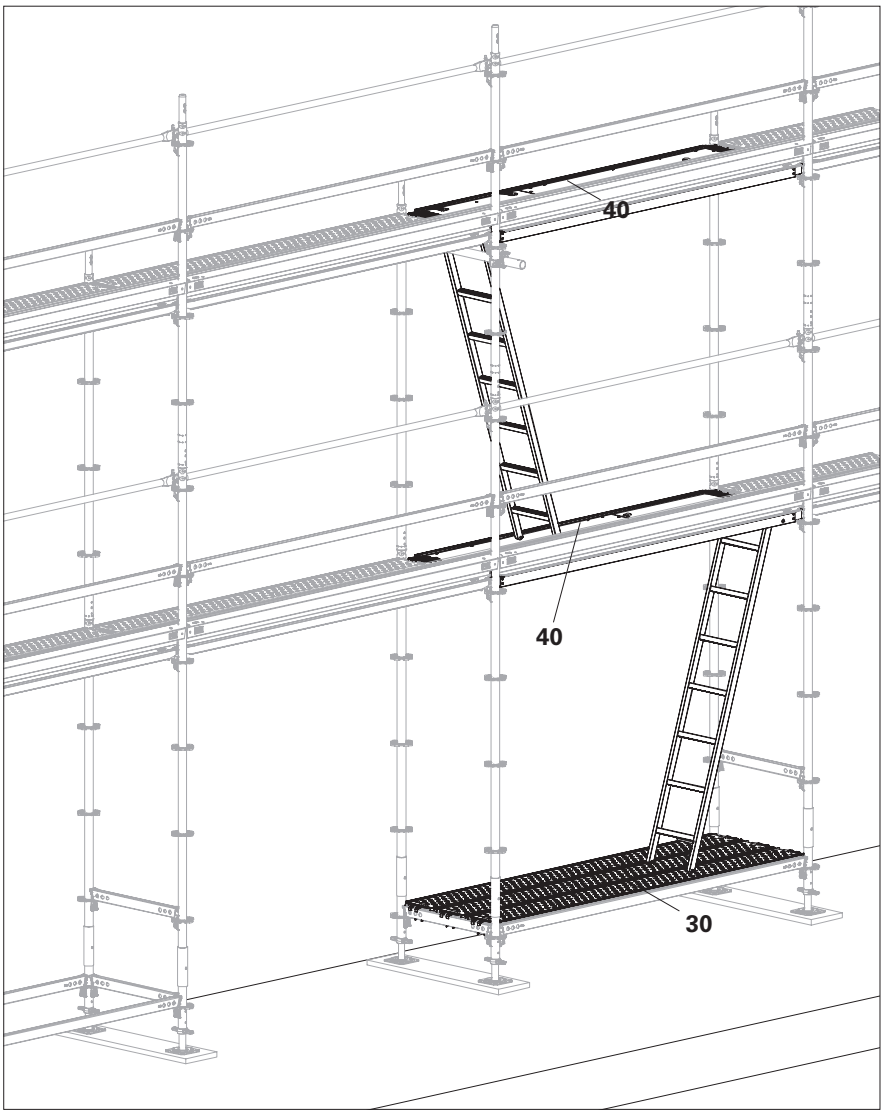


Fig. B8.10

Assembly

1. Fit Decks (**30**) onto the bottom level as a basis for the first ladder.
2. In the following scaffold levels in this bay, install an access deck (**40**) instead of the deck.

→ Access deck is installed.
(Fig. B8.11)

For deck variants, see Section "A4 System components: Deck" on page 32.

Components

30 Steel Deck EDS
40 Access Deck EAW-L

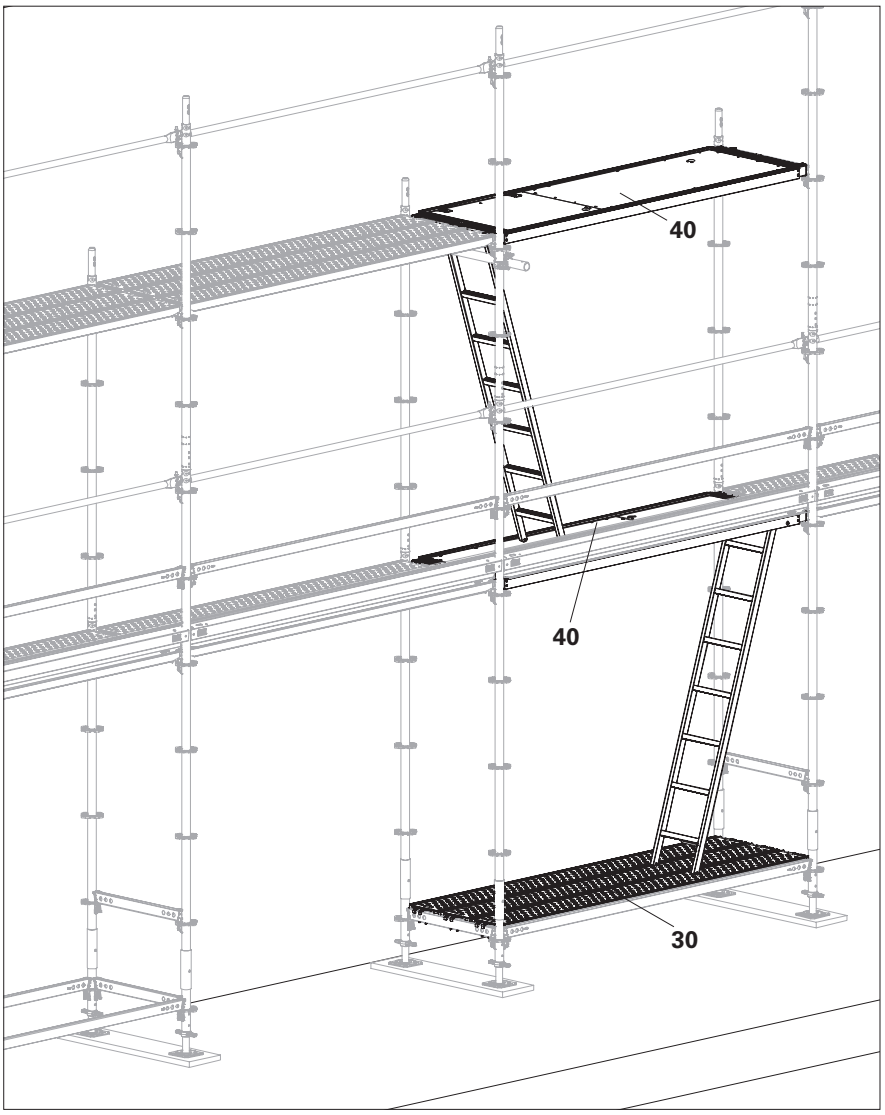


Fig. B8.11

C1 Console brackets

General

- For the permissible Load Classes, see Section "A6 System components: Console brackets" on page 38.
- Additional anchoring is required to mount the console brackets, see the Section Tie pattern.

Internal console brackets

The following supports can be installed simultaneously on all scaffold levels as internal console brackets. Steel Decks UDG-2 (**30**) are installed as decks.

The following supports are used:
- Supports UC 25* (**61**),

Furthermore, the following may be used on all scaffold levels:
- Console Brackets UCB 25 (**62**)

Supports and console brackets are attached to rosettes of the Standards UVR (**17**) or to the Top Standards UVH (**20**) on the top scaffold level.

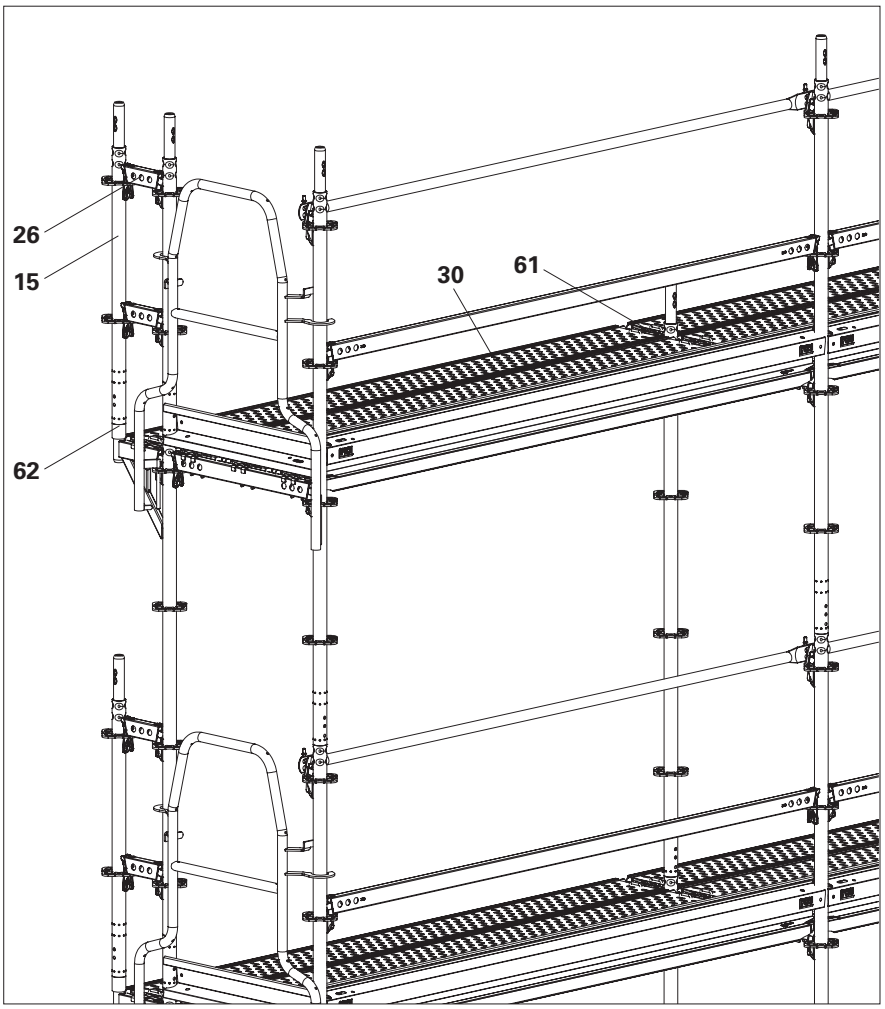


Fig. C1.01

Assembly

1. Fit Console Bracket UCB 25 (**62**) onto the edge frame column with pre-assembled Standard UVR-2 100 (**15**). (Fig. C1.02 + C1.02a)
2. Fit Support UC 25* (**61**) or Console Brackets UCB 25 onto the middle frame. (Fig. C1.03)
3. Insert Steel Decks (**30**).
4. Fit Horizontal Ledger UH-2 25 (**26**).

→ The console brackets are now installed.

(Fig. C1.02)

To assemble an inner guardrail, fit Console Brackets UCB (**62**) with standards (**15**) instead of Supports UC 25 (**61**). (Fig. C1.03a + C1.03b)

Components

30	Steel Deck UDG-2
15	Standard UVR-2 100
26	Horizontal Ledger UH-2 25
29	Horizontal Ledger UH-2 300
61	Support UC 25*
62	Console Bracket UCB 25

* Only permissible up to load class 3 or after separate structural analysis.

Edge frame column with Console Bracket UCB 25

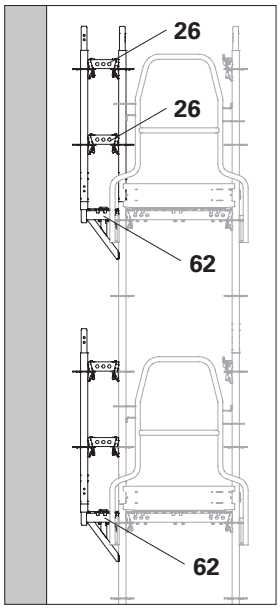


Fig. C1.02

Middle frame column with Support UC 25*

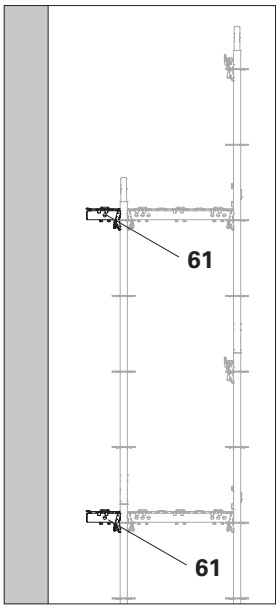


Fig. C1.03

Middle frame column with Console Bracket UCB 25 and standard

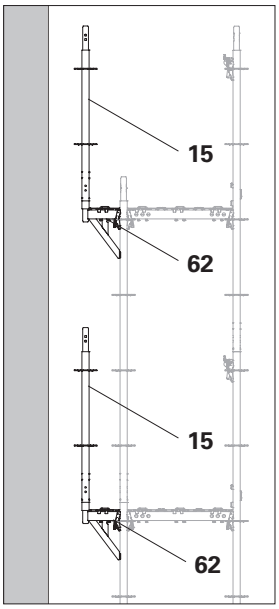


Fig. C1.03a

Edge frame column Middle frame column

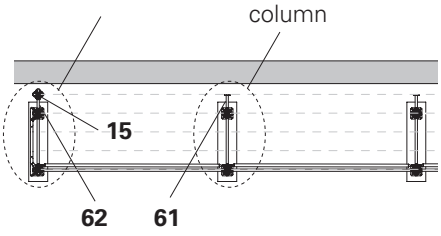


Fig. C1.02a

Alternatively: with inner guardrail (**51**).

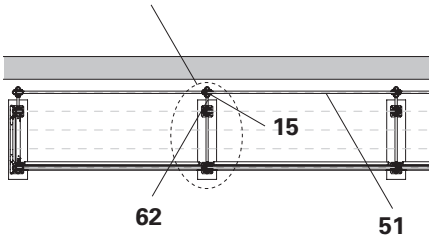


Fig. C1.03b

Anchoring with ETICS

In accordance with standards DIN EN 12811-1 and DIN EN 12810-1, scaffolds must be designed to accommodate forces parallel to the facade as well. The load-bearing capacity of eyebolts for forces parallel to the facade approaches zero as the shaft length increases.
The following measures are suitable for accommodating these forces:

- permanent anchoring
- ETICS special scaffold tie

With PERI UP Flex, additional measures are possible:

- Structural scaffold bracing
- Free-standing scaffold

Structural scaffold bracing
This can be done, for example, by installing diagonals on the inside and/or outside of the scaffold. (Fig. C1.04)

Free-standing scaffold
Scaffolds that cannot be anchored require a larger erection surface and, if necessary, additional ballasting. See Section "Scaffolding support" on page 155. (Fig. C1.04a)

For a structurally braced or free-standing scaffold, separate static proof of stability is required.

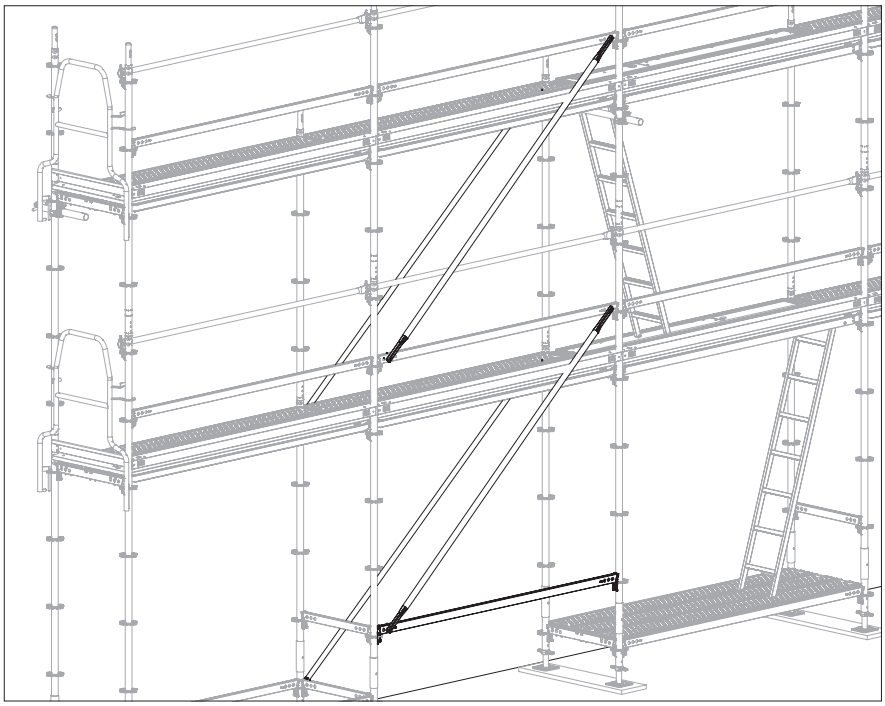


Fig. C1.04

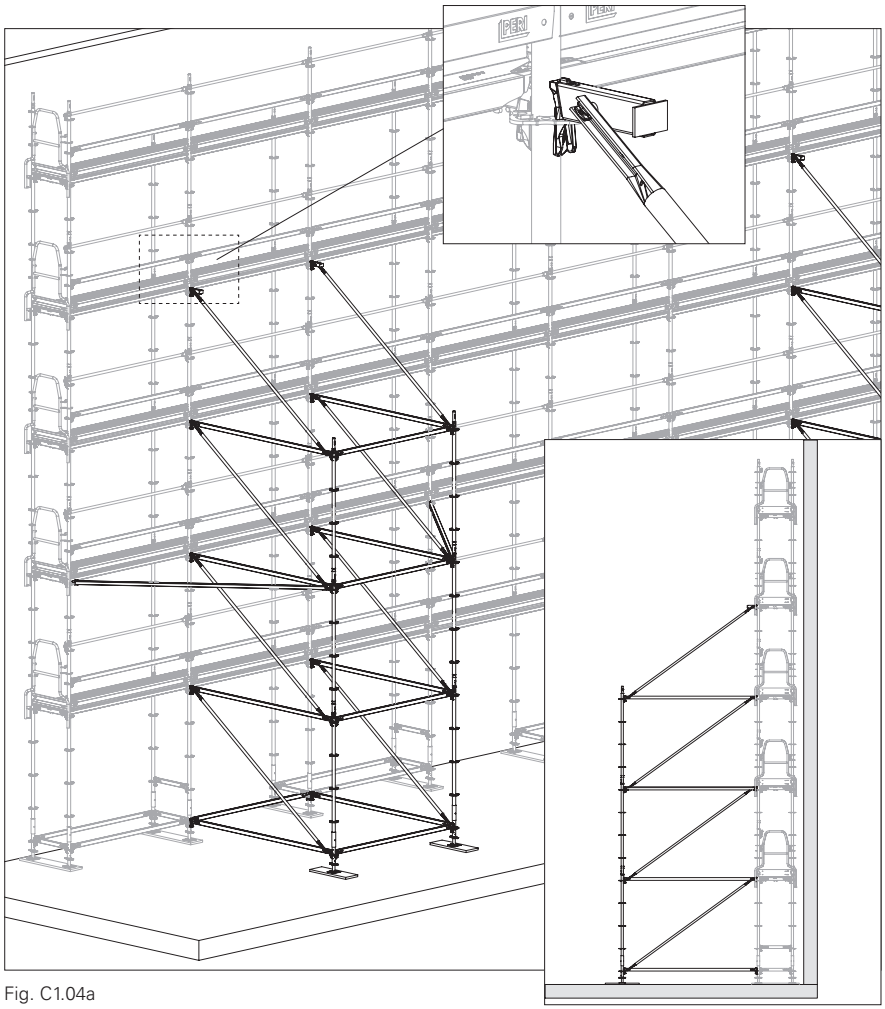


Fig. C1.04a

External corner with internal console brackets

The internal console brackets can be installed at the same time on all scaffold levels.
Assemble the basic scaffold in the manner detailed in Section "Outside corner" on page 64. Take into consideration additional space requirements for supports or console brackets on both scaffold bays.

Take additional anchoring for internal console brackets into account, see Section Tie pattern.

Components

18 Standard UVR-2 300/200
26 Horizontal Ledger UH-2 25
29 Horizontal Ledger UH-2 300
30 Steel Deck UDG-2
61 Support UC 25
90 Ledger-to-Ledger Coupler UHA-2

Assembly

1. Fit an additional standard (**18**) onto the first frame column of the adjoining scaffold bay and connect it to the base scaffold with Horizontal Ledgers UH-2 25 (**26**).

Alternatively, for Flex 75:
Erect the first frame column of the adjoining scaffold bay in such a way that it is 25 cm wider.

2. Attach Supports UC 25 (**61**) to the rosette from the scaffold level below. Secure the wedges!
Arrangement in accordance with Fig. C1.05.
3. Attach Ledger-to-Ledger Coupler UHA-2 (**90**) to the Horizontal Ledger UH-2 (**29**).
4. Fit Horizontal Ledger UH-2 (**29a**) onto the Ledger-to-Ledger Coupler UHA-2 (**90**) and standard (**18**) in the adjacent scaffold bay. Secure the wedges. (Fig. C1.05)

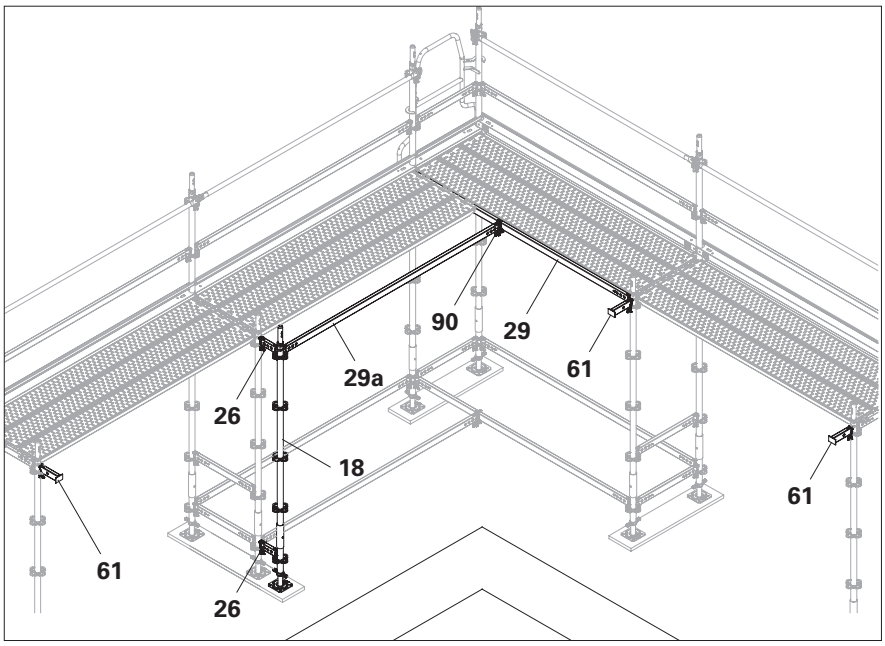


Fig. C1.05

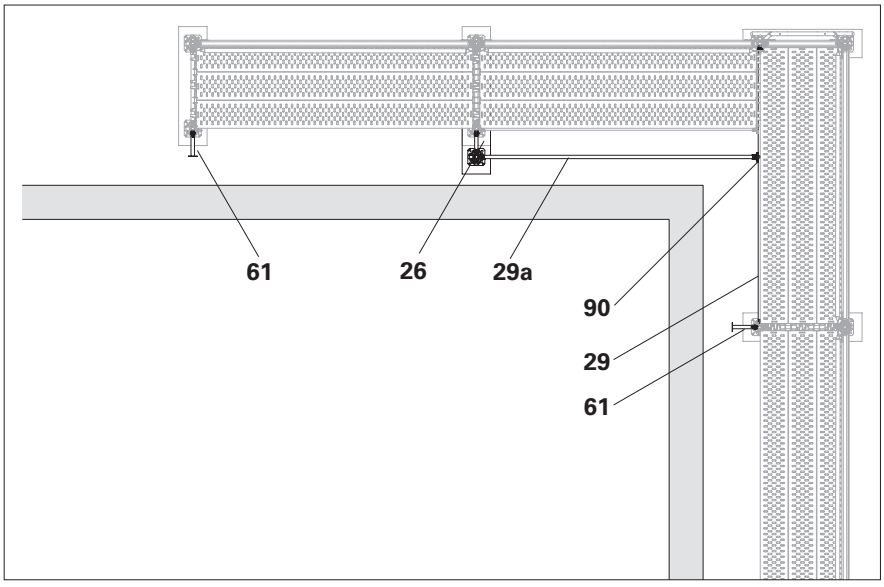


Fig. C1.05a

5. Attach Steel Decks UDG-2 25 (**30+ 30a**).
→ The external corner with internal console brackets is now installed.
(Fig. C1.06)

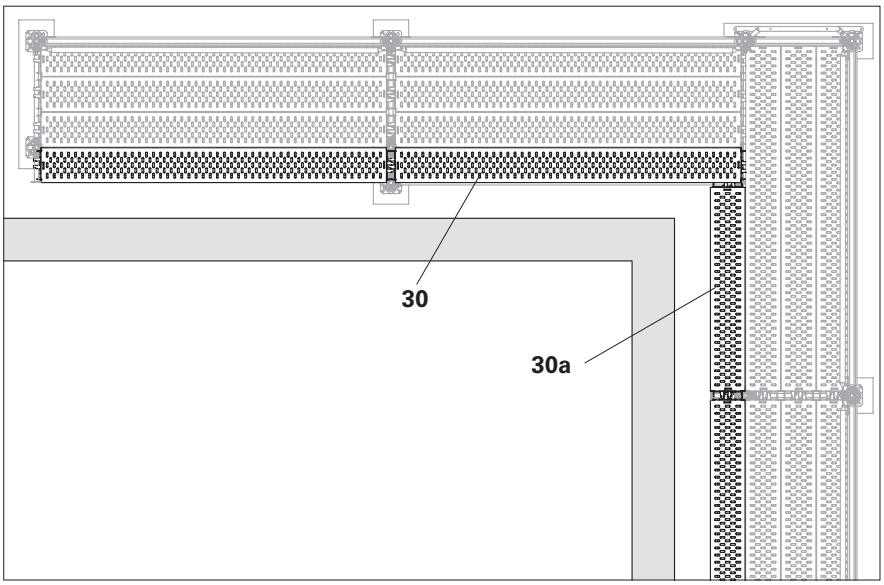


Fig. C1.06

With scaffold width 100 cm:
Fit an additional Support UC 25 (**61**) onto the horizontal ledger (**29**) with Ledger-to-Ledger Couplers UHA-2 (**90**).

- For a bay length of 3 m, install a deck with a length of 100 cm and a deck with a length of 75 cm (**31**).
- For a bay length of 2.5 m, install a deck with a length of 50 cm and a deck with a length of 75 cm.

(Fig. C1.07 + C1.08)

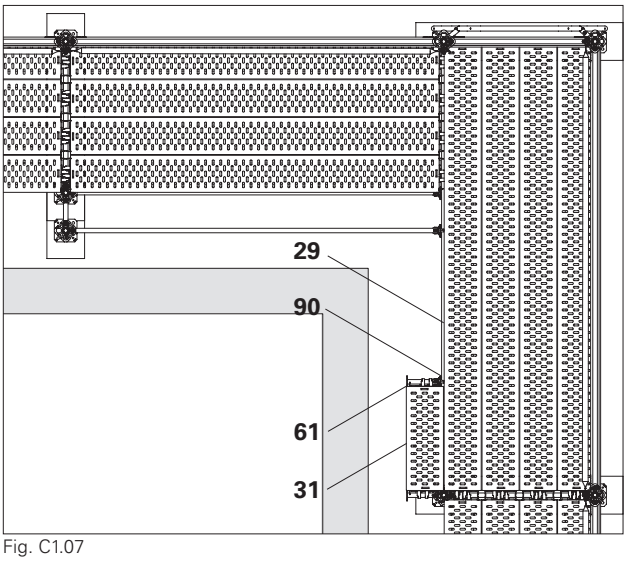


Fig. C1.07

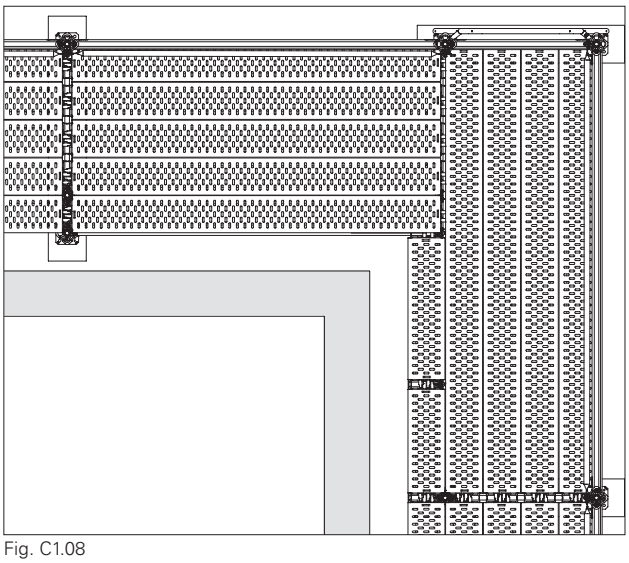


Fig. C1.08

Console brackets at inside corners

Internal scaffolding corners must be realised ensuring that no openings are created.
Fit an Inside Corner Plate EDP (**34**) for the remaining internal corner
(Fig. C1.09 – C1.11)

- The Inside Corner Plates EDP can be used for internal console bracket widths of 25 cm
- max. load class 4 according to EN 12811 (p = 3.0 kN/m²)

Assembly

- From a safe position on the scaffold level immediately below:

1. Fit console brackets or supports on the inner side of the scaffolding.
2. Place the Inside Corner Plate EDB (**34**) next to the adjacent console bracket decks.
3. Push the bolts of the Inside Corner Plate EDP (**34.1**) up.
4. Push the inside corner plate towards the standard and slide the standard mounting cone over the rosette.
5. Push the bolt into the hole of the rosette until it fully engages.
   → The deck is now fixed in position

→ The inside corner with internal console brackets is now installed.
(Fig. C1.09)

Is the bolt securely engaged in the rosette?

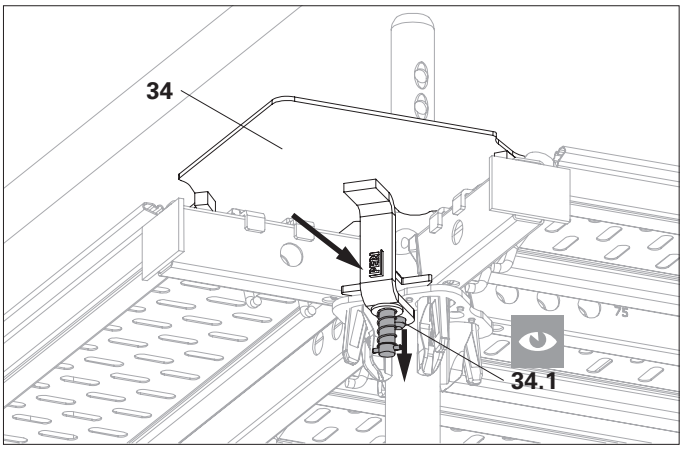


Fig. C1.09

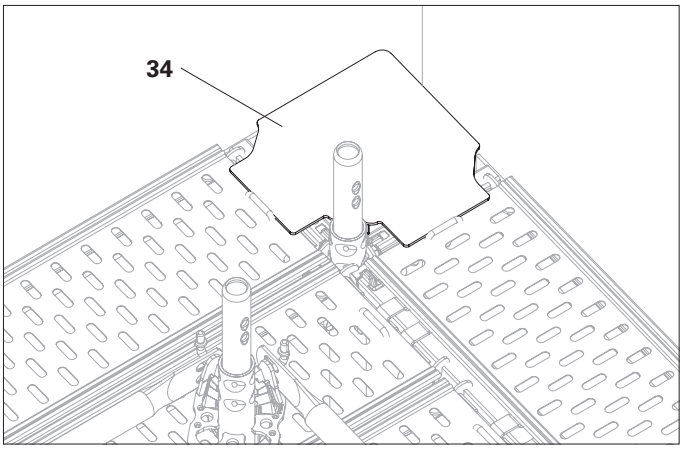


Fig. C1.10

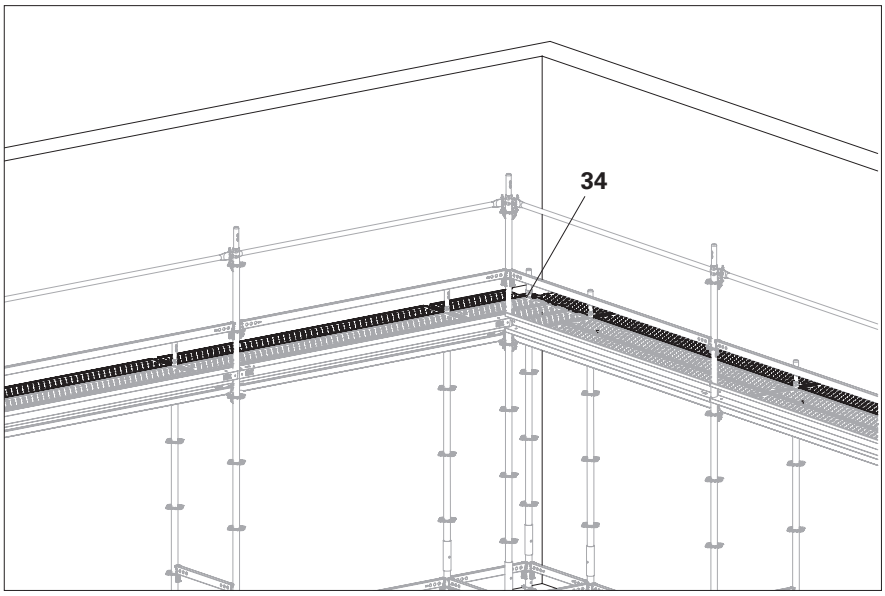


Fig. C1.11

C2 Protection panel

General

Protection panels with safety nets (in Europe, e.g. according to DIN EN 1263) are installed on Guardrail Posts EPG in the top scaffold level.

- Note additional anchoring, see Section Tie pattern.
- For the permissible Load Classes, see Section "A6 System components: Console brackets" on page 38.
- Securely connect all frame columns in the top three levels to the outer and inner legs using locking pins (**80**).

Protection panel on the base scaffold

Components

15 Standard UVR-2 100
16 Standard UVR-2 150
17 Standard UVR-2 200
26 Horizontal Ledger UH-2 25
29 Horizontal Ledger UH-2 300
30 Steel Deck UDG-2
46 Wall Tie UWT
51 Guardrail Post EPG
57 Toe Board UPY
59 Guardrail Holder EPW
80 Locking Pin Ø 48/57

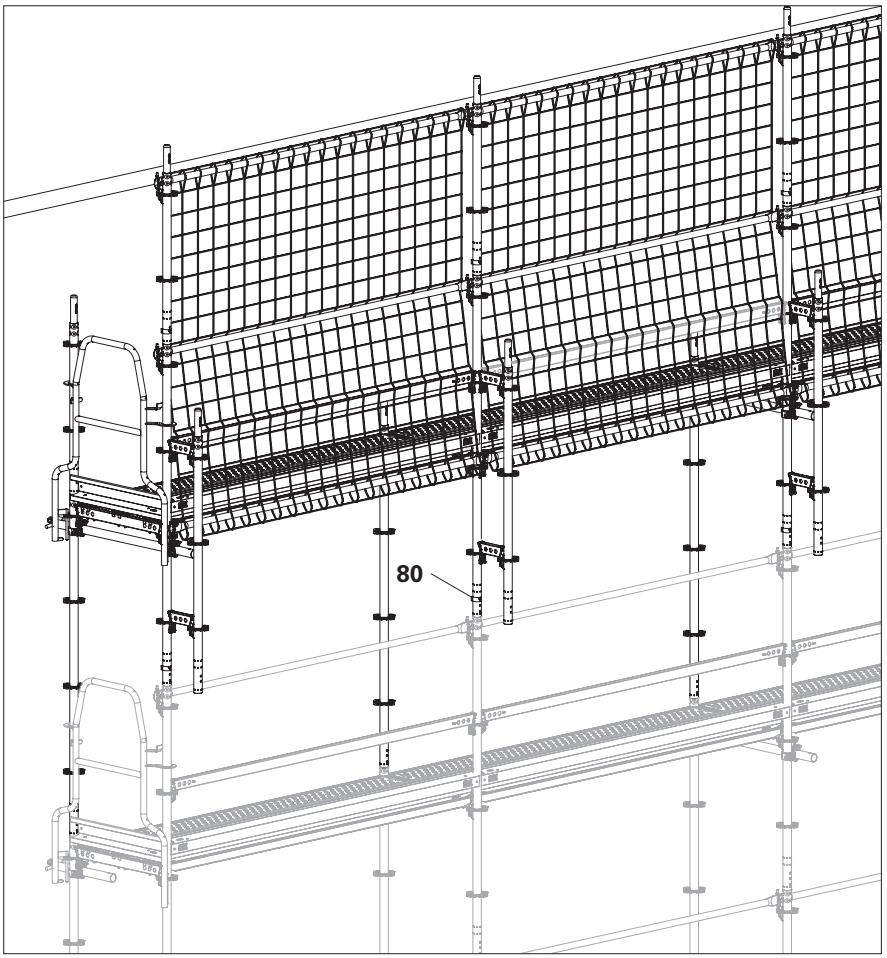


Fig. C2.01

C2 Protection panel

Preparation
Assemble top scaffold level with Standards UVR-2 200 (**17**) and Guardrail Post in Advance EPG (**51**). Insert Steel Decks UDG-2 (**30**). (Fig. C2.02)

Anchoring
- Anchor every frame column in the protection panel position.
  - Anchor every second frame column to the inner and outer legs with Wall Ties UWT (**46**).
  - Anchor remaining frame columns with single-standard wall ties.
- Depending on the equipment variation selected, further anchoring may be required.
- See Section Tie pattern.

(Fig. C2.02)

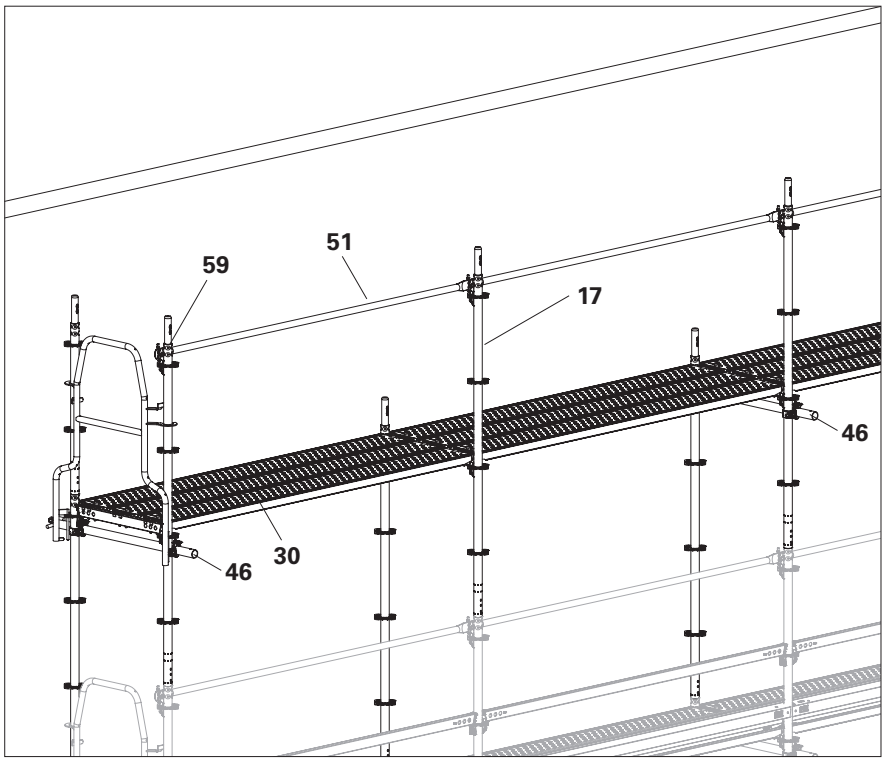


Fig. C2.02

Assembly

1. Attach a Standard UVR-2 100 (**15**) with pre-mounted Guardrail Holder EPW (**59**) (Fig. C2.03a) to the outer standard (**17**).
2. Connect the Standards (**17 + 15**) with locking pins (**80**) so that they are tension-proof.
3. Pre-assemble a Standard UVR-2 150 (**16**) and two Horizontal Ledgers UH-2 25 (**26**) (Fig. C2.03b).
4. Fit this assembly onto the outer leg 50 cm below and above the scaffold level using the horizontal ledgers. (Fig. C2.03)

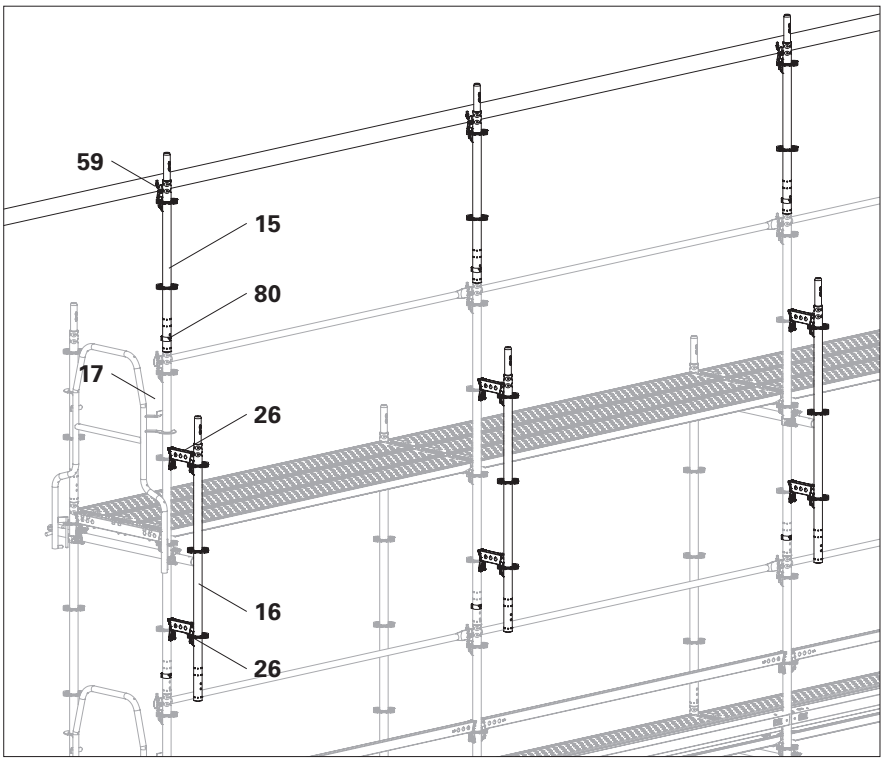


Fig. C2.03

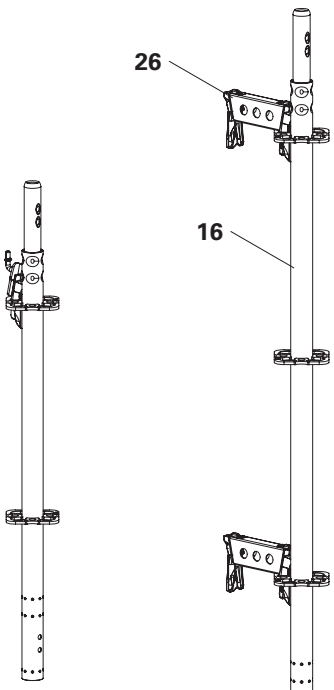


Fig. C2.03a

Fig. C2.03b

Installing the safety net

1. Thread Guardrail Post EPG (**51a**) through the mesh at the top edge of the safety net.
2. Attach the guardrail post (**51a**) to Guardrail Holders EPW (**59**) 2 m above deck level.
3. Fit a horizontal ledger (**29**) as an intermediate guardrail. As seen from the scaffold, the net must hang in front of the guardrail post (**51**) and behind the intermediate guardrail (**29**).

(Fig. C2.04 + C2.04a)

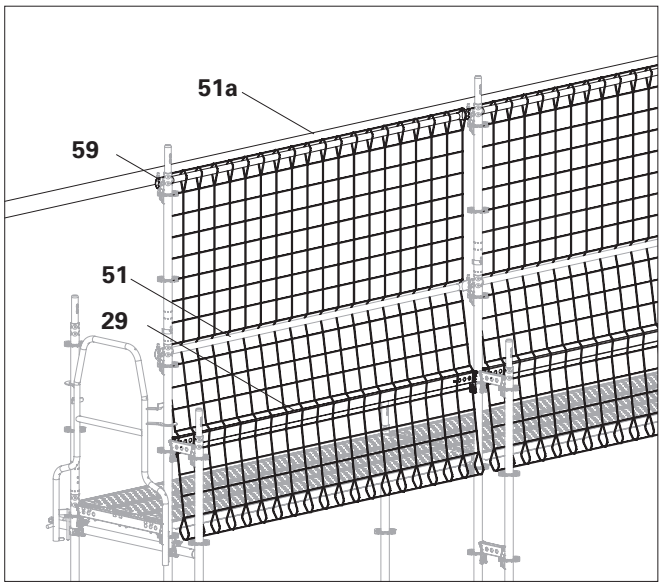


Fig. C2.04

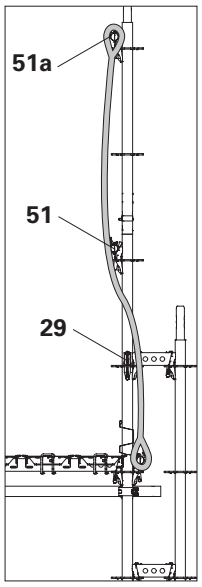


Fig. C2.04a

4. Fit Guardrail Holder EPW (**59a**) into the rosette of the standard.
5. Thread Guardrail Post EPG (**51**) through the mesh at the bottom edge of the safety net and attach it to the guardrail hooks (**59.1**) of the Guardrail Holder EPW.
6. Secure the guardrail posts on the Guardrail Holder EPW at the beginning and end of the protection panel with suitable means. (Fig. C2.05a)
7. Fit Toe Boards UPY (**57**) onto the protection panel.

→ The protection panel is now installed.

(Fig. C2.05)

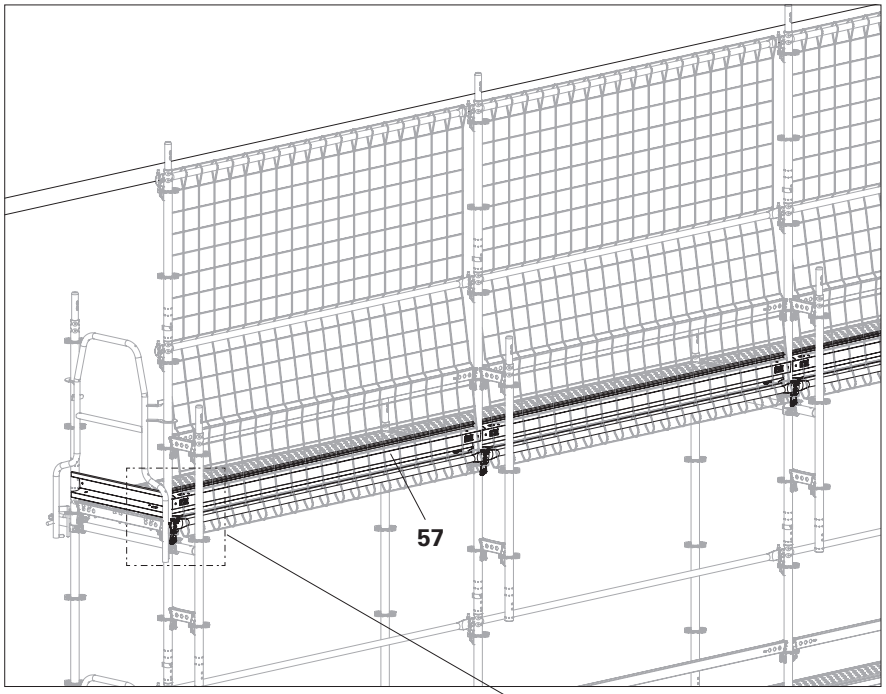


Fig. C2.05

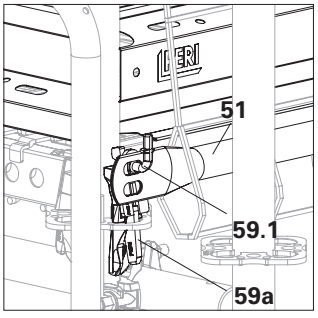


Fig. C2.05a

Safety nets with sewn-on loops or clips are to be installed according to the specifications of the net manufacturer.

General

To bridge openings, build over scaffold bays with formwork girders (**70**).
Single or double formwork girders that are 50 cm or 70 cm high can be used, depending on the load.
See Section "Load-bearing capacity of the formwork girders" on page 117 and Section "E3 Bridging" on page 128 or "F3 Bridging" on page 140 for the formwork girders that are approved for the respective scaffold width and equipment.

Bridging with auxiliary scaffolding

- Depending on the width of the scaffold, reinforcements may be required in the basic scaffold. See Tie pattern.
- The bridging opening in the scaffold above the erection area must have a clear width of at least 3.5 m and a clear height (H_L) of 3.5 m.
- For a spindling length of 0 cm:
  – Formwork girder 50: H_L = 3.44 m.
    → Spindling length of at least 6 cm
  – Formwork girder 70: H_L = 3.24 m.
    → Spindling length of at least 26 cm.

Erecting auxiliary scaffolding

1. Install auxiliary scaffolding in order to assemble bridging. To facilitate the removal of the auxiliary scaffolding, set up the auxiliary scaffolding asymmetrically. This will mean that the frame column (**A**) will be free-standing at a later time.

(Fig. C3.01 + C3.01a)

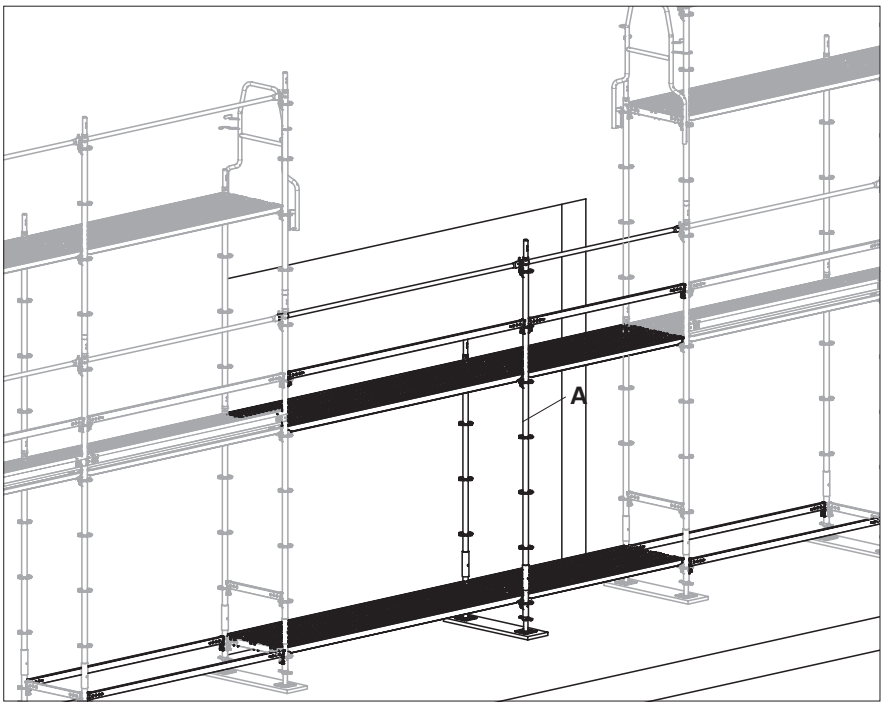


Fig. C3.01

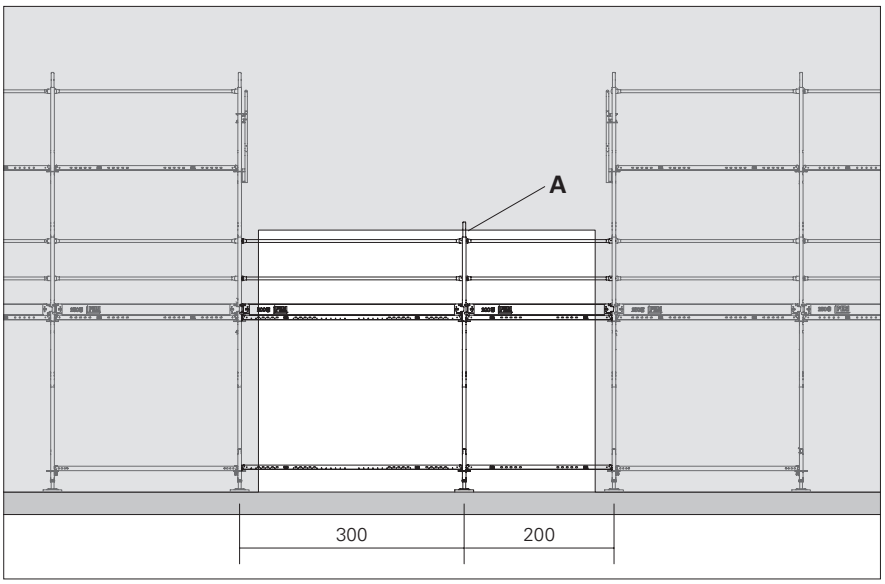


Fig. C3.01a

Installing bridging

Components

12 Base Standard UVB 25
17 Standard UVR-2 200
24 Horizontal Ledger UH-2 75
30 Steel Deck UDG-2
48 Standard coupler
59 Guardrail Holder EPW
70 Formwork Girder ULS/ULA
71 Starter Tube ULB
72 Coupling Latch UHC

Assembly

- From the auxiliary scaffolding:

1. Fit four standard couplers (**48**) onto the inner and outer leg (**17**) to the right and left of the opening.
   → Installation height: upper edge of the standard coupler to the lower edge of the rosette 12 cm. (Fig. C3.02a)
2. Position the formwork girder at the installation height and screw the top chord (**70.1**) onto the pre-assembled couplings.
3. Using four additional standard couplers, firmly screw the bottom chords of the formwork girders (**70.2**) in the same way.

(Fig. C3.02)

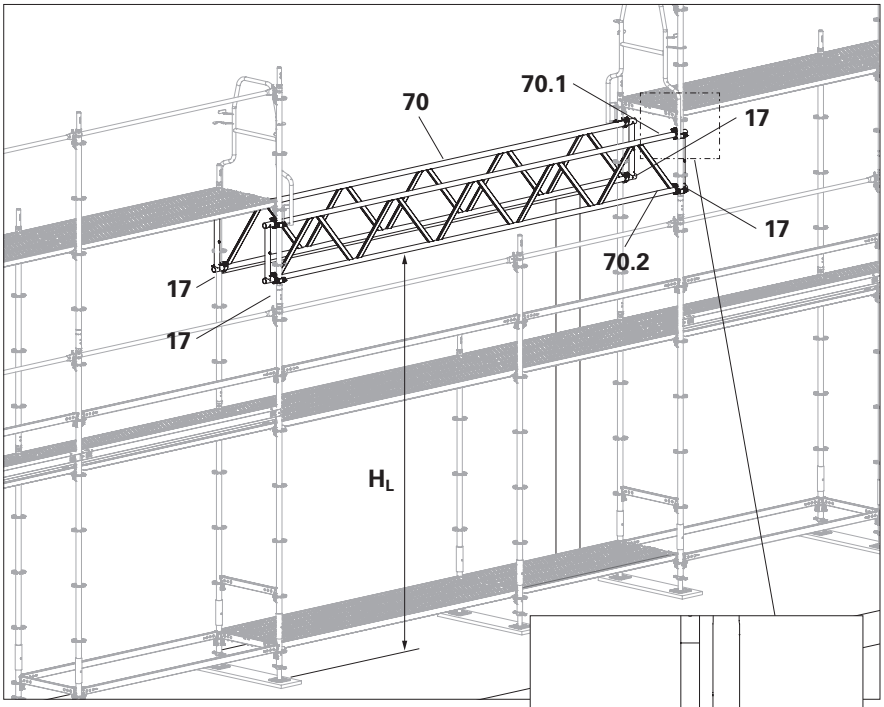


Fig. C3.02

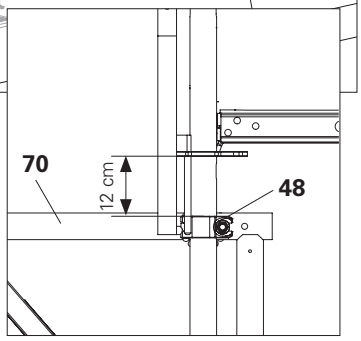


Fig. C3.02a

- Do not deviate from the installation height dimensions of the formwork girder! Inaccuracies lead to reduced load-bearing capacity, as well as wobbly or uneven decking.
- Fit all of the formwork girders used onto the standards using 4 standard couplers in each case.
- Depending on the required load-bearing capacity, additional sub-bolted couplers may be required beneath the standard couplers. See table "Load-bearing capacity of the formwork girders" on page 117.

5. Position Starter Tube ULB (**71**) on the formwork girders (**70**).
6. Fit Base Standards UVB 25 (**12**) onto the starter tubes and connect with horizontal ledgers (**27**). Secure the wedges.
7. Fit a Standard UVR-2 100 onto the outer leg with a pre-mounted Guardrail Holder EPW (**59**).
8. Install the decks (**30**).

(Fig. C3.03)

Secure the base standards against toppling until all decks are installed.

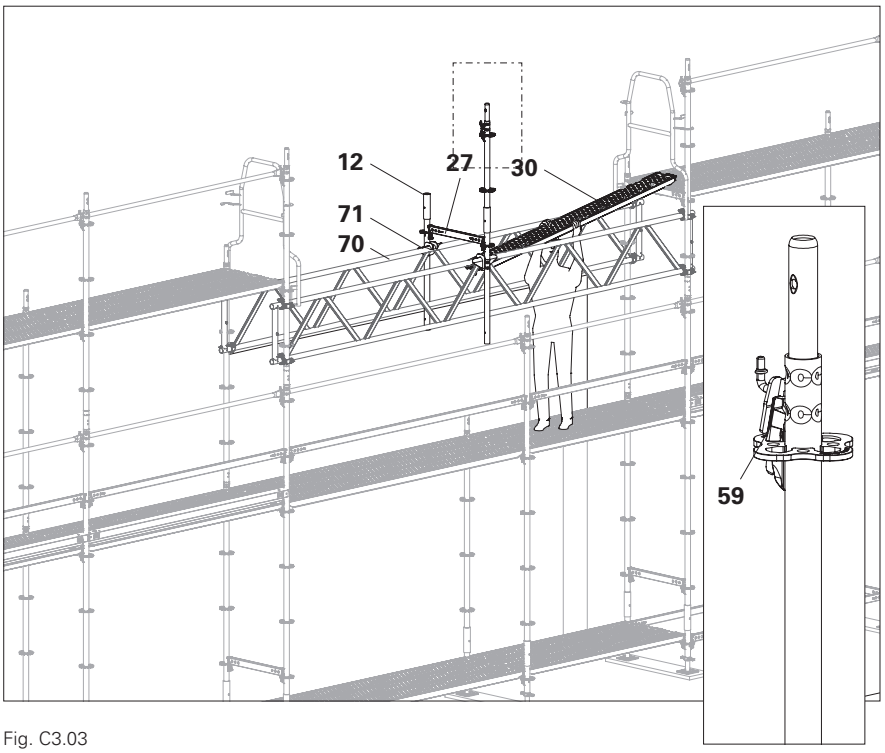


Fig. C3.03

9. Place Coupling Latch UHC 75 (**72**) on both bottom chords (**70.2**) of the formwork girders with the lugs (**72.1**) downwards. Place couplings around the starter tube (**71**), close and tighten.

(Fig. C3.04 + C3.04a)

Due to lifting wind forces, mount the Coupling Latch UHC from below.

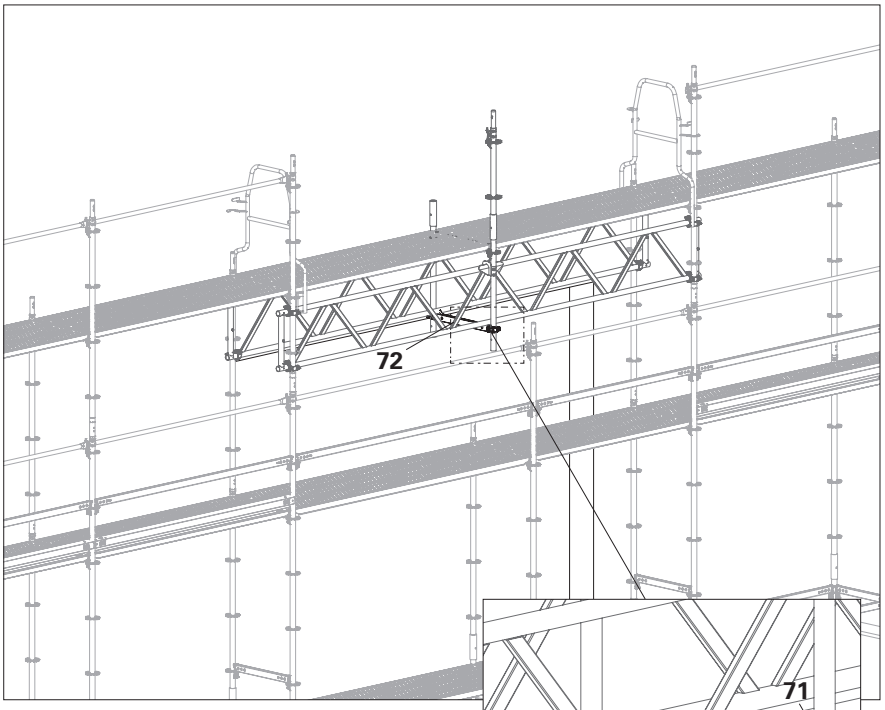


Fig. C3.04

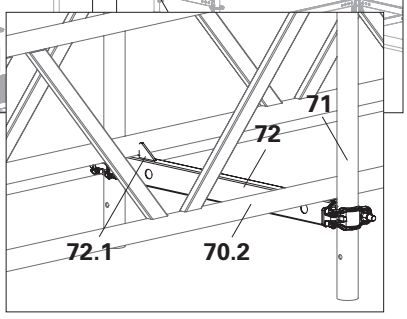


Fig. C3.04a

10. Install the bracing and anchoring from the auxiliary scaffolding (**46**). See "Bracing and anchoring" on page 103 ff (Fig. C3.05)

Some variants require additional anchoring (**46a**) in the first scaffold level. See Section Tie pattern.

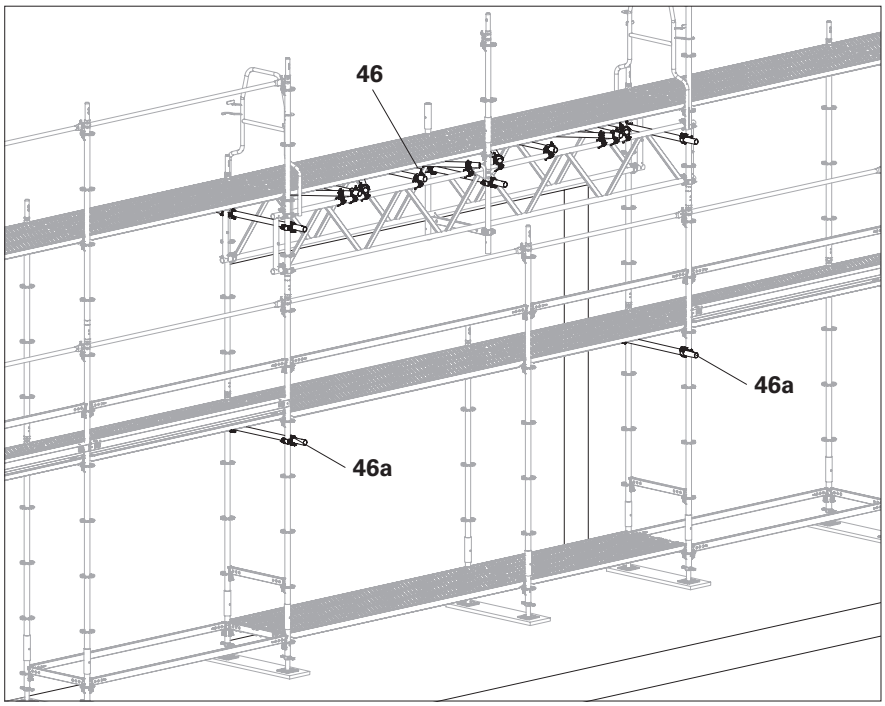


Fig. C3.05

Dismantling the auxiliary scaffolding

1. Install an End Guardrail in Advance UPA-2 (**52**) or horizontal ledger along the subsequent opening on the basic scaffold.
2. Dismantle the auxiliary scaffolding. (Fig. C3.06)

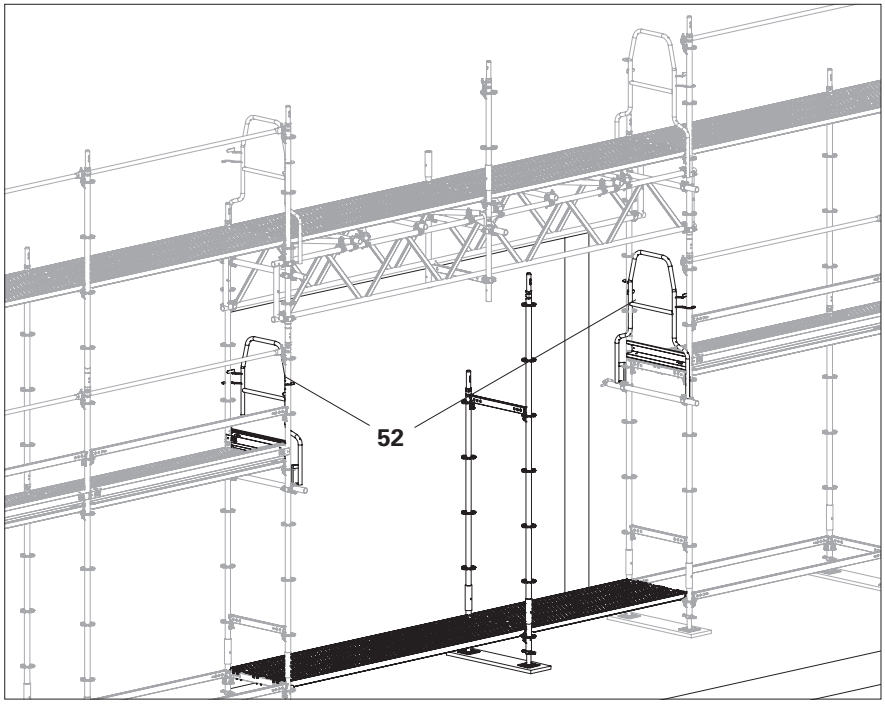


Fig. C3.06

Installing the lateral protection

Components

51 Guardrail Post EPG
52 End Guardrail in Advance UPA-2 75
57 Toe Board UPY

- From the basic scaffold:

1. Fit Guardrail Posts EPG (**51**).
2. Remove End Guardrail in Advance UPA (**52**) from the bridging position.
3. Complete the lateral protection with a horizontal ledger as an intermediate guardrail (**29**) and Toe Board UPY (**57**).

→ The bridging is now installed.
(Fig. C3.07 + C3.07a)

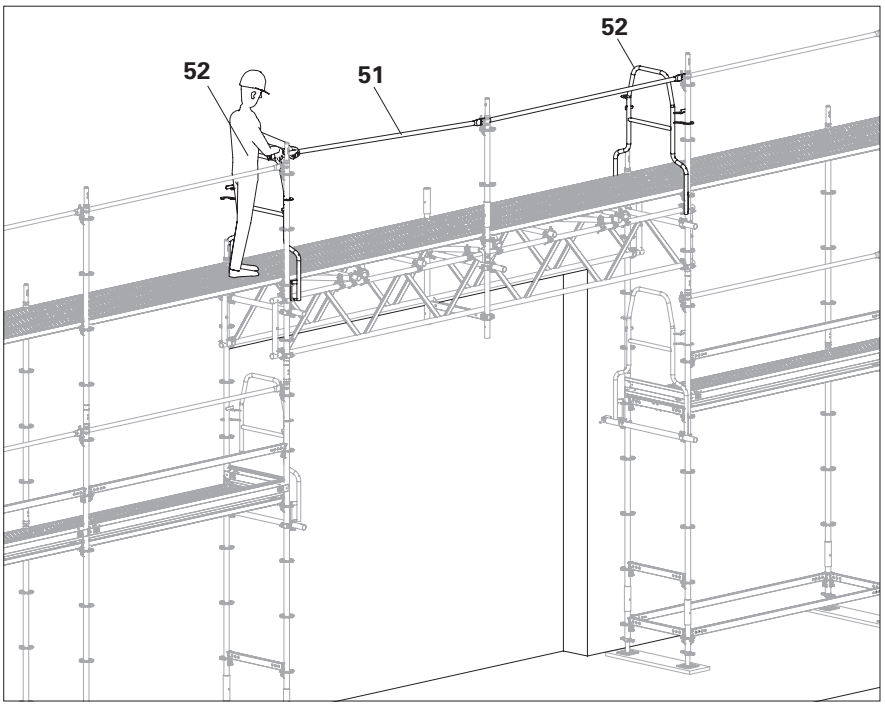


Fig. C3.07

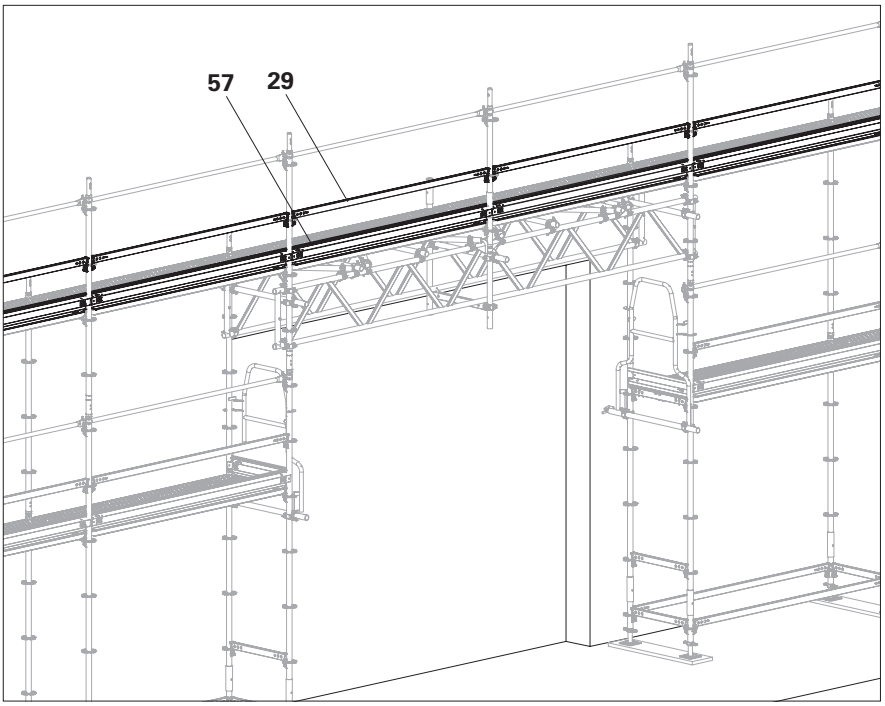


Fig. C3.07a

Bracing and anchoring

The spacings a_1 – a_3 of the lateral holders are to be selected according to the load stated in "Load-bearing capacity of the formwork girders" on page 117, whilst ties and braces are installed in accordance with the Section Tie pattern. Execution in accordance with standard configurations in Section D2.

Components

44	Eyebolt UFE
46	Wall Tie UWT
48	Standard coupler
49	Swivel coupling
75	Scaffold tube

Variant 1
Bracing with scaffold tubes
Brace the top chords of the Formwork Girders ULS/ULA (**70**) with a combination of scaffold tubes and swivel couplings.

1. Fit the scaffold tubes (**75**) onto both top chords (**70.1**) of the formwork girders with swivel couplings (**49**) and standard couplers (**48**).
2. Attach Wall Tie UWT to the Eyebolt UFE (**44**).
3. Fit the Wall Tie UWT (**46a**) onto both Starter Tubes ULB (**71**) with standard couplers.
4. Fit Wall Ties UWT (**46b**) onto both Standards UVR-2 (**17**).

→ The bracing is now installed.
(Fig. C3.08 – C3.10)

Section A – A

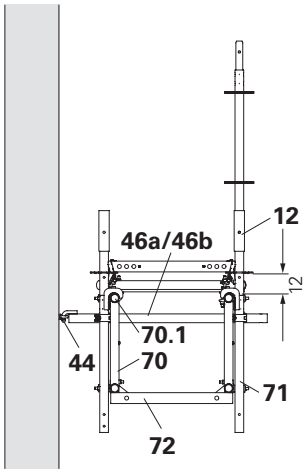


Fig. C3.08

View B

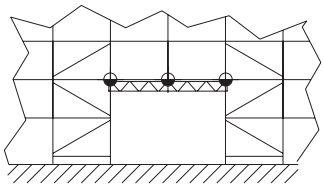


Fig. C3.10

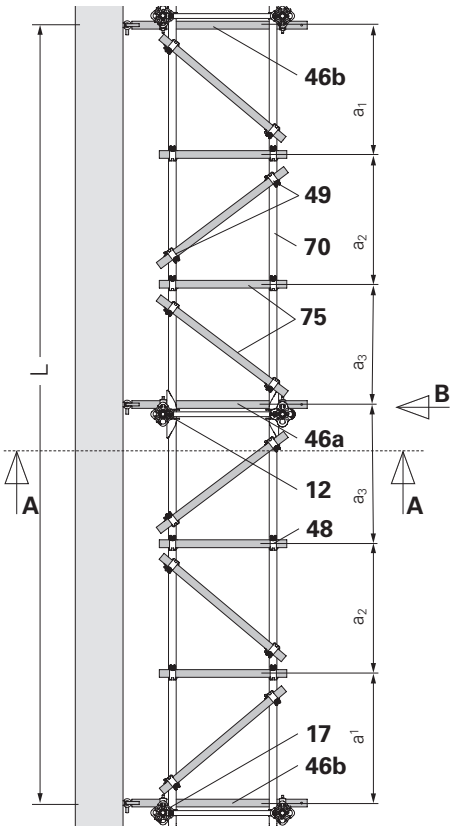


Fig. C3.09

Variant 2
Bracing with Wall Tie UWT
Alternatively, brace the Formwork Girders ULS/ULA (**70**) with Wall Ties UWT (**46**) and standard couplers.

1. Attach Wall Tie UWT to the Eyebolt UFE (**44**).
2. Fit Wall Ties UWT (**46a**) onto both Starter Tubes ULB (**71**) with standard couplers (**48**).
3. Fit Wall Ties UWT (**46b**) onto both top chords of the formwork girders.
4. Fit Wall Ties UWT (**46c**) onto both standards (**17**).

→ The bracing is now installed.
(Fig. C3.11 – C3.13)

Section A – A

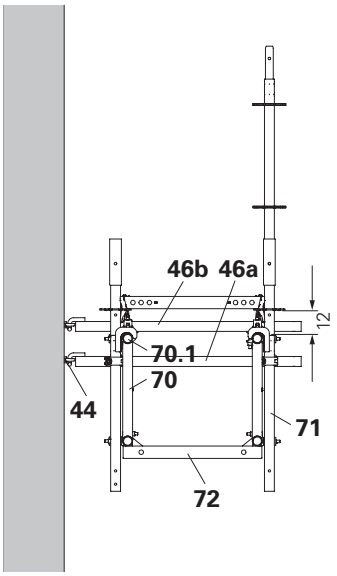


Fig. C3.11

View B

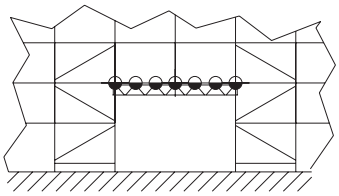


Fig. C3.13

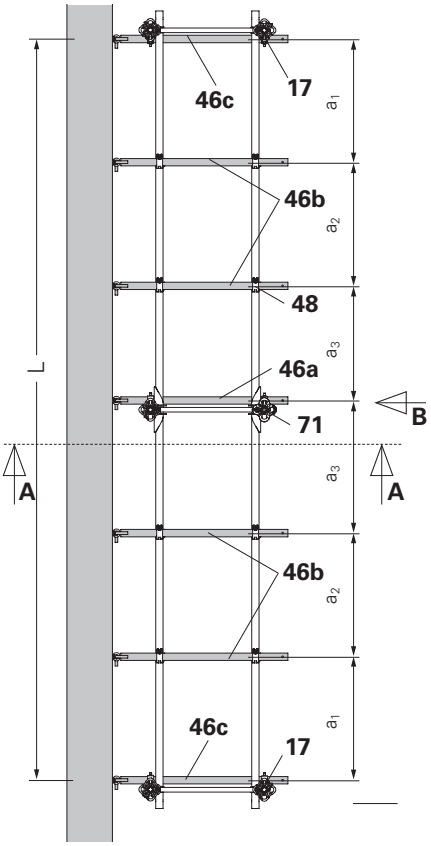


Fig. C3.12

Bridging with 2 x 2 Formwork Girders ULS/ULA

After installing the first formwork girders on the inside, formwork girders can additionally be installed below on the outer side of the vertical tubes with an offset of 12 cm.

- The spacings a_1 – a_3 of the lateral holders are to be selected according to the load stated in "Load-bearing capacity of the formwork girders" on page 117, whilst ties and braces are installed in accordance with the Section Tie pattern.
- The permissible loads for bridging with 2 x 2 formwork girders are derived from the sum of the permissible loads of the individual girders.

Variant 1
Bracing with scaffold tubes

1. Fit scaffold tubes (**75**) with standard couplers (**48**) beneath the top chords of the inner formwork girders.
2. Attach Wall Tie UWT (**46a**) to the Eyebolt UFE.
3. Fit Wall Ties UWT (**46a**) beneath the top chords of the inner formwork girders (**70**).
4. Fit Wall Ties UWT (**46b**) onto both top chords (**17**).
5. Fit the outer, downwardly offset formwork girders (**70a**) on the top chords onto the scaffold tubes (**75**), the wall ties (**46a + 46b**), the starter tubes (**71**) and 4x standards (**17**) with standard couplers.
6. Slide the scaffold tubes (**75a**) transversely between the top chords of the inner and outer formwork girders. Fit scaffold tubes onto all top chords with swivel couplings (**49**).

→ The bracing is now installed.
(Fig. C3.14 – C3.16)

Section A – A

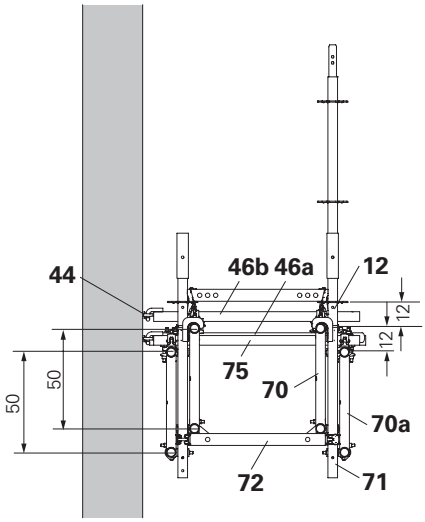


Fig. C3.14

View B

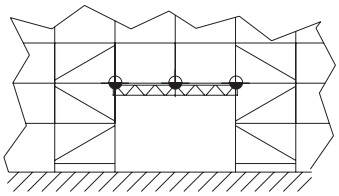


Fig. C3.16

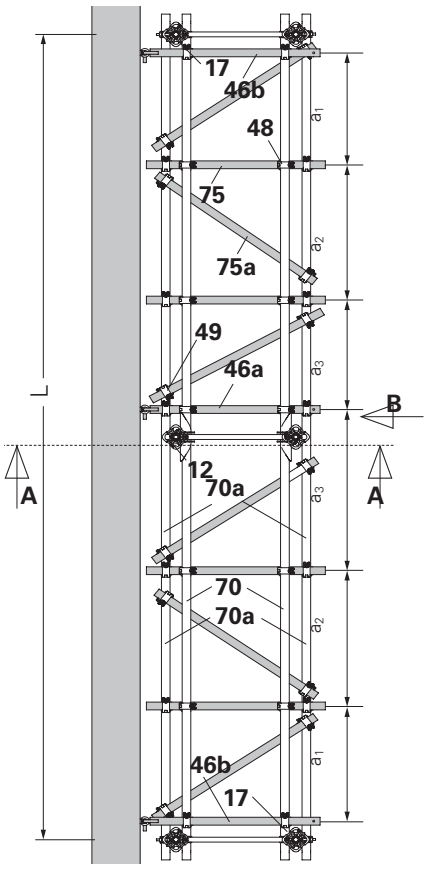


Fig. C3.15

Variant 2
Bracing with Wall Tie UWT
Alternatively, brace the Formwork Girders ULS/ULA (**70**) with Wall Ties UWT (**46**) and standard couplers (**48**).

1. Attach Wall Tie UWT to Eyebolt UFE.
2. Fit Wall Ties UWT (**46a**) beneath the top chords of the inner formwork girders (**70**) using standard couplers (**48**).
3. Fit Wall Ties UWT (**46b**) beneath the top chords of the inner formwork girders using standard couplers.
4. Fit the outer, downwardly offset formwork girders (**70a**) on the top chords onto the wall ties (**46a + 46b**), the starter tubes (**71**) and 4x standards (**17**) using standard couplers.

→ The bracing is now installed.
(Fig. C3.17 – C3.19)

Section A – A

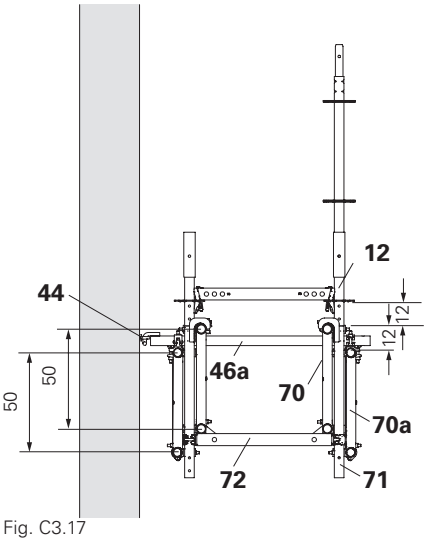


Fig. C3.17

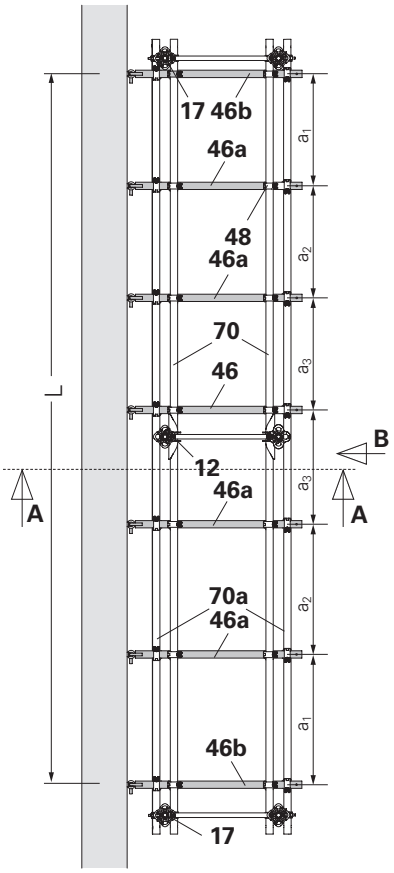


Fig. C3.18

View B

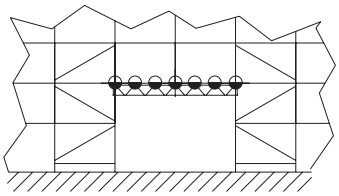


Fig. C3.19

Multi Brace EWB

On structures that do not allow anchoring, Multi Braces EWB can be installed as scaffold support.

A multi brace consists of:
- An outer tube Ø 60 mm (**81.1**) with swivel couplings fixed on both sides (81.3, 81.4)
- Inner tube Ø 48 mm (**81.2**).

(Fig. C4.01)

- Maximum extension length 5.60 m. The second hole (**81.6**) in the inner tube must not be visible and must always be completely covered by the outer tube. (Fig. C4.01)
- Tighten couplings using 50 Nm.
- Attach scaffolding support on each frame column progressively in line with basic scaffold assembly. Support angle α ≤ 60°.
- The force application must be close to the horizontal ledger. (Fig. C4.01a)

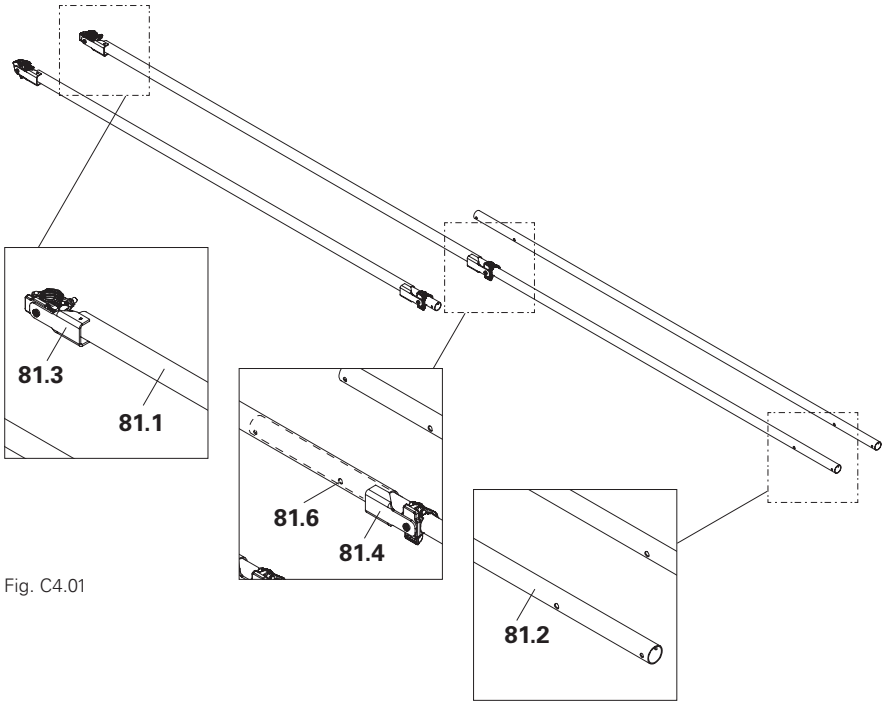


Fig. C4.01

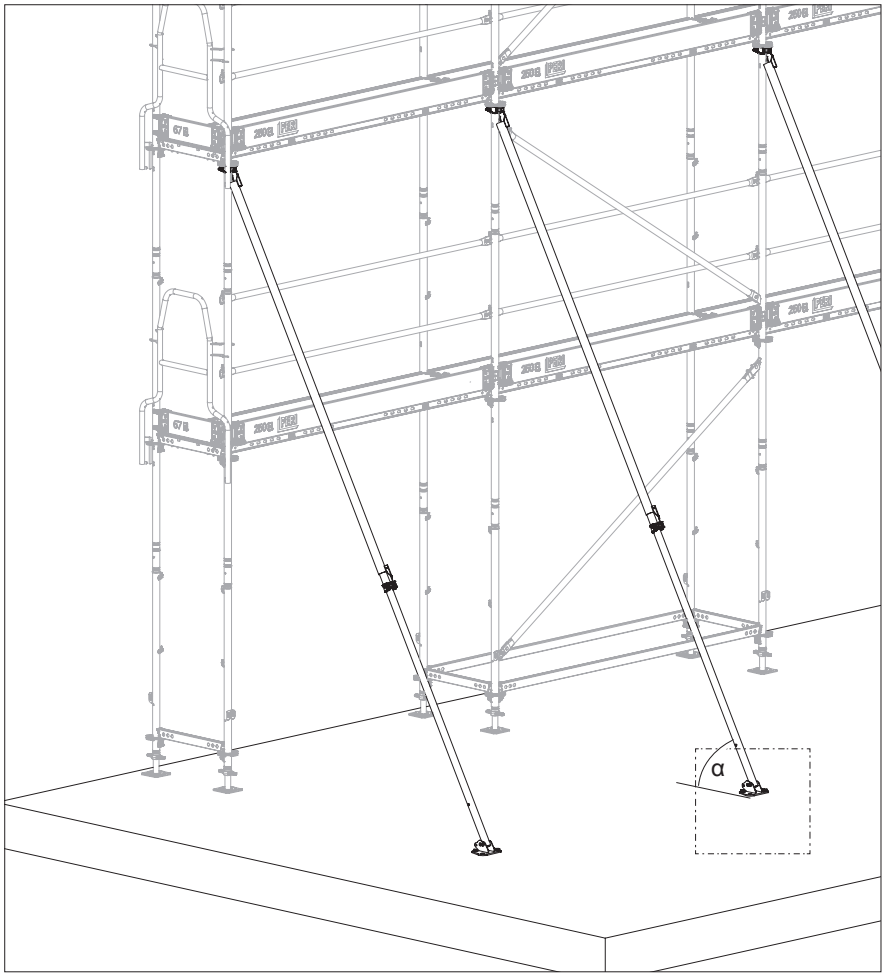


Fig. C4.01a

Base Plate EWB
Fix the Base Plate (**82**) to the substrate using 2 tie bolts (**85**) inserted through the small holes (**82.1**).

Alternatively, fix the base plate to the substrate by means of 2 pegs through the large holes (**82.2**).
Base plate is suitable for standard ground nails up to d = 25 mm. The hole (**82.2**) of the base plate has a diameter of 28 mm.

Mount the inner tube of the multi brace on the holes using bolts and nuts (**82.3**) and (**82.4**). If necessary, install a multi brace as a kicker brace at the hole (**82.3**). (Fig. C4.02)

Instead of the Multi Brace EWB, one Push-Pull Prop RS can be installed on the middle hole (**82.5**) as scaffolding support.
(Fig. C4.03)

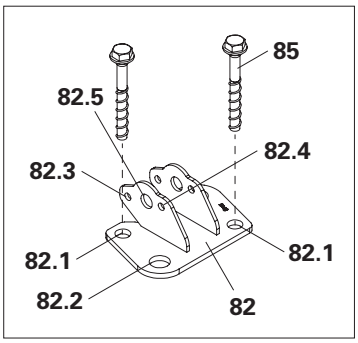


Fig. C4.02

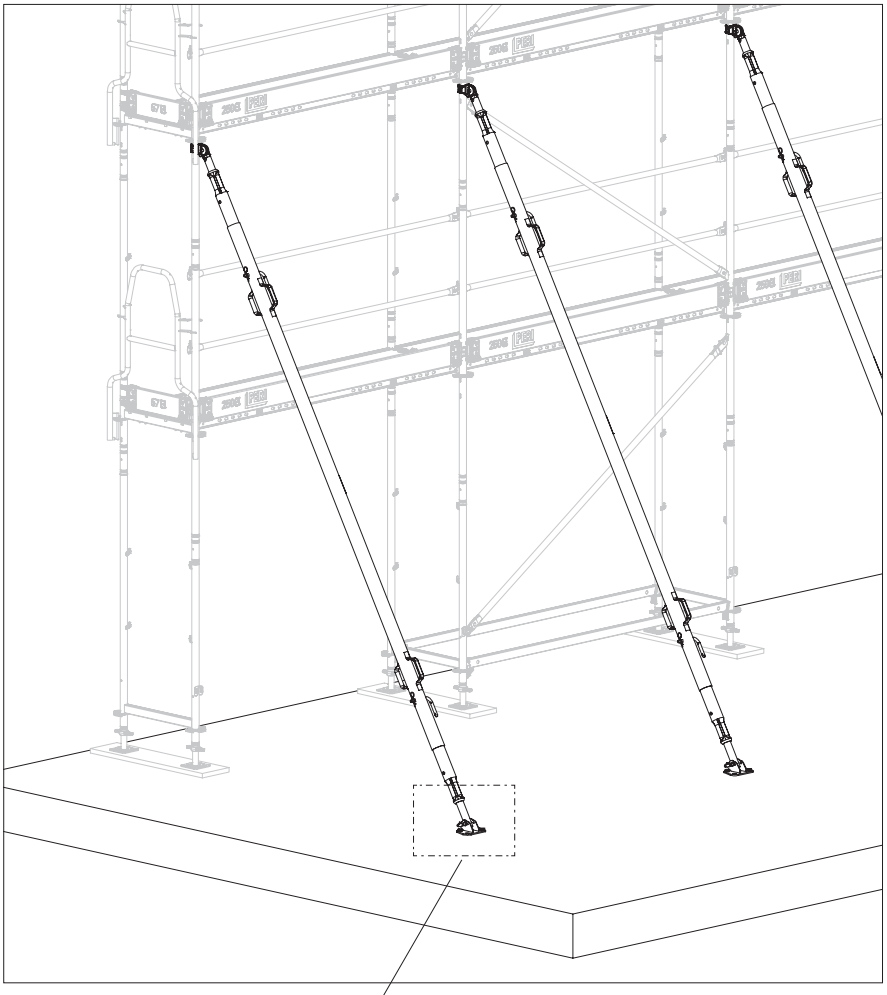
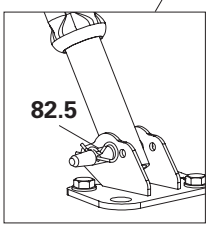


Fig. C4.03



Support on the second scaffold level
Maximum permissible forces at maximum extension of 5.60 m:
Tension: 6.00 kN
Compression: 3.73 kN

Assembly
1. Secure the multi brace on the basic scaffold at the top with an outer tube (**81.1**).
2. From the first scaffold level, fit the top coupling (**81.3**) onto the outer standard (**17**). Push the coupling as close as possible to the rosette and tighten. (Fig. C4.04a)
3. Loosen the bottom coupling (**81.4**) and extend the multi brace until the required support angle of α ≤ 60° has been reached. Tighten the bottom coupling. (Fig. C4.04b)
4. Fit the inner tube (**81.2**) onto the rear hole (**82.4**) of the base plate by means of bolts (**83**) and nuts (**84**).
5. Fix Base Plate EWB (**82**) to the substrate. (Fig. C4.04c)
6. Label the multi brace as an obstacle.

→ The multi brace is now installed (Fig. C4.04)

Components

17	Standard UVR-2 200
81	Multi Brace EWB
82	Base Plate EWB
83	Bolt M10 x 80-8.8
84	Nut EN 1661 M10-8
85	Tie Bolt PERI 14/20 x 130

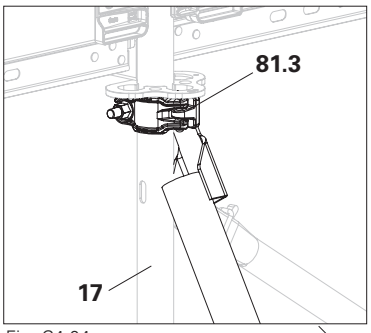


Fig. C4.04a

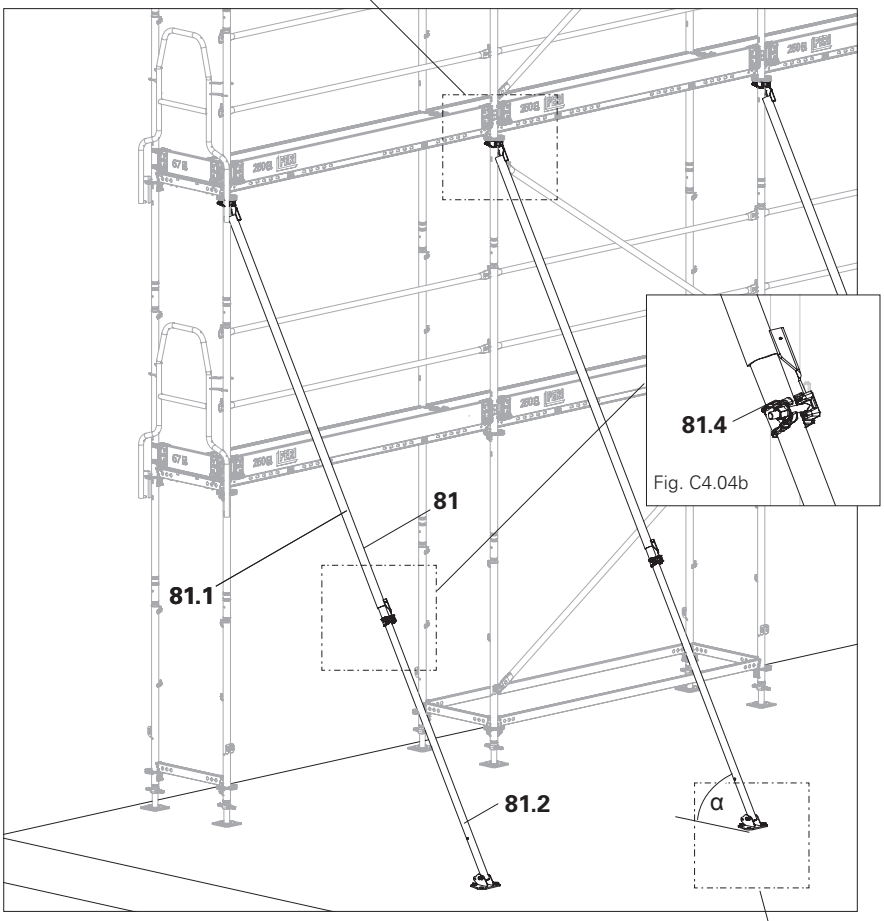


Fig. C4.04b

Fig. C4.04

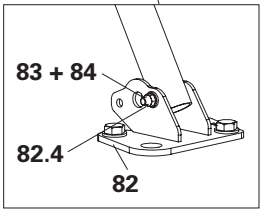


Fig. C4.04c

Support on the third scaffold level
To extend the multi brace, insert another inner tube into the top side of the outer tube.

Maximum permissible forces at maximum extension of 8.20 m:
Tension: 6.00 kN
Compression: 1.31 kN

Assembly
1. Extend the Multi Brace EWB with an additional inner tube (**81.5**).
2. Insert upper inner tube (**81.5**) up to above the second hole in the outer pipe and tighten the coupling.
3. Secure the multi brace on the basic scaffold.
4. From the second scaffold level, fit the inner tube onto the outer standard (**17**) using a swivel coupling (**49**). Push the coupling as close as possible to the rosette and tighten. (Fig. C4.05a)
5. Loosen the bottom coupling and extend the multi brace until the required support angle of $\alpha \leq 60°$ has been reached. Tighten the bottom coupling.
6. Fit the inner tube (**81.2**) onto the rear hole (**82.4**) of the base plate by means of bolts (**83**) and nuts (**84**).
7. Fix Base Plate EWB (**82**) to the substrate. (Fig. C4.05b)
8. Label the multi brace as an obstacle.

→ The multi brace is now installed (Fig. C4.05)

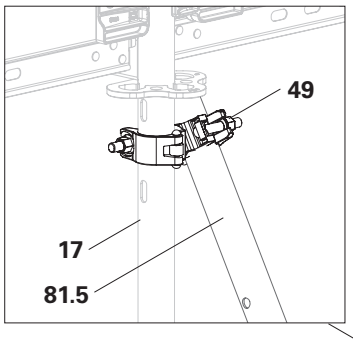


Fig. C4.05a

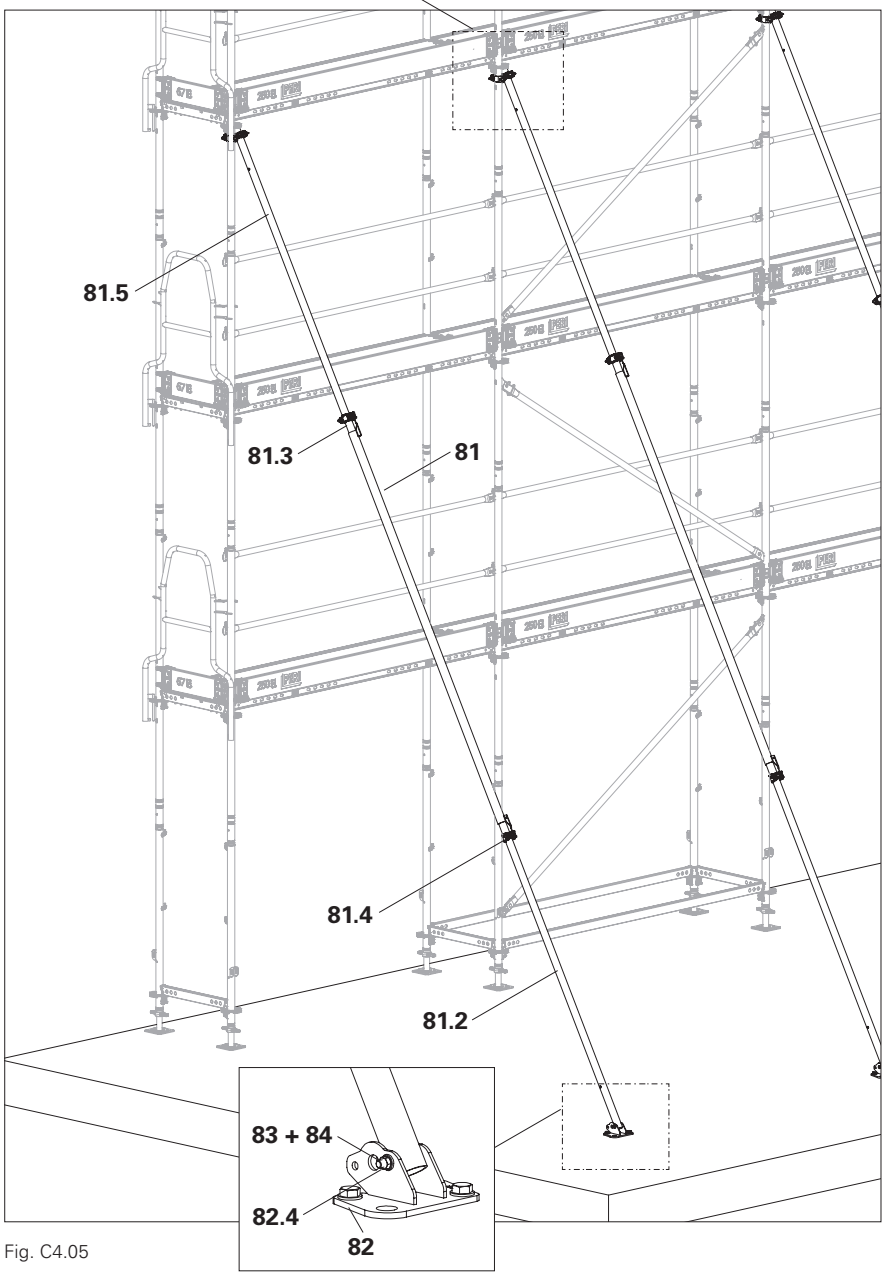


Fig. C4.05

Fig. C4.05b

Bracing

At right angles to the basic scaffold
In special cases, it may be necessary to reinforce the multi brace by means of a ledger, e.g. if the base plate cannot be sufficiently secured to prevent horizontal kicker brace.

- Separate static proof is required!
- The vertical load-bearing capacity of the substrate beneath the base plate must always be ensured!

Assembly

1. Fit an inner tube (**81.2**) onto the front hole (**82.3**) of the base plate (**82**) by means of bolts (**83**) and nuts (**84**). (Fig. C4.06b).
– Alternatively, fit scaffold tube (**75**) onto the multi brace (**81**) by means of a swivel coupling.
2. Install the inner tube or scaffold tube on the outer base standard (**12**) with a swivel coupling (**49**). Tighten the swivel coupling. (Fig. C4.06a)
3. Label horizontal bracing as an obstacle.

→ The bracing is now installed.
(Fig. C4.06)

Required length of the scaffold tube:
for support on the second scaffold level 2.50 m,
for support on the third scaffold level 4.00 m.

Components

12	Base Standard UVB 25
81	Multi Brace EWB
82	Base Plate EWB
83	Bolt M10 x 80-8.8
84	Nut EN 1661 M10-8
48	Standard Coupler RA 48/48
49	Swivel Coupling AF 48/48
75	Scaffold tube

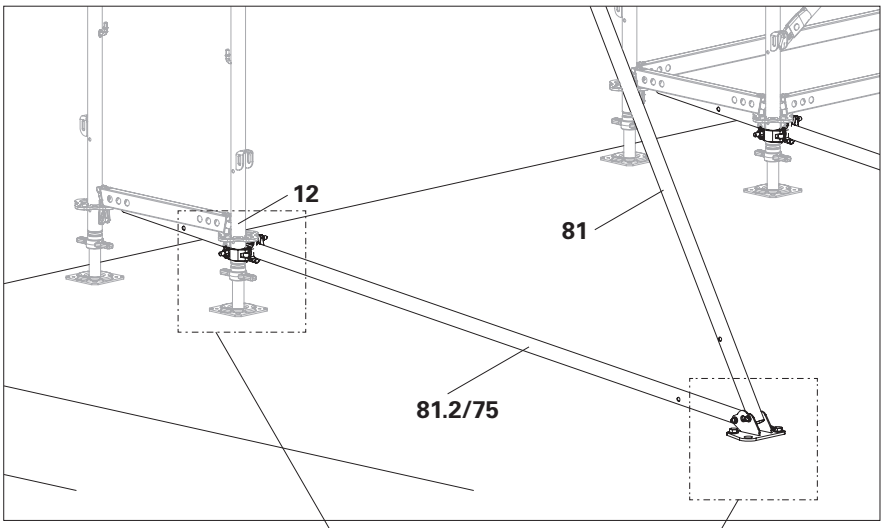


Fig. C4.06

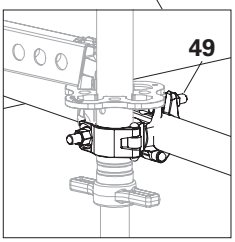


Fig. C4.06a

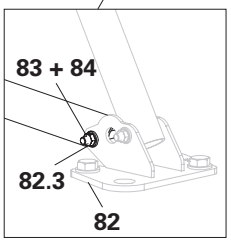


Fig. C4.06b

Horizontal and vertical bracing
If statically required, the multi brace must be reinforced against vertical and horizontal displacement.

- Separate static proof is required!
- The vertical load-bearing capacity of the substrate beneath the base plate must always be ensured!

Assembly
1. Vertically reinforce the multi brace (**81**) with an outer tube (**81.1**). Fit the outer tube onto the base standard (**12**) (Fig. C4.07b) and onto the inner tube (**81.2**), close to the outer tube. The assembly position has an impact on the support angle.
2. For 3 m long bays, horizontally reinforce each multi brace with an outer tube.
   For bay lengths ≤ 2.5 m, horizontally reinforce each multi brace with a scaffold tube (**75**) and standard couplers (**48**). (Fig. C4.07a)
3. Label horizontal bracing as an obstacle.

→ The bracing is now installed. (Fig. C4.07)

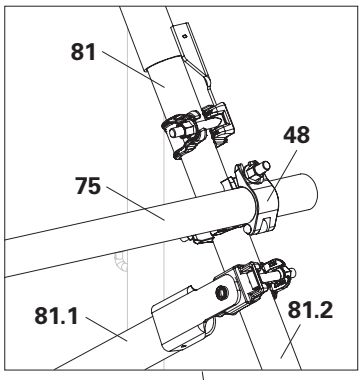


Fig. C4.07a

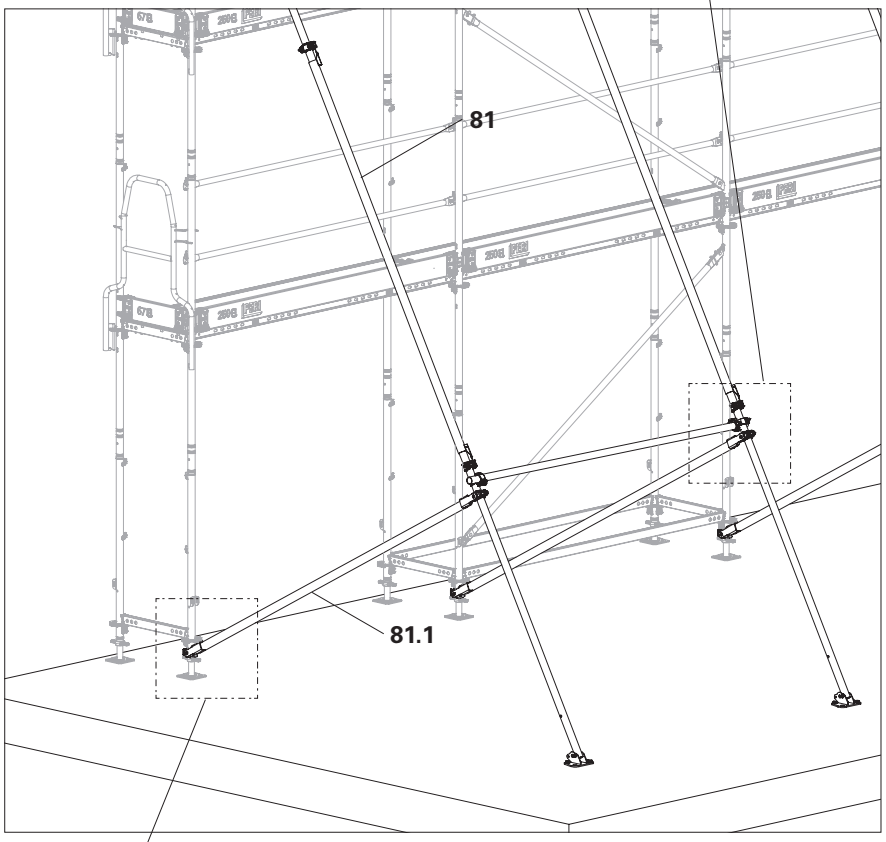


Fig. C4.07

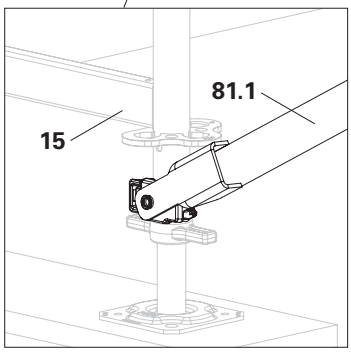


Fig. C4.07b

Push-Pull Props RS

As an alternative to the multi brace, the scaffold can be supported with Push-Pull Props RS.

Assembly

1. From the first scaffold level, fit a Brace Connector HDR-2 (**101**) onto the outer standard (**17**). Push the coupling as close as possible to the rosette and tighten.
2. Fit Push-Pull Prop RS 650 (**102**) onto the Brace Connector HDR-2. (Fig. C4.08a)
3. Spindle out the push-pull prop until the required support angle of $\alpha \leq 60°$ has been reached.
4. Fix the push-pull prop in the large hole of the base plate with bolts (**103**) and cotter pins (**104**).
5. Fix Base Plate EWB (**82**) to the substrate. (Fig. C4.08b)
6. Label the push-pull prop as an obstacle.

→ The push-pull prop is now installed. (Fig. C4.08)

Components

17	Standard UVR-2 200
82	Base Plate EWB
101	Brace Connector HDR-2
102	Push-Pull Prop RS 650
103	Bolt Ø 20 x 140
104	Cotter pin 4/1

Fig. C4.08a

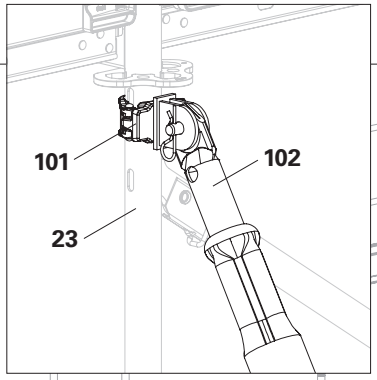


Fig. C4.08

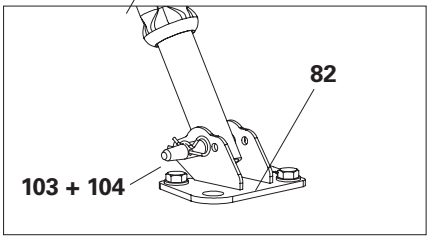


Fig. C4.08b

D1 Load-bearing capacities

Decks

Overview of decks according to lengths, load classes and use as roof edge protection scaffold.

Suitable decks and the corresponding lengths have to be chosen for the respective load class for the standard configuration described in these Instructions for Assembly and Use!

Scaffold deck	Length [m]	Width [m]	Weight [kg]	Load Classes according to EN 12811						Use as roof edge protection scaffold
				1	2	3	4	5	6	
				Uniformly distributed nominal load p [kN/m²]						
				0.75	1.50	2.00	3.00	4.50	6.00	
Steel Deck UDG-2	0.50	0.25	3.19	x	x	x	x	x	x	x
	0.67		3.96	x	x	x	x	x	x	x
	0.75		4.32	x	x	x	x	x	x	x
	1.00		5.45	x	x	x	x	x	x	x
	1.25		6.59	x	x	x	x	x	x	x
	1.50		7.73	x	x	x	x	x	x	x
	2.00		10.50	x	x	x	x	x	x	x
	2.50		12.90	x	x	x	x	x	–	x
	3.00		15.80	x	x	x	x	–	–	x
Access Deck UAA	2.50	0.75	27.00	x	x	x	–	–	–	x
	3.00		30.30	x	x	x	–	–	–	x
Entry Platform UAA	1.50	0.75	16.00	x	x	x	–	–	–	x
	2.00		19.10							
Access Deck UAW	2.50	0.75	25.90	x	x	x	–	–	–	x
	3.00		29.70	x	x	x	–	–	–	x
Entry Platform UAW	1.50	0.75	14.10	x	x	x	–	–	–	x
	2.00		17.90							
Access Deck UAC	2.50	0.75	26.60	x	x	x	–	–	–	x
	3.00		30.70	x	x	x	–	–	–	x
Entry Platform UAC	1.50	0.75	14.50	x	x	x	–	–	–	x
	2.00		18.50							

x = Use permissible
– = Use not permissible

Load-bearing capacity of the formwork girders

The permissible loads stated in the table apply only when starter tubes are used and load is introduced at the nodes of the diagonal struts.

Load-bearing capacity of the formwork girders				Steel lattice girder ULS		Aluminium Formwork Girder ULA HD	
Type	Spacing of the lateral holders*			Individual load in middle of bay	Connecting the chords with bottom chord/top chord	Individual load in middle of bay	Connecting the chords with bottom chord/ top chord
Height/ length [cm]	a1 [cm]	a2 [cm]	a3 [cm]	perm. F [kN]	[–]	perm. F [kN]	[–]
Span L = 400 cm							
50/425	200	–	–	15.1	NK/NK	6.3	NK/NK
50/525	200	–	–	15.1	NK/NK	6.3	NK/NK
70/525	200	–	–	20.7	NK/NK	–	–
50/425	100	100	–	30.7	NK/NK	16.3	NK/NK
50/525	100	100	–	30.7	NK/UNK	16.3	NK/NK
70/525	100	100	–	31.1	NK/UNK	–	–
Span L = 500 cm							
50/525	250	–	–	15.1	NK/NK	6.3	NK/NK
50/625	250	–	–	15.1	NK/NK	6.3	NK/NK
50/525	150	100	–	27.2	NK/NK	15.6	NK/NK
50/625	150	100	–	27.4	UNK/NK	15.6	NK/NK
70/525	250	–	–	20.7	NK/NK	–	–
70/625	250	–	–	20.7	NK/NK	–	–
70/525	150	100	–	29.1	UNK/NK	–	–
70/625	150	100	–	29.1	UNK/NK	–	–
Span L = 600 cm							
50/625	300	–	–	8.8	NK/NK	3.5	NK/NK
70/625	300	–	–	12.1	NK/NK	–	–
70/825	300	–	–	12.1	NK/NK	5.0	NK/NK
50/625	150	150	–	17.5	NK/NK	11.5	NK/NK
70/625	150	150	–	23.5	NK/UNK	15.7	NK/UNK
50/625	100	100	100	23.2	NK/NK	13.1	NK/NK
70/625	100	100	100	26.8	NK/UNK	–	–
70/825	100	100	100	26.6	NK/UNK	15.9	NK/NK

* see "Bracing and anchoring" on page 103 ff

NK: Standard coupler, Class B according to DIN EN 74-1
UNK: Standard coupler Class BB with standard coupler Class BB placed underneath (coupler configuration BB/BB) according to DIN EN 74-1

General

- Ties must be installed progressively with the scaffold assembly
- Proof of the load-bearing capacity of the fixing materials between the wall ties and the anchoring base for the tie forces in the tables in Section "E1" or "F1 Tie forces" is required.

Warning

- The structural stability of the scaffold construction is reduced by missing or insufficiently load-bearing ties.
- Ties do not transfer vertical loads.

This could result in the scaffold collapsing.

⇒ Adhere to the number and position of the ties shown in Section "E4" or "F4 Tie pattern"!

- In exceptional cases, anchors may be fitted at up to 30 cm below the decking transom, but in no more than one tie position. If the pavement gantry profile is smaller, this must be clearly marked!
- If the scaffold ends in what is an unanchored level according to the tie pattern, then it must be anchored to the top anchoring level shown in the tie pattern.

With respect to how the PERI UP Flex scaffolding is used, various equipment variations are shown on the following pages in accordance with the proven standard configurations.

The number and type of ties and horizontal ledgers as well as the maximum possible spindle extension are shown in the tie patterns.

The following applies for use:

- The ties and horizontal ledgers of the basic variants must be installed in every case (marked in grey in the variants).
- Additional ties or horizontal ledgers (shown in black) are necessary when these variants are used.
- Contrary to the arrangements depicted in the tie patterns, the external console brackets they show can be mounted on the scaffold on any given level, but on one level only.

Typical tie patterns:

Tie pattern 8 m, offset.
e.g. for unclad scaffolds in front of a closed facade.
(Fig. D2.01)

Tie pattern 4 m
e.g. for unclad scaffold in front of an open facade.
(Fig. D2.02)

The final tie pattern depends on the factors that exert an influence on the scaffold:
1. Closed/open facades,
2. Cladding,
3. Mounting parts, e.g.:
   – Console brackets,
   – Bridging,
   – Roof edge protection scaffold, etc.

Tie pattern 8 m, offset.
Basic variant 1, 2 & 3.

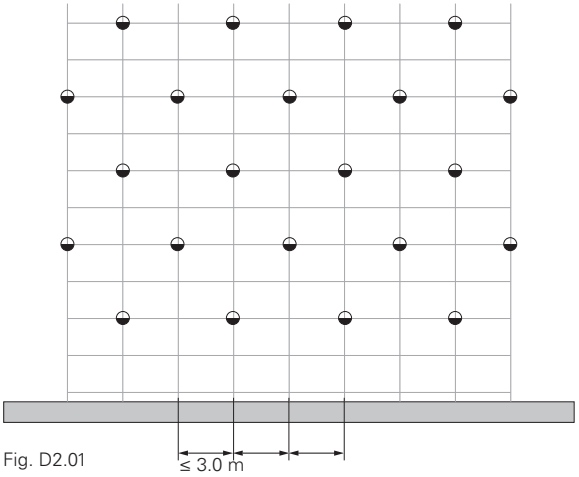


Fig. D2.01

Tie pattern 4 m
Basic variant 4

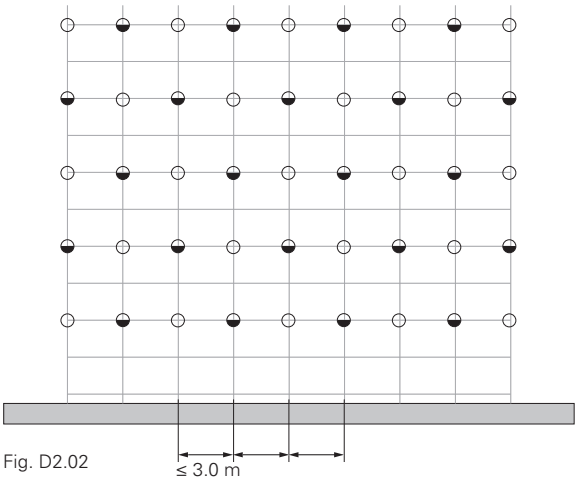
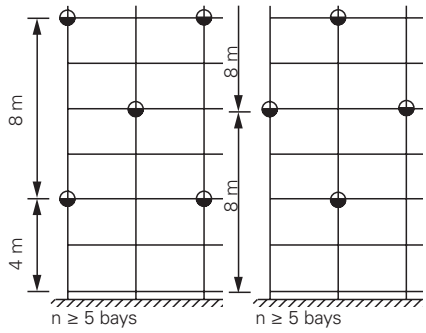


Fig. D2.02

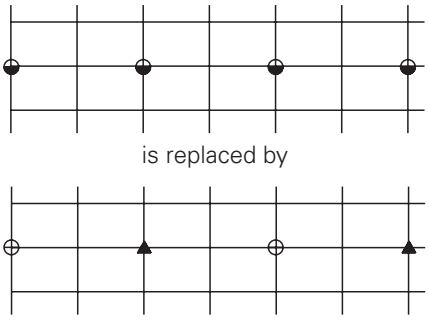
For tie patterns where h ≤24 m, the following applies:

- Scaffold with a maximum structure height of 24 m plus spindle extension length and standard height on the base standards of 0.18 m.
- In each tie position, at least two wall ties or one triangulated tie are to be fitted in every fifth bay.
- For use in Flex 75 for Load Class LC3
  Flex 100 for Load Class LC4
  Live load on one scaffold level.
- Scaffold in front of open or closed facade (for open facades up to 60% of the visible area can be openings).
- The tables show the tie forces and the support forces.
- For scaffolds with 5 or more bays, the following two variants are permissible:

or

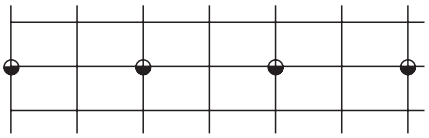


Wall ties replaced by triangulated ties on all levels:
For basic variants 1 and 3 for Flex 75 and 1 for Flex 100, the tie patterns with wall ties (index a) show the alternatives with triangulated ties (index b).
The alternatives are not shown for basic variants 2 and 4. In that arrangement the wall ties can be replaced by triangulated ties (combined with single-standard wall ties) in all tie positions as shown below.

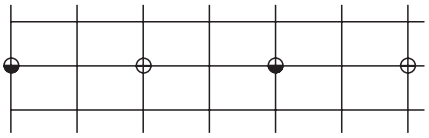


is replaced by

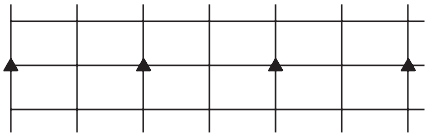
Wall ties replaced by triangulated ties on individual levels:
With all variants, wall ties can be replaced by triangulated ties in individual tie positions as shown below:



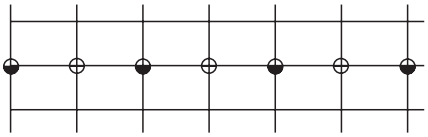
or



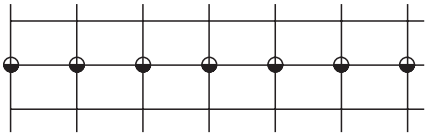
is replaced by



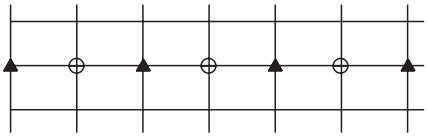
The process is similar for tie positions with external console brackets, with or without protection panels and protection roofs:



or



is replaced by



Scaffolds with fewer than 5 bays:
At least three wall ties or two triangulated ties are required in the tie position of protection panels, protection roofs, external or internal console brackets. Each edge standard has to be anchored at vertical spacing of no more than 4 m.

Scaffolds with fewer than 3 bays:
At least two triangulated ties are required in the tie position of protection panels.

Key

- Single-standard wall ties
- Wall ties
- Triangulated ties

Types of anchoring

Single-leg wall tie
For accommodating tension and compressive forces at right angles to the facade ($A_{\perp}$).

Fasten Wall Tie UWT (**46**) onto the inner standard (**17**) with a standard coupler (**48**).
(Fig. D2.03 + D2.04)

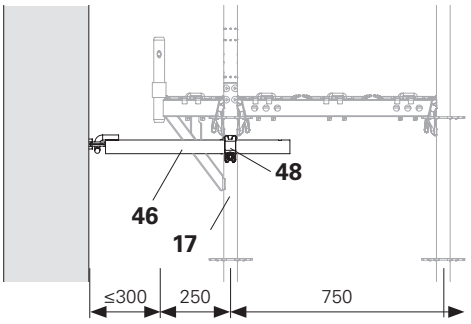


Fig. D2.03 Section

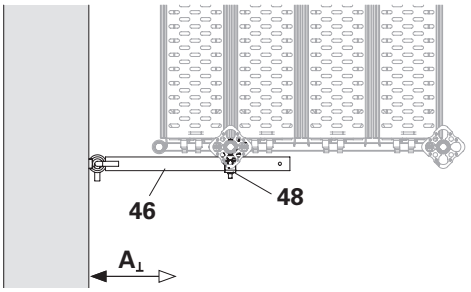
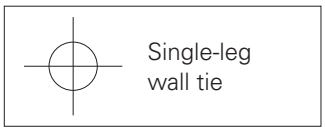


Fig. D2.04 Top view



Wall tie (multi-standard)
For accommodating tension and compressive forces at right angles and parallel to the facade ($A_{\perp}$, $A_{\parallel}$).

Fasten Wall Tie UWT (**46**) onto the inner standard (**17a**) and outer standard (**17b**) with one standard coupler in each case.

Components

17	Standard UVR-2 200
48	Standard Coupler RA 48/48
46	Wall Tie UWT

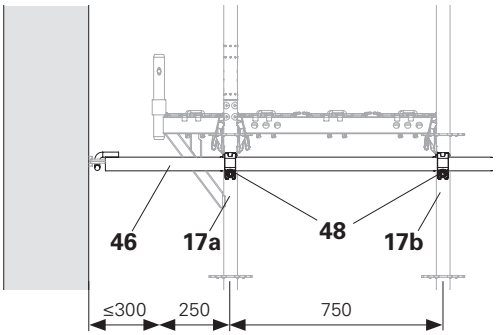


Fig. D2.05 Section

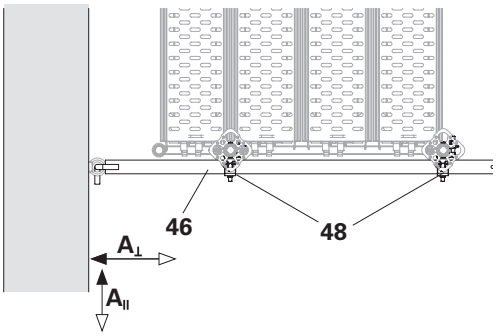
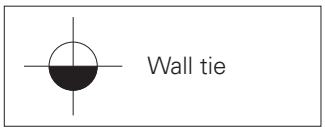


Fig. D2.06 Top view



Triangulated tie
For accommodating tension and compressive forces at right angles and parallel to the facade ($A_{\perp}$, $A_{\parallel}$).

Attach two Wall Ties UWT (**46**) below at approx. 45° to the ledger axis.
Attach both wall ties to the inner standard (**17**) with standard couplers (**48**).
(Fig. D2.07 + D2.08)

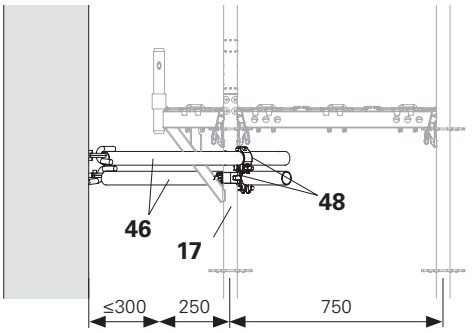
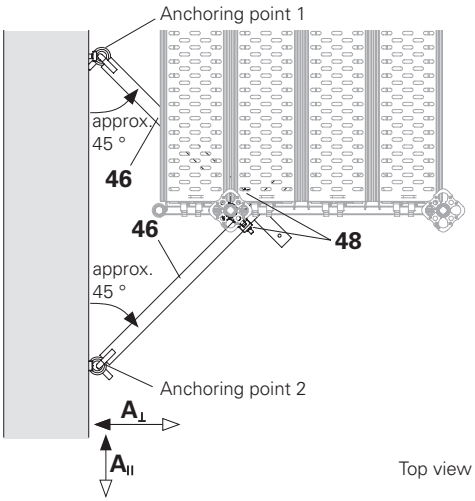


Fig. D2.07 Section





Top view

Fig. D2.08

Pressure-resistant support
Only for accommodating compressive forces at right angles to the facade ($A_{\perp}$).

Fasten Wall Tie UWT (**46**) onto the inner standard (**17**) with a standard coupler (**48**). The tube end without a hook is positioned obtusely against the wall.
(Fig. D2.09 + D2.10)

Components

117	Standard UVR-2 200
48	Standard Coupler RA 48/48
46	Wall Tie UWT

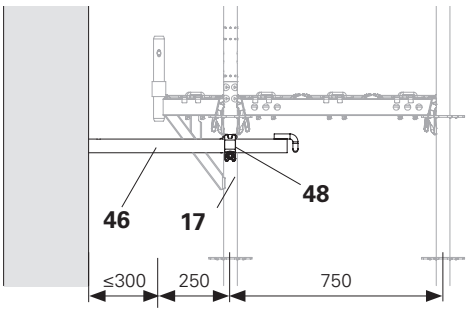
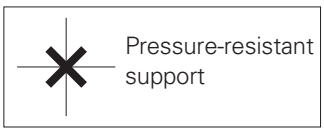


Fig. D2.09 Section



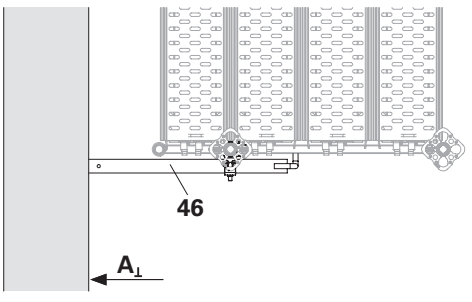


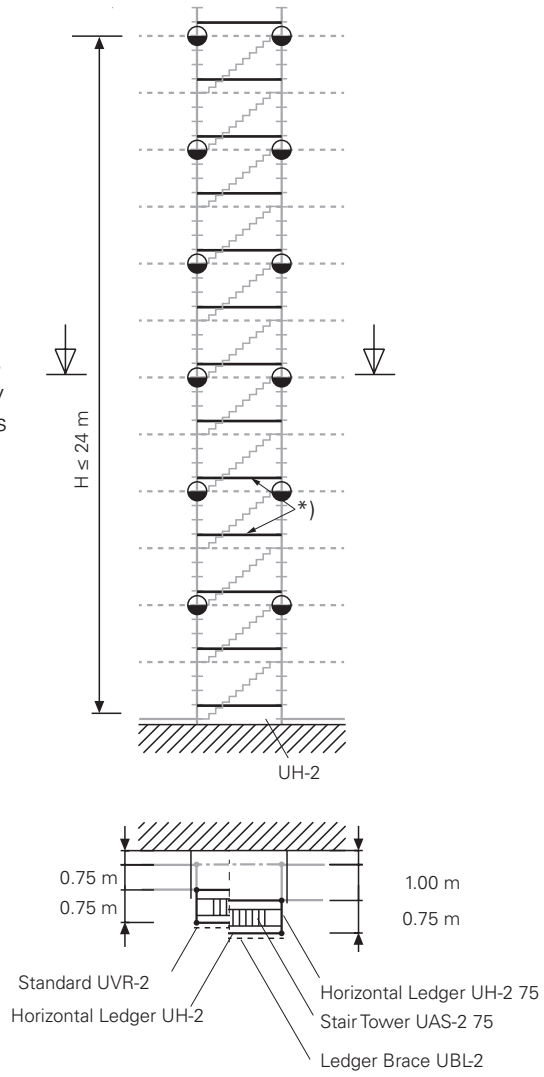
Fig. D2.10 Top view

External scaffold access

Brace the external scaffold access bay with Horizontal Ledger UH-2 as a longitudinal ledger 50 cm above the deck level.
The wall ties do not have to be extended up to the outer leg of the stair tower. It is sufficient to anchor the inner and outer legs of the basic scaffold.
The stair tower is connected with Horizontal Ledgers UH-2 75,
see Section "B8 Scaffold access" on page 78
The following rules apply:

- The tie patterns shown apply for all equipment variations.
- In the case of an access bay, always fit the ties in the basic scaffold. They always replace the ties in the access bay that are necessary for the basic scaffold.

Unclad
Tie pattern 4 m.
Standard configuration in front of open and closed facades.



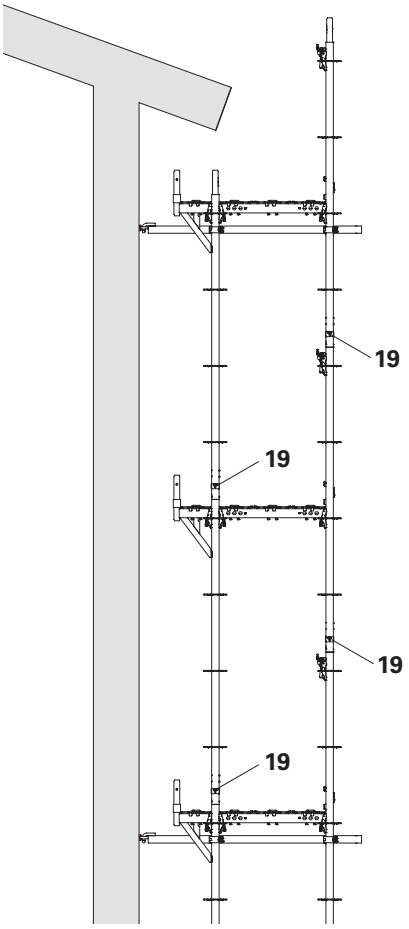
*) Horizontal Ledger UH-2 every 2.00 m

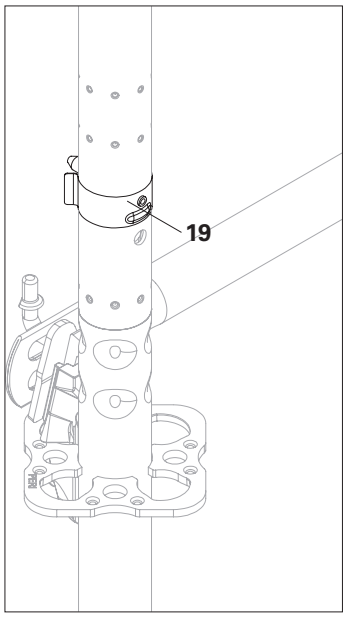
Note: lateral protection components not shown.

D3 Uplifting wind forces

For structures with roof inclination ≤ 20°, secure scaffolds to provide protection against lifting wind forces.

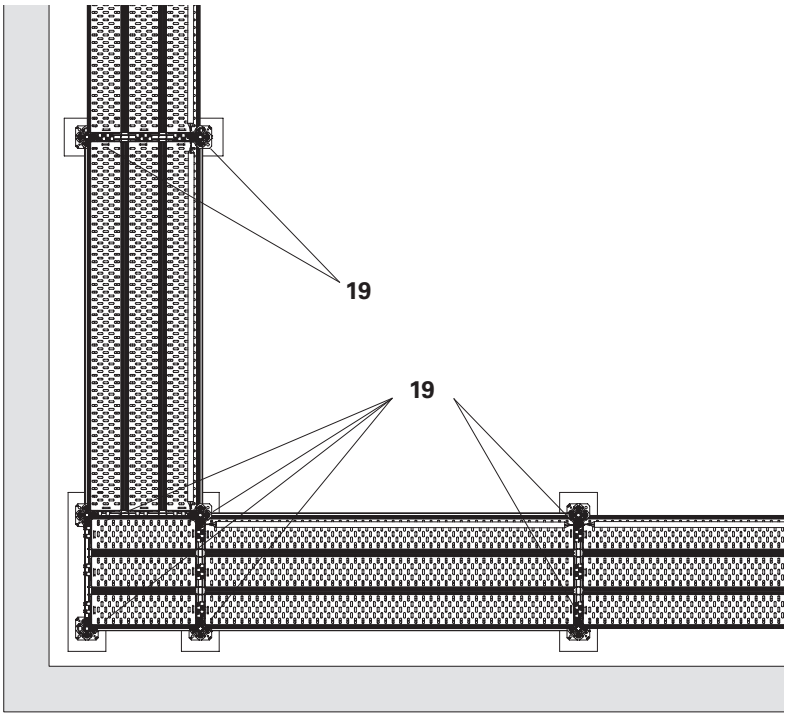
For this, secure all scaffold levels from the highest anchored level to the next anchored level by means of Locking Pins Ø 48/57 (**19**).





For structures with inside corners, secure scaffolds to provide protection against lifting wind forces.

- At the very least, secure the frame columns in the building corner, as well as the next frame column in each case.
- Secure all scaffold levels from the highest anchored level to the next anchored level by means of Locking Pins Ø 48/57 (**19**) or M10 x 70 bolts and nuts.



Note: lateral protection components not shown.

E1 Tie forces

Anchoring with wall ties

PERI UP Flex 75, use in Load Class 3 (2.0 kN/m²)						
			Tie forces for (+ = tension force/– = compressive force) **			
			Standard configuration for open facade		Standard configuration closed facade	
			Full-width wall tie			
Tie pattern	Cladding	Bay length [m]	$A_{\perp}$ [kN]	$A_{\parallel}$ [kN]	$A_{\perp}$ [kN]	$A_{\parallel}$ [kN]
8.0 m offset	without	2.50	+/-3.3	1.6*	+/-1.1	1.6*
		3.00	+/-3.8	1.8*	+/-1.3	1.8*

Anchoring with triangulated ties or single-standard wall ties

PERI UP Flex 75, use in Load Class 3 (2.0 kN/m²)								
			Tie forces for (**+** = tension force/**–** = compressive force) **					
			Standard configuration for open facade			Standard configuration for closed facade		
			Single-leg wall tie	Triangulated tie (per anchoring point)		Single-leg wall tie	Triangulated tie (per anchoring point)	
Tie pattern	Cladding	Bay length [m]	$A_{\perp}$ [kN]	$A'_{\perp}$ [kN]	$A'_{\parallel}$ [kN]	$A_{\perp}$ [kN]	$A'_{\perp}$ [kN]	$A'_{\parallel}$ [kN]
8.0 m offset	without	2.50	+/-3.4	+/-2.3	2.3	+/-1.1	+/-2.3	2.3
		3.00	+/-3.8	+/-2.7	2.7	+/-1.3	+/-2.7	2.7

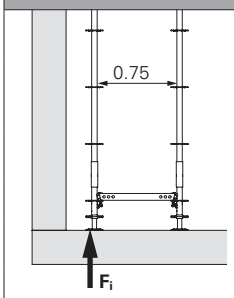
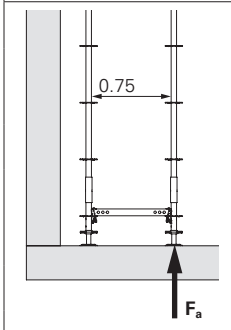
open facade vs. closed facade depends on ratio of gross visible area of the facade A_g to net visible area of the facade with openings deducted A_n:
$A_n/A_g = 1.0$: closed facade
$A_n/A_g = 0.4 \leq x < 1.0$: open facade

** For protection panels, use whichever of the "open" and "closed" facade standard configurations is the worse.

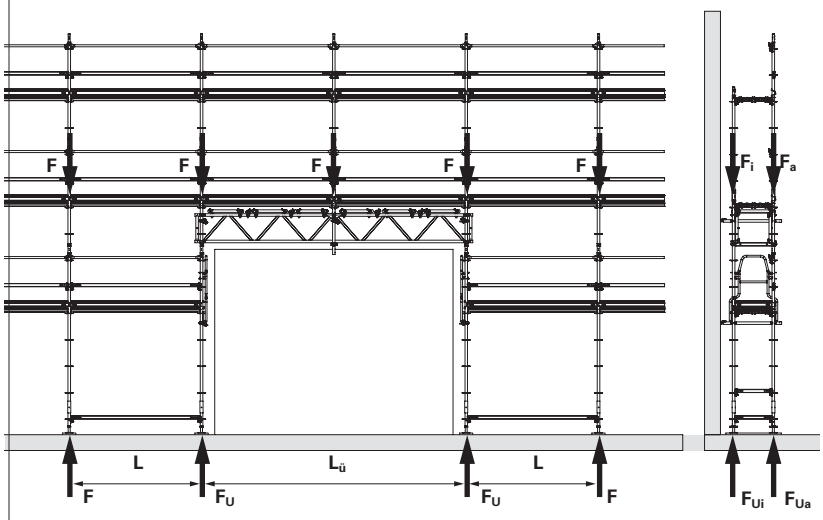
* If there is only one full-width wall tie on every fourth frame column (see for example basic variant 1 a and variant 2), multiply the value in the table by 1.5.

E2 Support forces

Support forces of the standards

PERI UP Flex 75, use in Load Class 3 (2.0 kN/m²)					
	Equipment	**Bay length [m]**	**Structure height**		
			24 m	**16 m**	**8 m**
	**Inner leg**				
			F_i [kN]	**F_i** [kN]	**F_i** [kN]
	without internal console brackets	2.5	9.1	7.8	7.0
		3.0	10.5	9.0	7.5
	with Internal Console Brackets UCB 25	2.5	12.9	10.9	9.5
		3.0	14.5	12.3	10.0
	**Outer leg**				
			F_a [kN]	**F_a** [kN]	**F_a** [kN]
	without external console bracket	2.5	10.5	8.8	6.6
		3.0	12.2	9.9	7.5
			in addition to F_a [kN]		
	Protection panel (in addition to the leg loads)	2.5	0.2		
		3.0	0.2		

Pavement gantries/bridging

PERI UP Flex 75, use in Load Class 3 (2.0 kN/m²)			
Bridging			
	**Bay length L** [m]	**F_{Ua}** [kN]	**F_{Ui}** [kN]
	$L_ü$ = 5.0 m		
	2.50	1.50 x F_a	1.50 x F_i
	$L_ü$ = 6.0 m		
	3.00	1.50 x F_a	1.50 x F_i
	Select F_a and F_i for appropriate bay length L.		

Selecting the formwork girders
LC3 – 2.00 kN/m²

1. Determine the support forces for the inner and outer leg.
   To do so, read off the resulting values from Table "Support forces of the standards" on page 127, taking into account
   - Equipment,
   - Control field length,
   - Structure height

   and enter them here.

2. Specify the formwork girder.
   To do so, read off the permissible individual load in the middle of the bay from Table "Load-bearing capacity of the formwork girders" on page 117, taking into account:
   - required span,
   - type of formwork girder (material, length/height of construction),
   - bracing and anchoring distance,

   and enter it here.

3. Determine the number of formwork girders.
   To do so, compare the resulting support force (row 4 or 5) with the permissible individual load in the middle of the bay (row 9).
   In certain cases, a single formwork girder may not be sufficient for the resulting support force. In that case, fit a second formwork girder on the relevant side.



It is not permitted to have more than 2 formwork girders per scaffold side, i.e. max. 4 formwork girders per bridging.

Row	**Determination of support forces** "Support forces of the standards" on page 127	**Values**	**Example values**
1	Equipment		without internal console brackets with protection panel on outer leg
2	Bay length		3.0 m
3	Structure height up to height		16 m
4	**Resulting support force at inner leg**		**9.0 kN**
5	**Resulting support force at outer leg**		**10.2 kN**

Row	**Determination of the formwork girder** See Table "Load-bearing capacity of the formwork girders" on page 117	**Values**	**Example values**
6	Required span of the formwork girder		6 m
7	Formwork girder type		Steel ULS 50/625
8	Spacing of the lateral holders a		2 x 150 cm
9	**permissible individual load in middle of bay**		**17.5 kN**

Row	**Determination of number of formwork girders**	**Values**	**Example values**
10	Required number of formwork girders on the inner leg		1 pcs.
11	Required number of formwork girders on the outer leg		1 pcs.

Overview of equipment variations

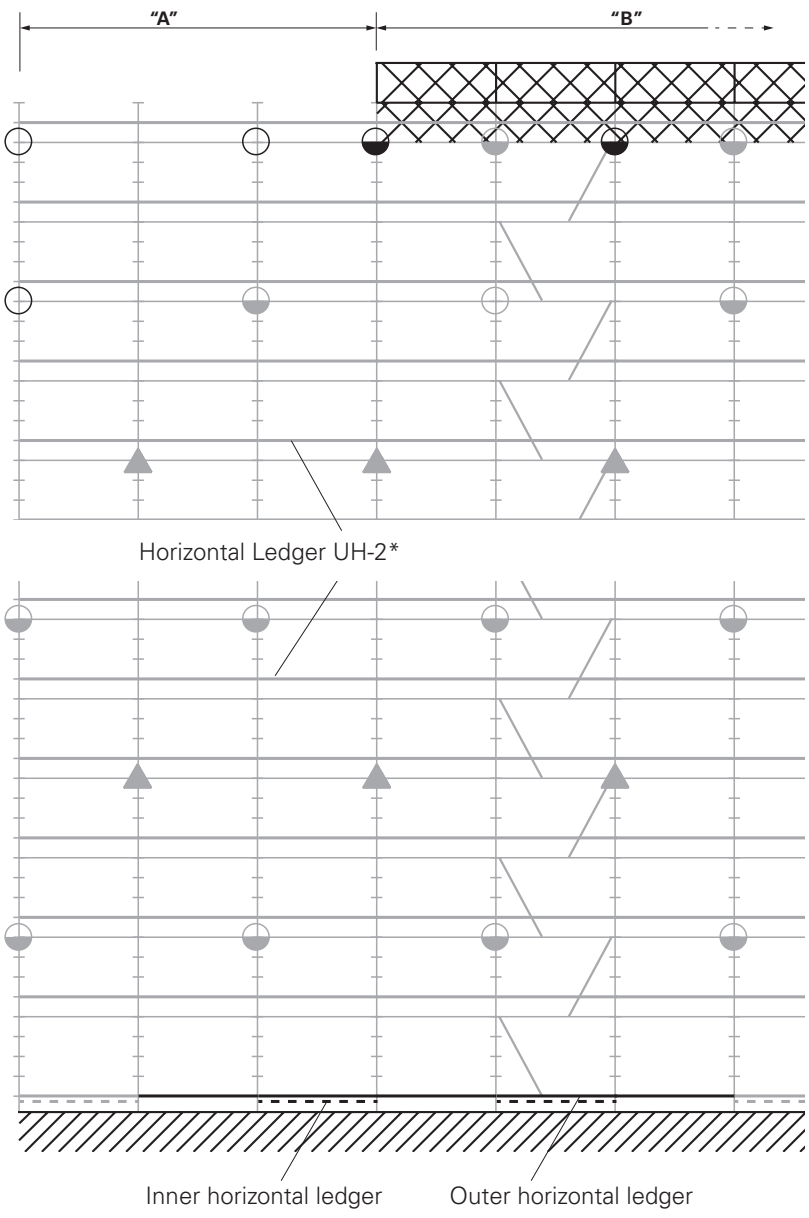
Scaffold height ≤ 24 m, Load Class 3

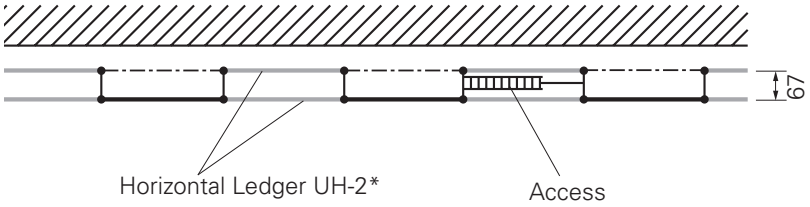
LC3 – 2.00 kN/m²	PERI UP Flex 75: LC3 – 2.0 kN/m²: Overview of equipment variations				
Equipment variation	1a/b	2	3a/b	4	
Page	132	134	135	137	
alternatively possible with ▲ tie	133		136		
Cladding	**without**				
Facade	**open or closed**				
Internal Console Brackets UCB 25	–	–	●	●	
Protection panel on outer leg or console bracket	●	●	●	●	
Bridging 5.0 m (2.5 + 2.5)	–	○	–	○	
Bridging 6.0 m (3.0 + 3.0)	–	●	–	●	

– Not permitted within this structural arrangement
● Possible within this structural arrangement – shown
○ Possible within this structural arrangement – not shown

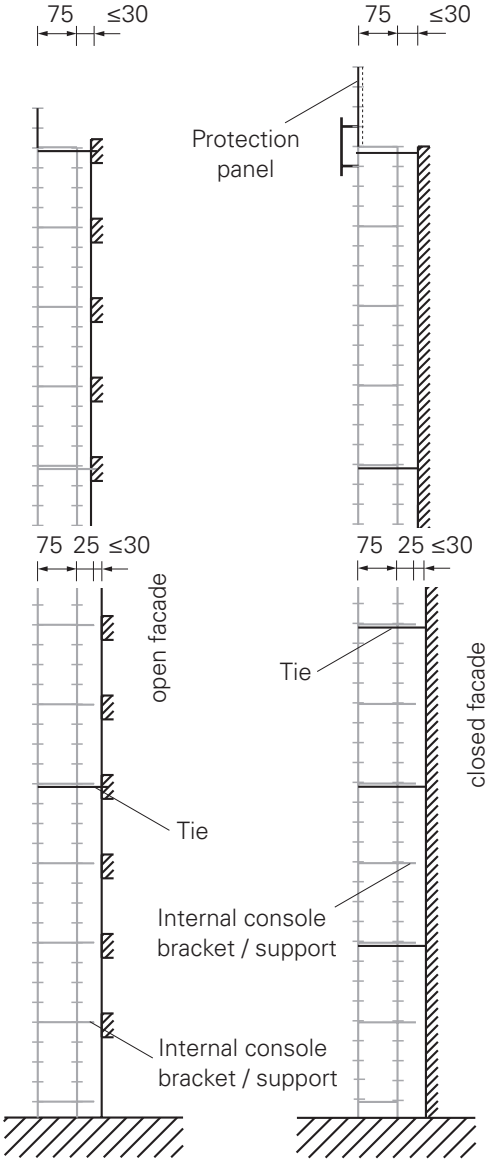
E4 Tie pattern

Key





*Unless otherwise stated, horizontal ledgers are only required in the outer panel



Tie types

- Single-leg wall tie
- Wall tie (multi-standard)
- Triangulated tie

Ties and bracing shown in grey are already included in the respective basic variant. Modified or additional ties and bracing are shown in black.

All tie patterns illustrated are shown as a continuous scaffold with a left-hand edge post. There is no separation between the areas "A" and "B". At the right-hand edge of the illustration, the scaffold continues to run as intended.

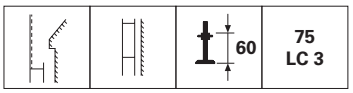
E4 Tie pattern

Meanings of the pictograms

75 LC 3	PERI UP Flex 75 Load Class 3 (2.0 kN/m²)
	Maximum spindle extension height h (incl. plate and nut)
	without console brackets
Extension console brackets	
	Internal console brackets UC 25 or UCB 25
Protection panel	
	on standard
Bridging	
	6 m, with formwork girders

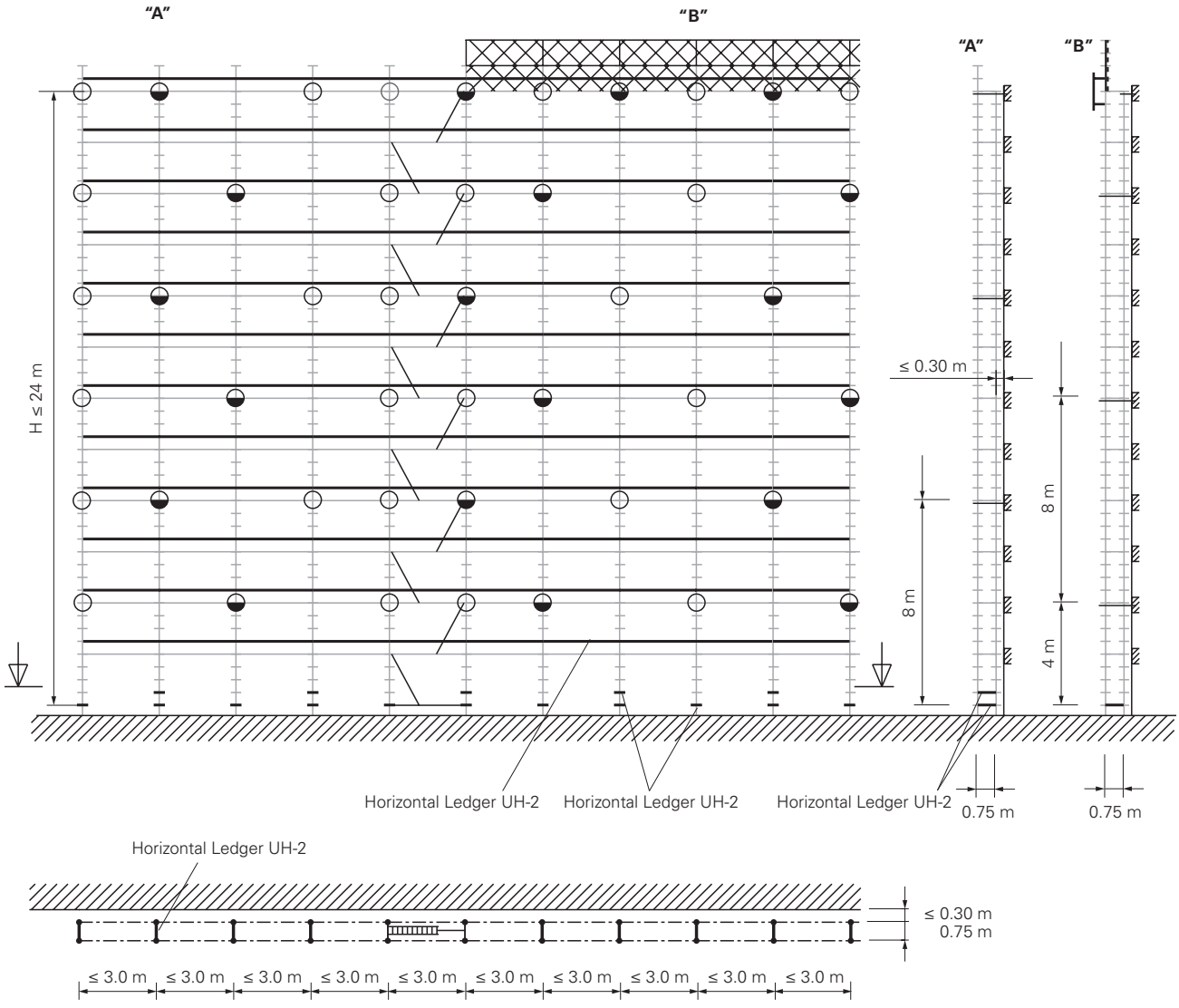
E4 Tie pattern

Graphical tie pattern
PERI UP Flex 75 ≤ 24 m



Basic variant 1a/LC3
Standard configuration:
unclad scaffold in front of open or closed facade.

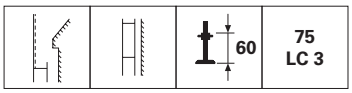
8 m offset tie pattern



Note: lateral protection components not shown.

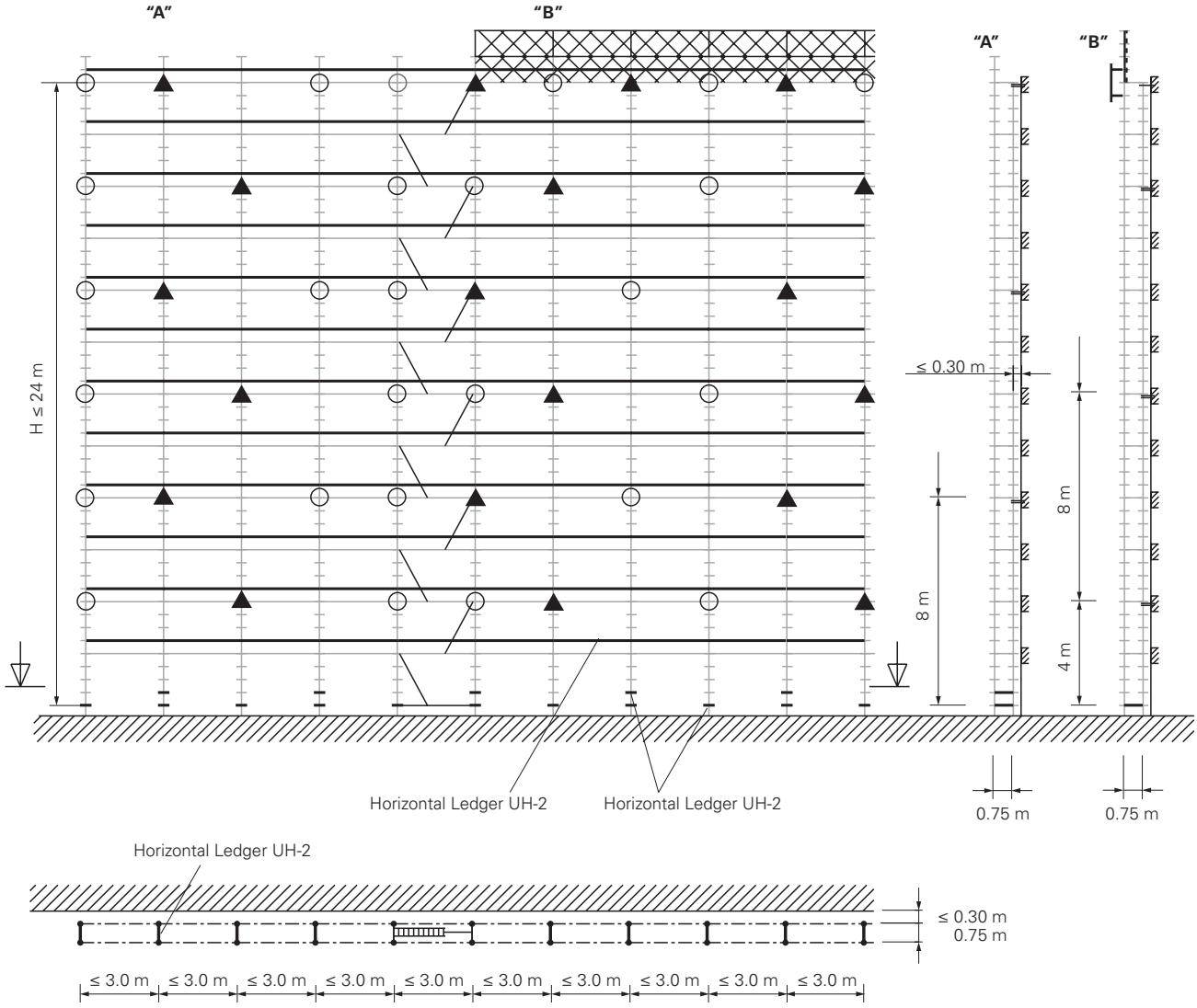
- Single-leg wall tie
- Wall tie

PERI UP Flex 75 ≤ 24 m



Basic variant 1b/LC3
Standard configuration:
unclad scaffold in front of open or closed facade.

8 m offset tie pattern

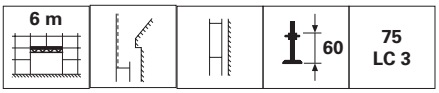


Note: lateral protection components not shown.

Single-leg wall tie
Triangulated tie

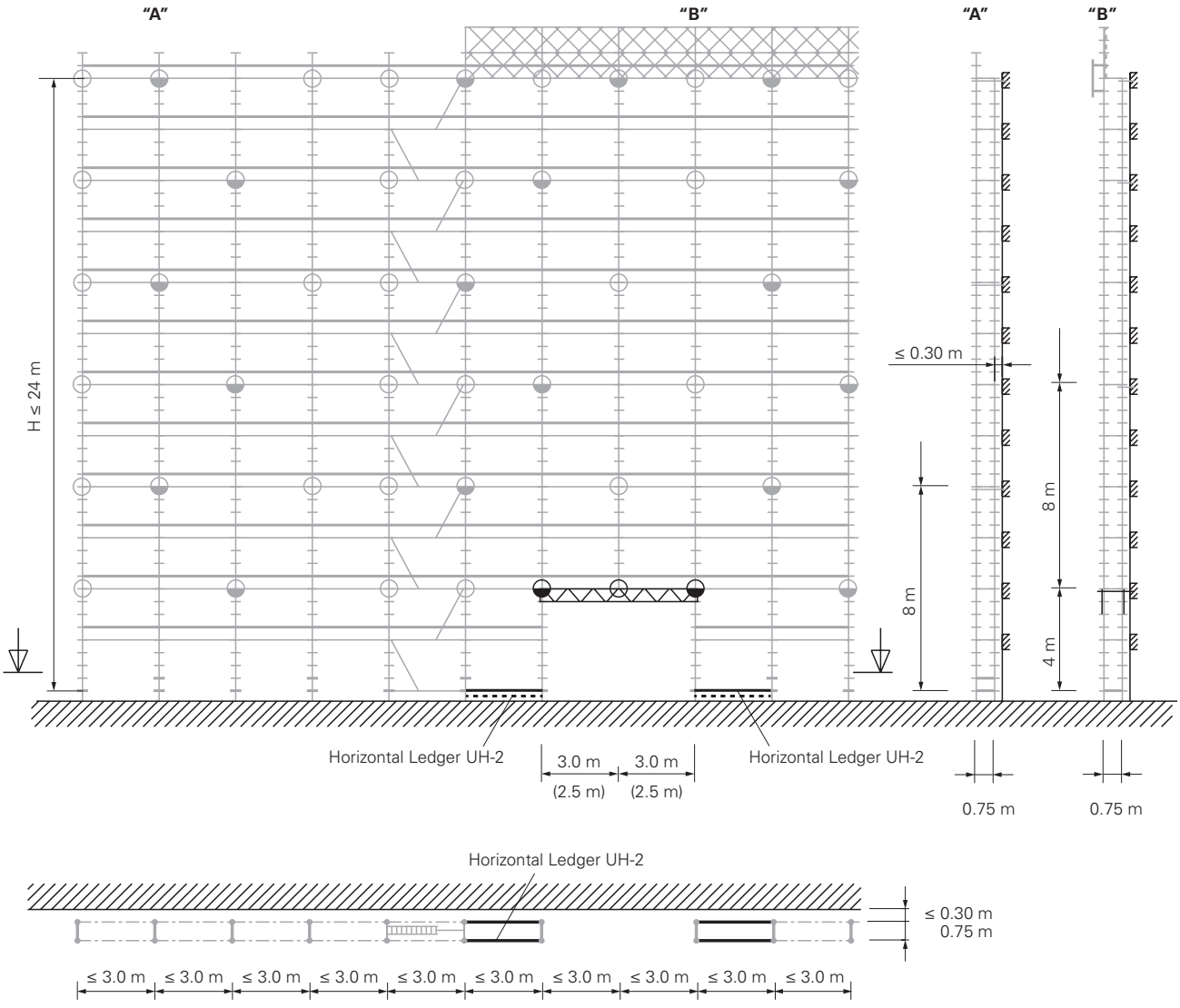
E4 Tie pattern

PERI UP Flex 75 ≤ 24 m



Variant 2/LC3, bridging
Standard configuration without internal console bracket:
unclad scaffold in front of open or closed facade.

8 m offset tie pattern

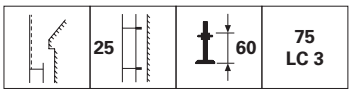


Note: lateral protection components not shown.

- Single-leg wall tie
- Wall tie

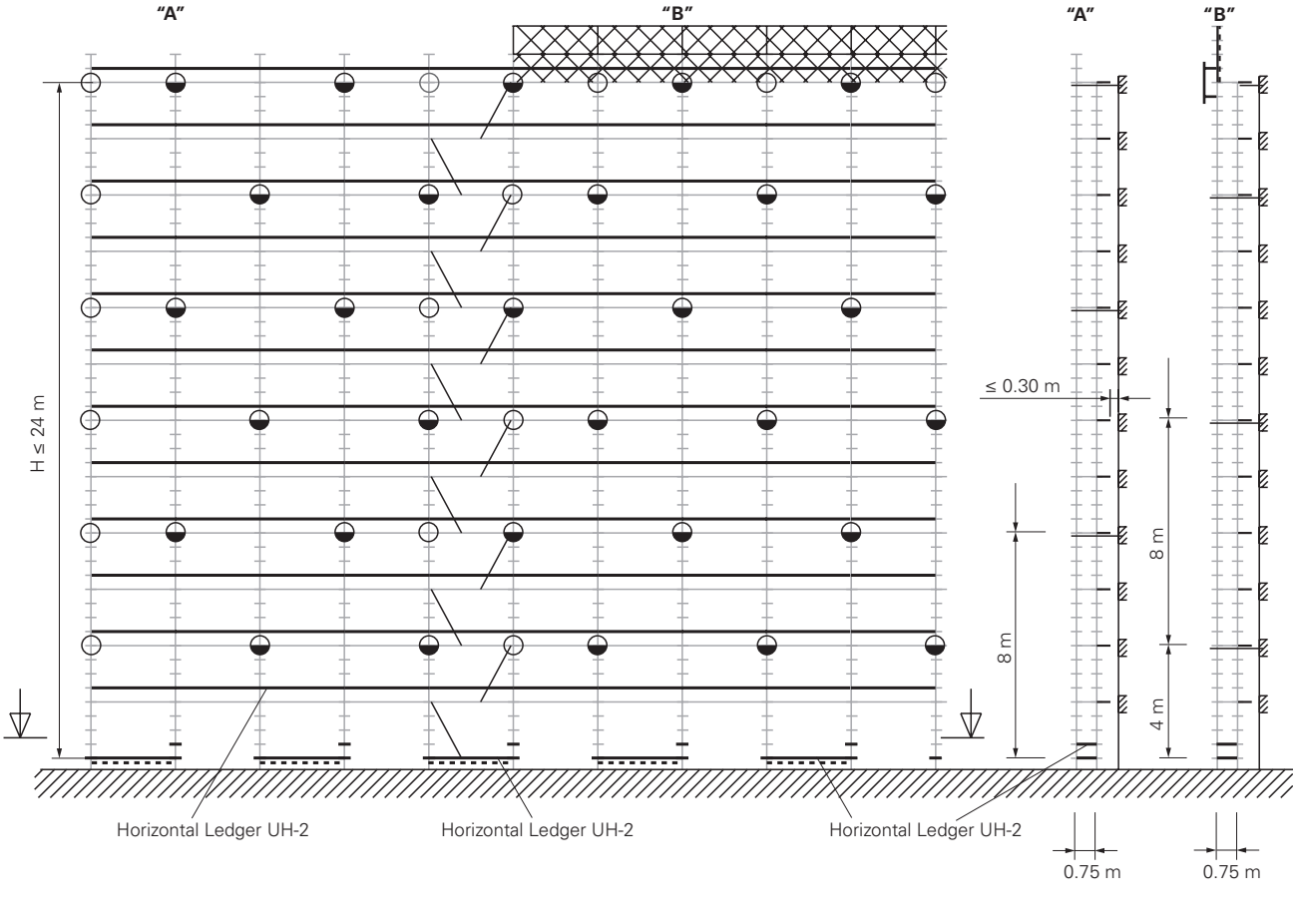
E4 Tie pattern

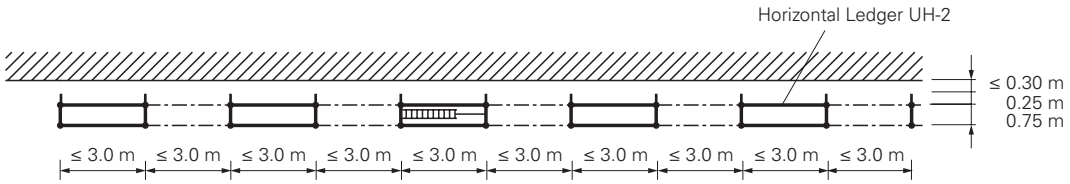
PERI UP Flex 75 ≤ 24 m



Variant 3a/LC3
Standard configuration with internal console brackets:
unclad scaffold in front of open or closed facade.

8 m offset tie pattern



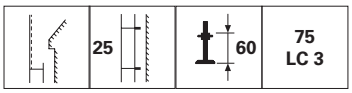


Note: lateral protection components not shown.

- Single-leg wall tie
- Wall tie

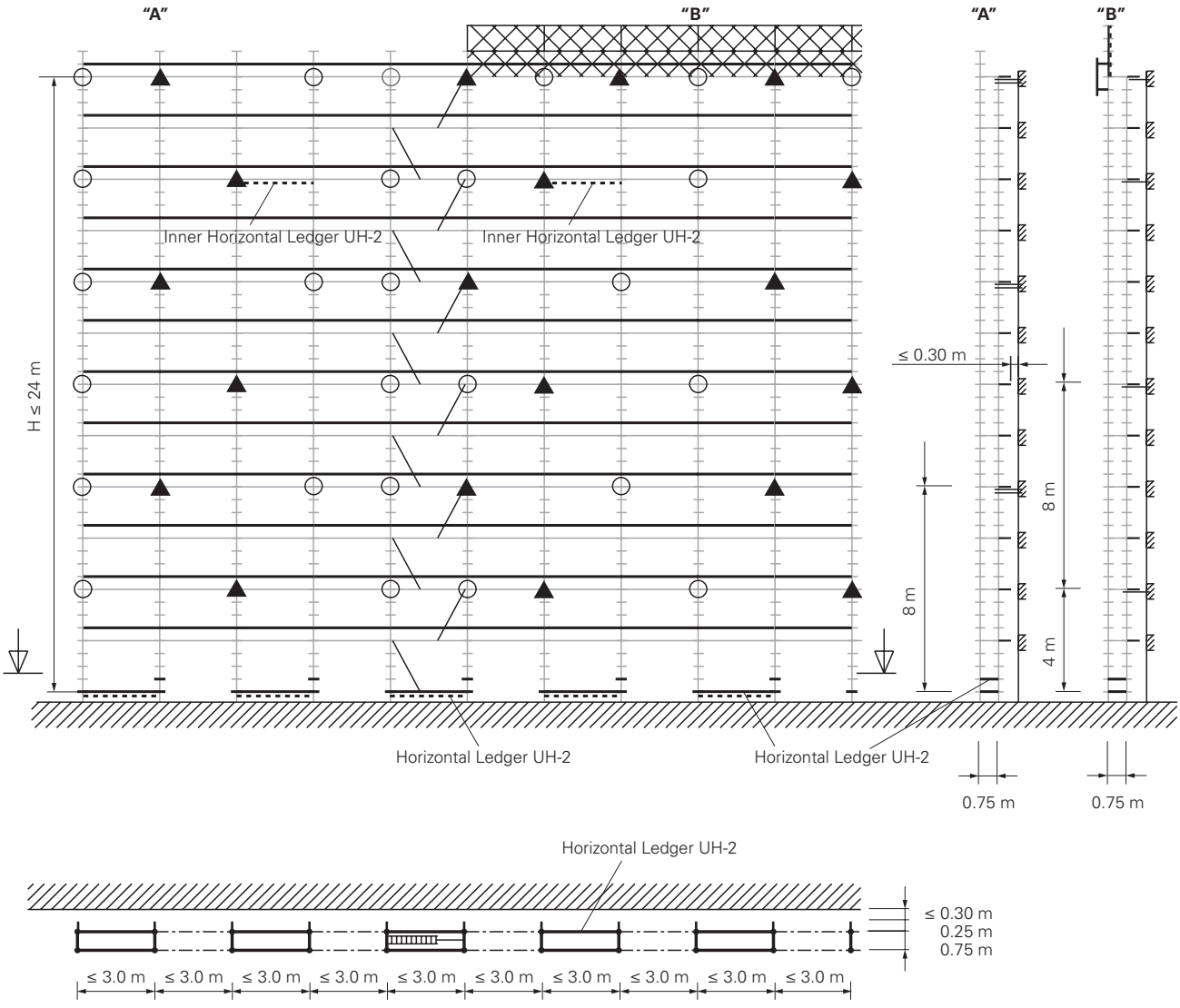
E4 Tie pattern

PERI UP Flex 75 ≤ 24 m



Variant 3b/LC3
Standard configuration with internal console brackets:
unclad scaffold in front of open or closed facade.

8 m offset tie pattern

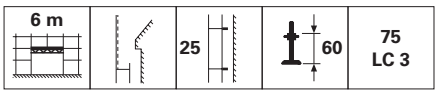


Note: lateral protection components not shown.

Single-leg wall tie
Triangulated tie

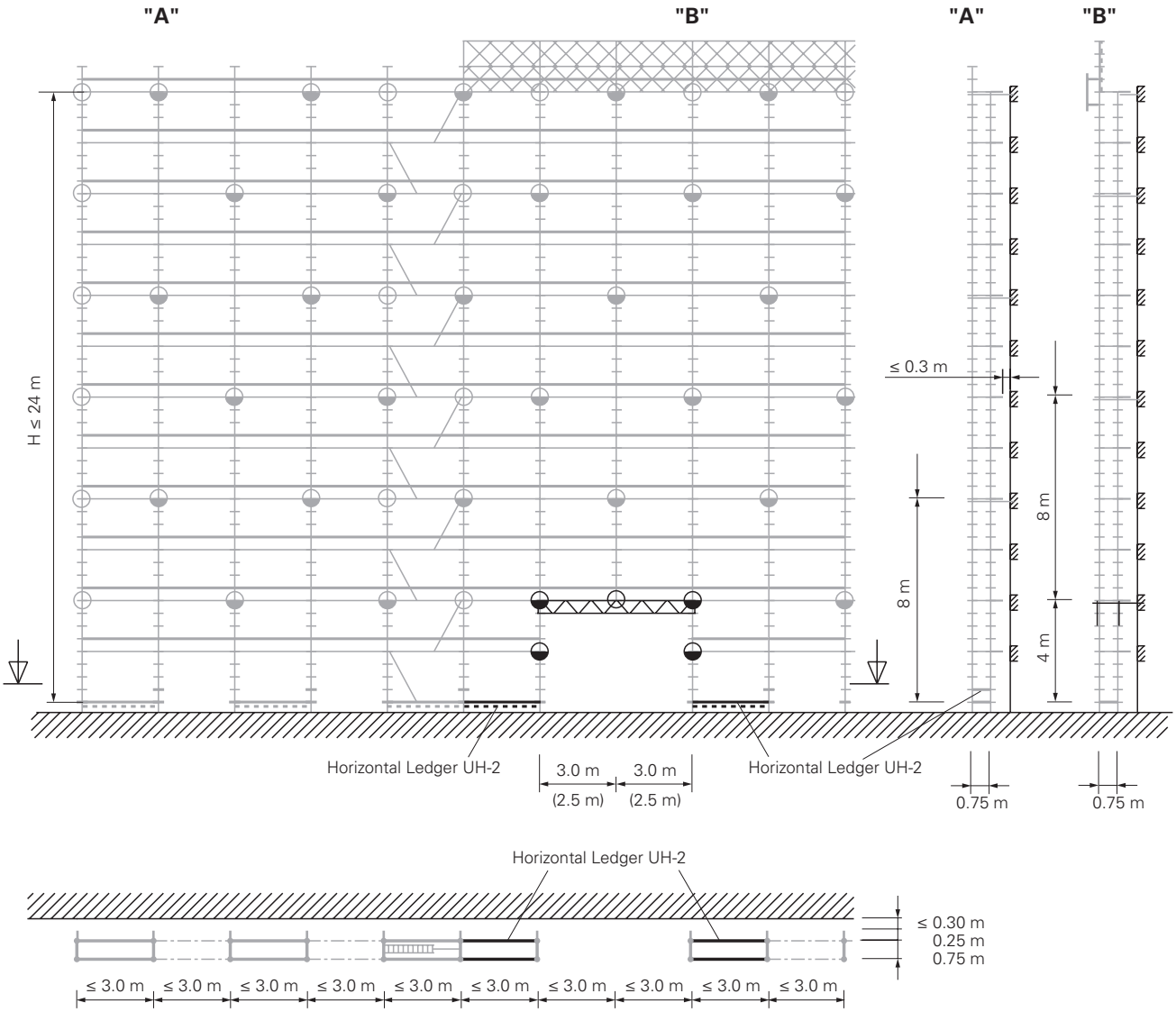
E4 Tie pattern

PERI UP Flex 75 ≤ 24 m



Variant 4/LC3, bridging
Standard configuration with internal console bracket:
unclad scaffold in front of open or closed facade.

8 m offset tie pattern



Note: lateral protection components not shown.

⊕ Single-leg wall tie
⊕ Wall tie

F1 Tie forces

Anchoring with wall ties

PERI UP Flex 100, use in Load Class 4 (3.0 kN/m²)						
			Tie forces for (+ = tension force/– = compressive force) *			
			Standard configuration partially open facade		Standard configuration closed facade	
			Full-width wall tie			
Tie pattern	Cladding	Bay length [m]	⌖ $A_{\perp}$ [kN]	⌖ $A_{\parallel}$ [kN]	⌖ $A_{\perp}$ [kN]	⌖ $A_{\parallel}$ [kN]
8.0 m	without	2.50	not possible		+/-1.8	2.1
		3.00			+/-2.1	2.1
4.0 m	without	2.50	+/-2.7	2.1	+/-0.9	2.1
		3.00	+/-3.2	2.1	+/-1.1	2.1

Anchoring with triangulated ties or single-standard wall ties

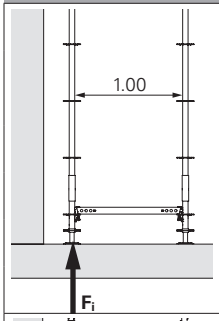
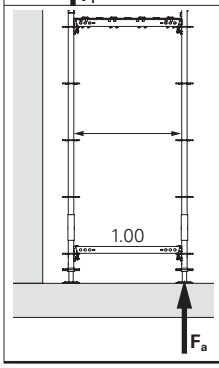
PERI UP Flex 100, use in Load Class 4 (3.0 kN/m²)								
			Tie forces for (+ = tension force/– = compressive force) *					
			Standard configuration partially open facade			Standard configuration for closed facade		
			Single-leg wall tie	Triangulated tie (per anchoring point)		Single-leg wall tie	Triangulated tie (per anchoring point)	
Tie pattern	Cladding	Bay length [m]	⌖ $A_{\perp}$ [kN]	✦ $A'_{\perp}$ [kN]	✦ $A'_{\parallel}$ [kN]	⌖ $A_{\perp}$ [kN]	✦ $A'_{\perp}$ [kN]	✦ $A'_{\parallel}$ [kN]
8.0 m	without	2.50	not possible			+/-2.3	+/-2.4	2.4
		3.00				+/-2.7	+/-2.4	2.4
4.0 m	without	2.50	+/-2.7	+/-3.8	3.8	+/-0.9	+/-3.8	3.8
		3.00	+/-3.2	+/-3.8	3.8	+/-1.1	+/-3.8	3.8

open facade vs. closed facade depends on ratio of gross visible area of the facade A_g to net visible area of the facade with openings deducted A_n:
$A_n/A_g = 1.0$: closed facade
$A_n/A_g = 0.4 \leq x < 1.0$: open facade

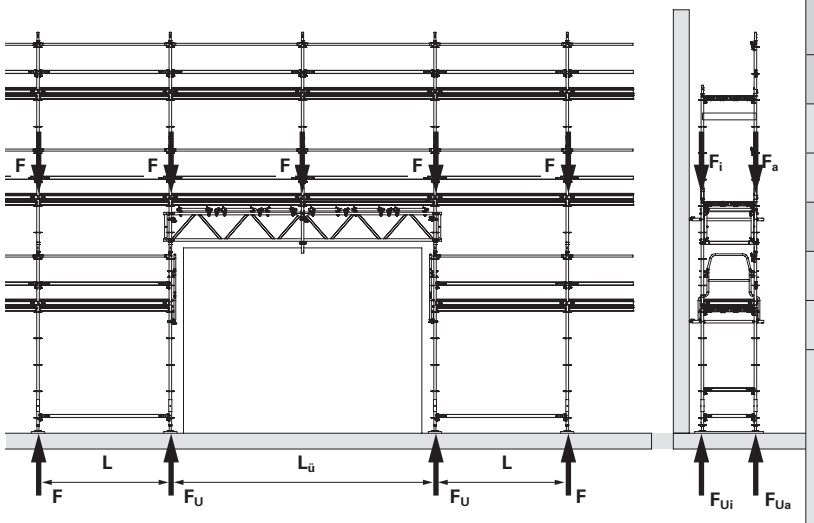
* For protection panels, use whichever of the "open" and "closed" facade standard configurations is the worse.

F2 Support forces

Support forces of the standards

PERI UP Flex 100, use in Load Class 4 (3.0 kN/m²)					
	Equipment	**Bay length [m]**	**Structure height**		
			24 m	**16 m**	**8 m**
	**Inner leg**				
			F_i [kN]	**F_i** [kN]	**F_i** [kN]
	without internal console brackets	2.5	11.7	9.9	8.2
		3.0	13.6	11.7	9.7
	with Internal Console Brackets UCB 25	2.5	17.1	14.6	12.2
		3.0	20.0	17.2	14.4
	**Outer leg**				
			F_a [kN]	**F_a** [kN]	**F_a** [kN]
	without external console bracket	2.5	14.8	12.5	10.3
		3.0	17.3	14.7	12.1
			in addition to F_a [kN]		
	Protection panel (in addition to the leg loads)	2.5	0.2		
		3.0	0.2		

Pavement gantries/bridging

PERI UP Flex 100, use in Load Class 4 (3.0 kN/m²)			
Bridging			
	**Bay length L** [m]	**F_{Ua}** [kN]	**F_{Ui}** [kN]
	$L_ü$ = 5.0 m		
	2.50	1.50 x F_a	1.50 x F_i
	3.00	1.40 x F_a	1.40 x F_i
	$L_ü$ = 6.0 m		
	2.50	1.70 x F_a	1.70 x F_i
	3.00	1.50 x F_a	1.50 x F_i
	Select F_a and F_i for appropriate bay length L.		

Selecting the formwork girders
LC4 – 3.00 kN/m²

1. Determine the support forces for the inner and outer leg.
   To do so, read off the resulting values from Table "Support forces of the standards" on page 139, taking into account
   - Equipment,
   - Control field length
   - Structure height

   and enter them here.

2. Specify the formwork girder.
   To do so, read off the permissible individual load in the middle of the bay from Table "Load-bearing capacity of the formwork girders" on page 117, taking into account:
   - required span,
   - type of formwork girder (material, length/height of construction),
   - bracing and anchoring distance,

   and enter it here.

3. Determine the number of formwork girders.
   To do so, compare the resulting support force (row 4 or 5) with the permissible individual load in the middle of the bay (row 9).
   In certain cases, a single formwork girder may not be sufficient for the resulting support force. In that case, fit a second formwork girder on the relevant side.



It is not permitted to have more than 2 formwork girders per scaffold side, i.e. max. 4 formwork girders per bridging.

Row	**Determination of support forces** See Table "Support forces of the standards" on page 139	**Values**	**Example values**
1	Equipment		without internal console brackets with protection panel on outer leg
2	Bay length		3.00 m
3	Structure height up to height		16 m
4	**Resulting support force at inner leg**		**11.7 kN**
5	**Resulting support force at outer leg**		**14.9 kN**

Row	**Determination of the formwork girder** See Table "Load-bearing capacity of the formwork girders" on page 117	**Values**	**Example values**
6	Required span of the formwork girder		6 m
7	Formwork girder type		Steel ULS 50/625
8	Spacing of the lateral holders a		2 x 150 cm
9	**permissible individual load in middle of bay**		**17.5 kN**

Row	**Determination of number of formwork girders**	**Values**	**Example values**
10	Required number of formwork girders on the inner leg		**1 pcs.**
11	Required number of formwork girders on the outer leg		**1 pcs.**

Overview of equipment variations

Scaffold height ≤ 24 m, Load Class 4

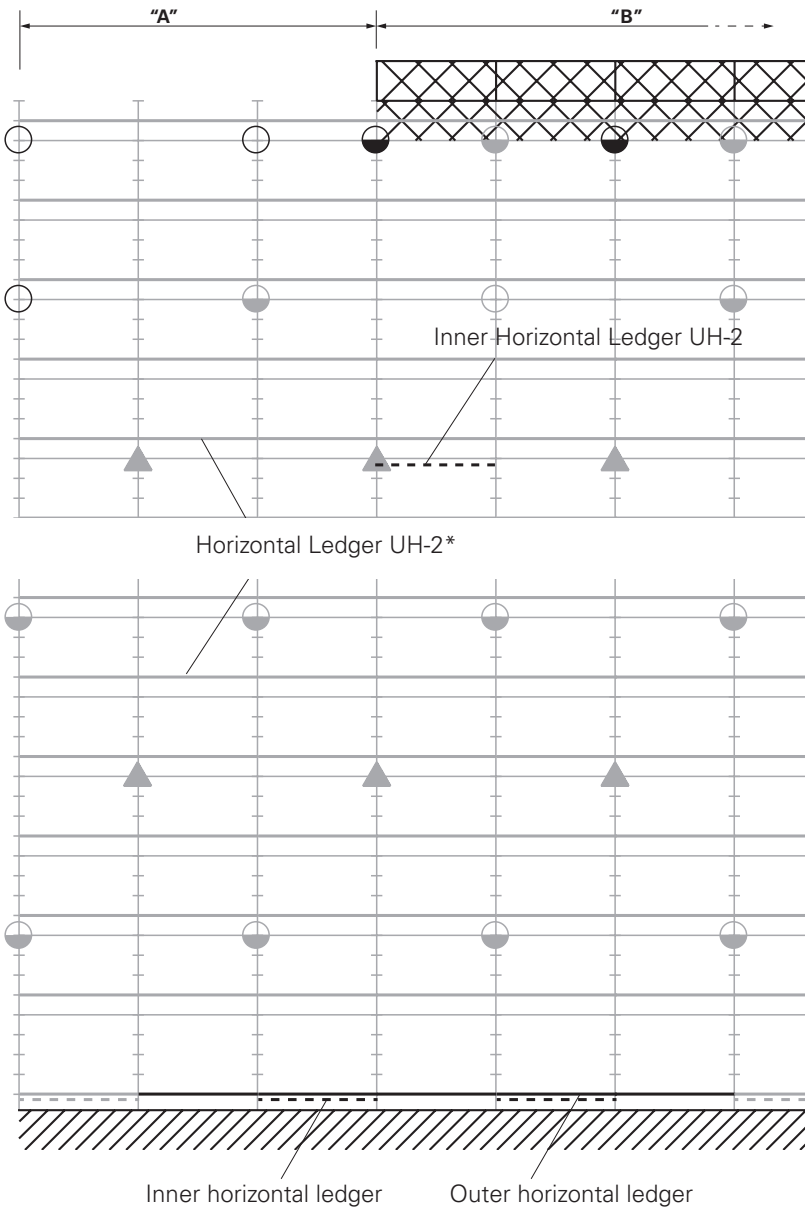
PERI UP Flex 100: LC4 – 3.0 kN/m²: Overview of equipment variations

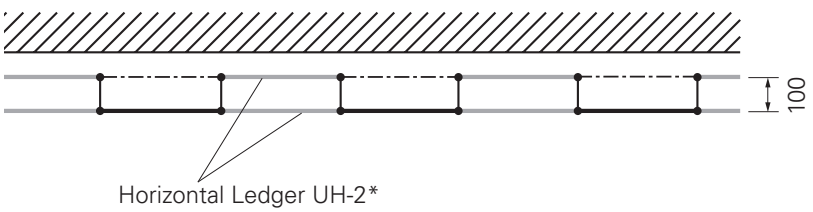
LC4 – 3.00 kN/m²				
	1a/b	2	3a/b	4
Page	144	148	150	152
alternatively possible with ▲ tie	146		151	
Cladding	**without**			
Facade	**open or closed**			
Internal Console Brackets UCB 25	–	–	●	●
Protection panel on outer leg	●	●	●	●
Bridging 5.0 m (2.5 + 2.5)	–	○	–	○
Bridging 6.0 m (3.0 + 3.0)	–	●	–	●

– Not permitted within this structural arrangement
● Possible within this structural arrangement – shown
○ Possible within this structural arrangement – not shown

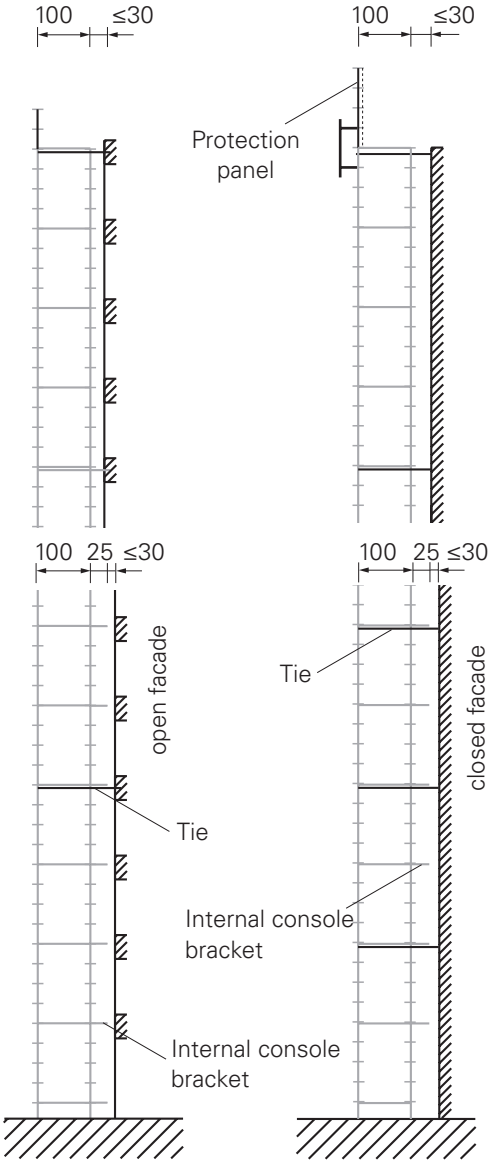
F4 Tie pattern

Key





*Unless otherwise stated, horizontal ledgers are only required in the outer panel



Tie types

- Single-leg wall tie
- Wall tie (multi-standard)
- Triangulated tie

Ties and bracing shown in grey are already included in the respective basic variant. Modified or additional ties and bracing are shown in black.

All tie patterns illustrated are shown as a continuous scaffold with a left-hand edge post. There is no separation between the areas "A" and "B". At the right-hand edge of the illustration, the scaffold continues to run as intended.

F4 Tie pattern

Meanings of the pictograms



PERI UP Flex 100
Load Class 4 (3.0 kN/m²)



Maximum spindle extension height h (incl. plate and nut)



without console brackets

Extension console brackets



Internal Console Brackets UCB 25

Protection panel



on standard

Bridging



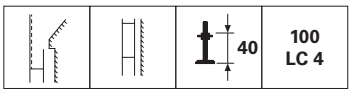
6 m, with formwork girders



For anchoring of staircases, see "External scaffold access" on page 123.

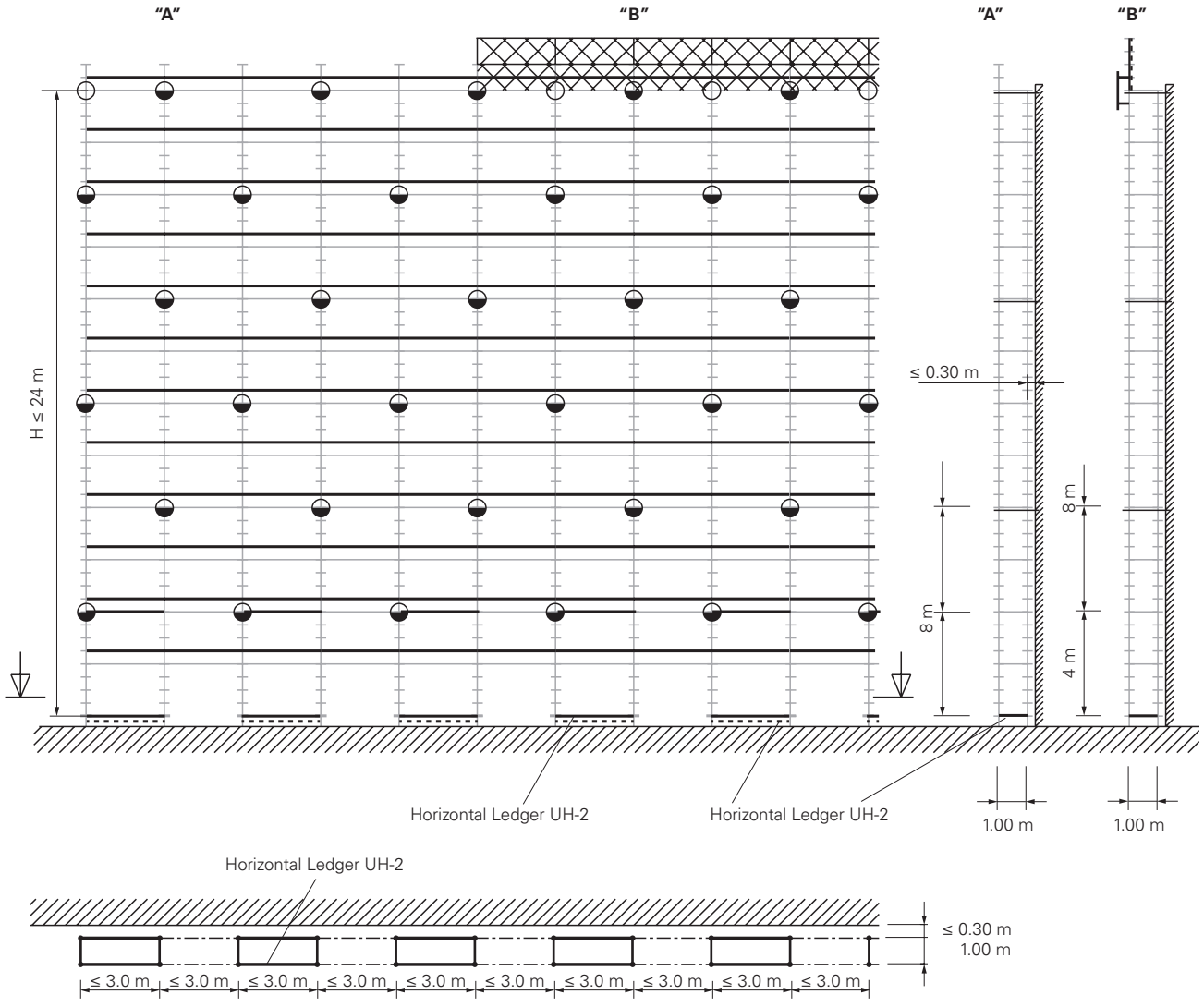
F4 Tie pattern

Graphical tie pattern
PERI UP Flex 100 ≤ 24 m



Basic variant 1a/LC4
Standard configuration:
unclad scaffold in front of **closed** facade.

8 m offset tie pattern

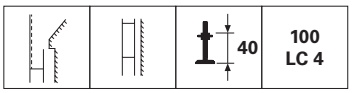


Note: lateral protection components not shown.

⊕ Single-leg wall tie
⊕ Wall tie

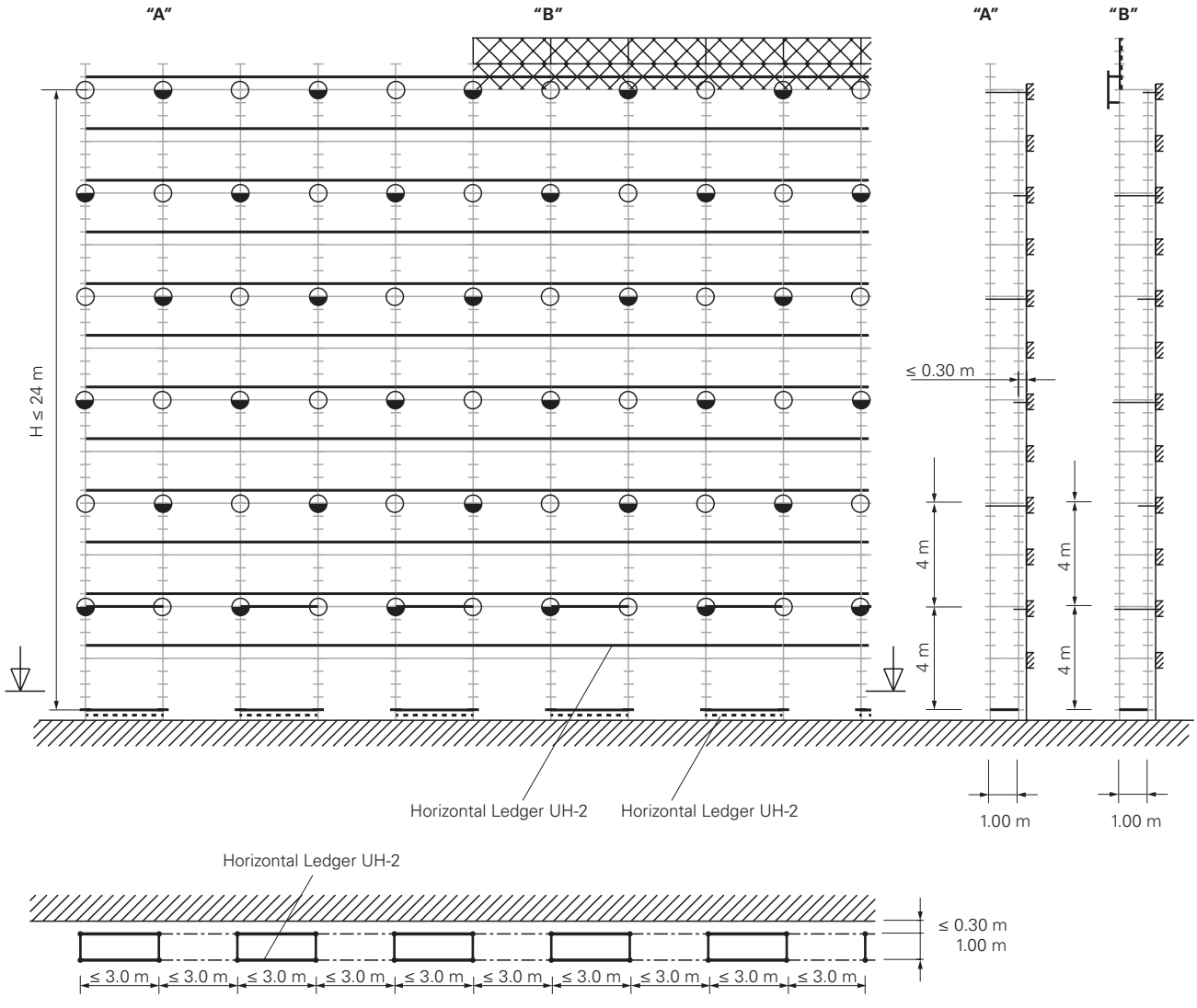
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 1 a/LC4
Standard configuration:
unclad scaffold in front of **open** facade.

4 m tie pattern



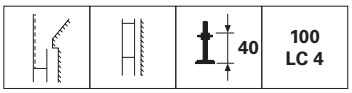
Note: lateral protection components not shown.

- Single-leg wall tie
- Wall tie

Flex 100

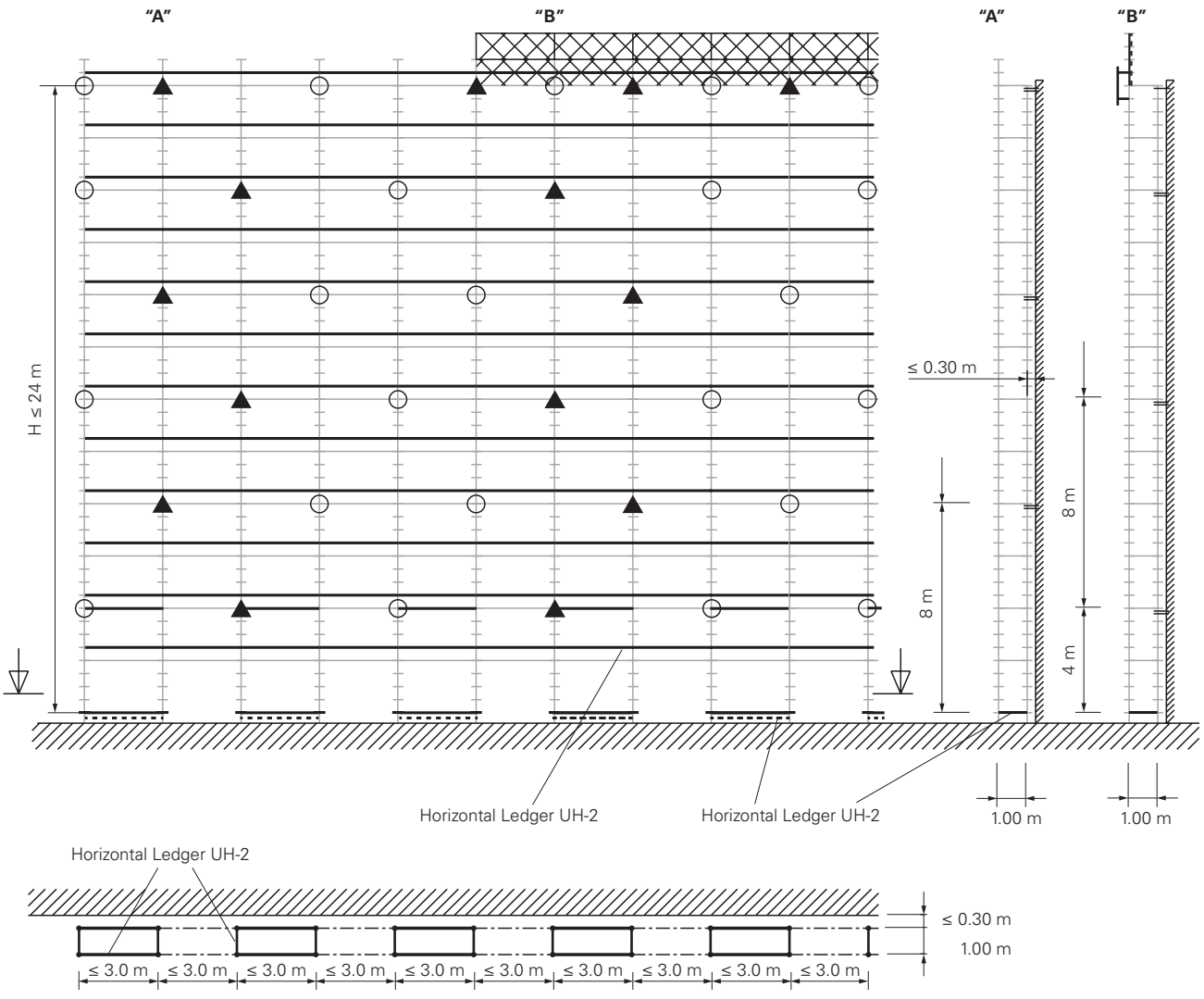
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 1b/LC4
Standard configuration:
unclad scaffold in front of **closed** facade

8 m offset tie pattern

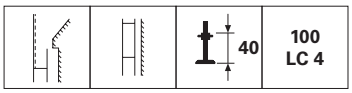


Note: lateral protection components not shown.

⊕ Single-leg wall tie
✦ Triangulated tie

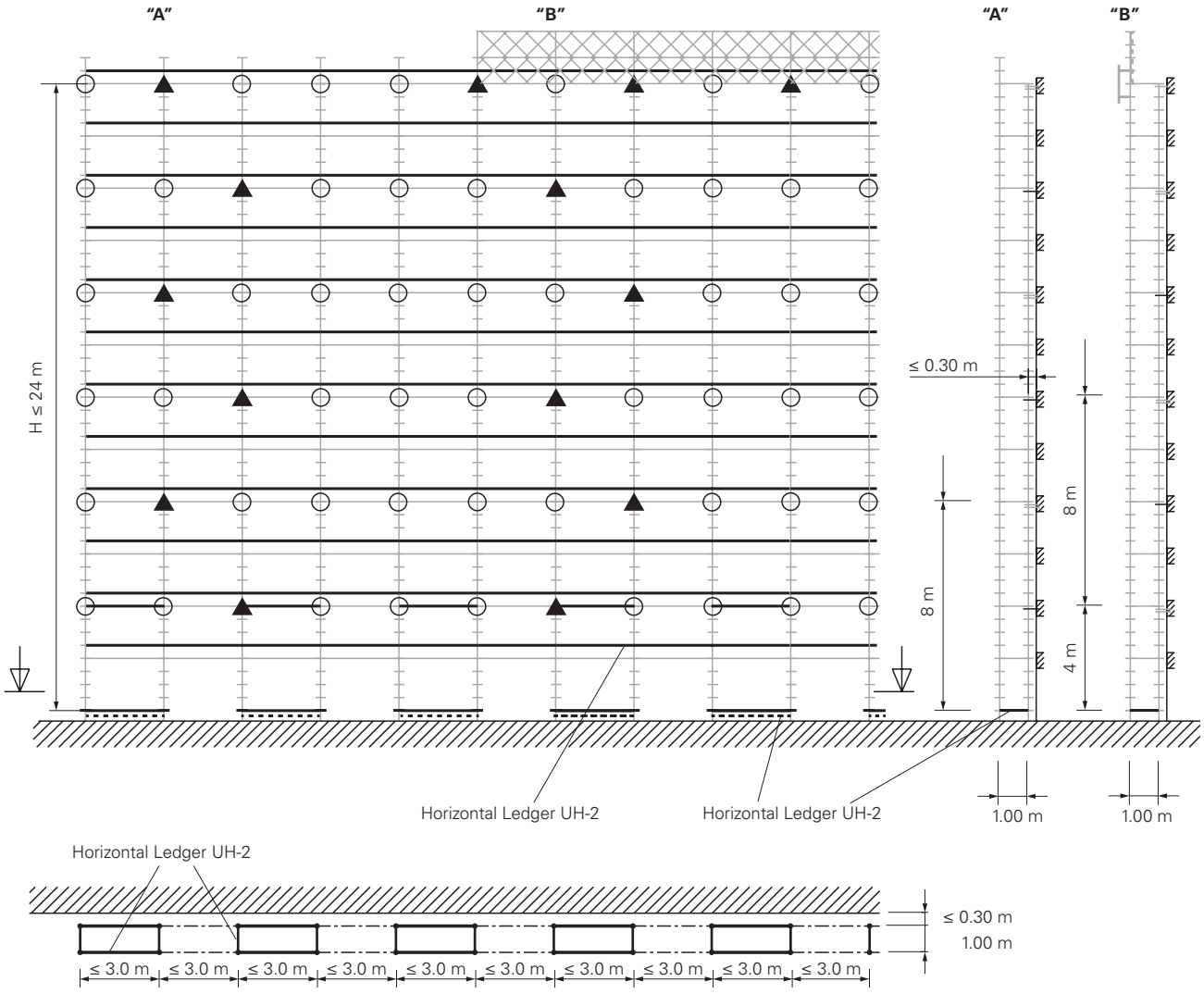
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 1b/LC4
Standard configuration:
unclad scaffold in front of **open** facade

4 m tie pattern



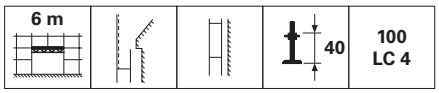
Note: lateral protection components not shown.

⊕ Single-leg wall tie
✦ Triangulated tie

Flex 100

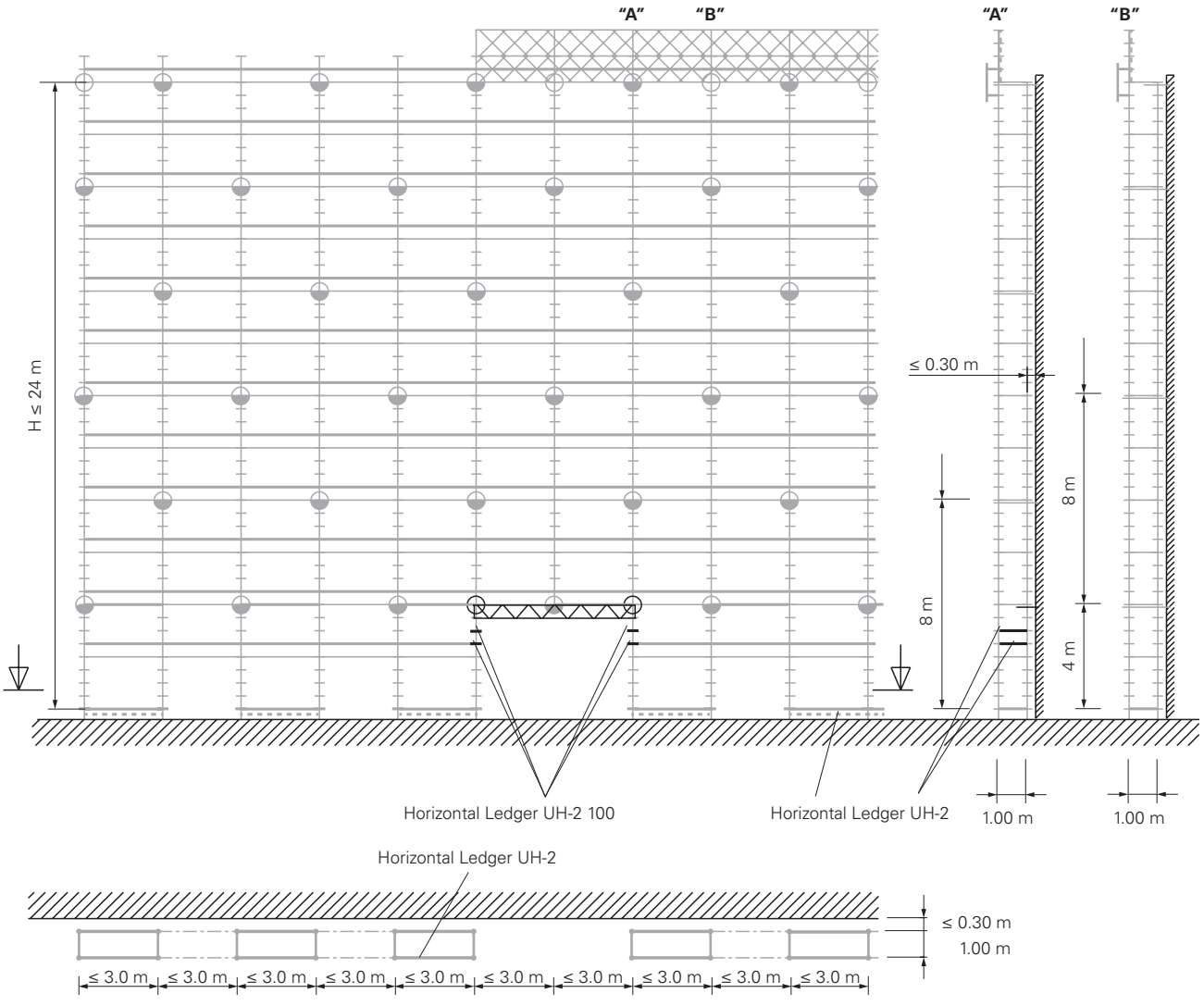
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 2/LC4, bridging
Standard configuration:
unclad scaffold in front of **closed** facade.

8 m offset tie pattern

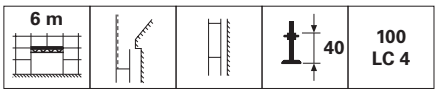


Note: lateral protection components not shown.

- Single-leg wall tie
- Wall tie
- Additional wall tie required for open facade

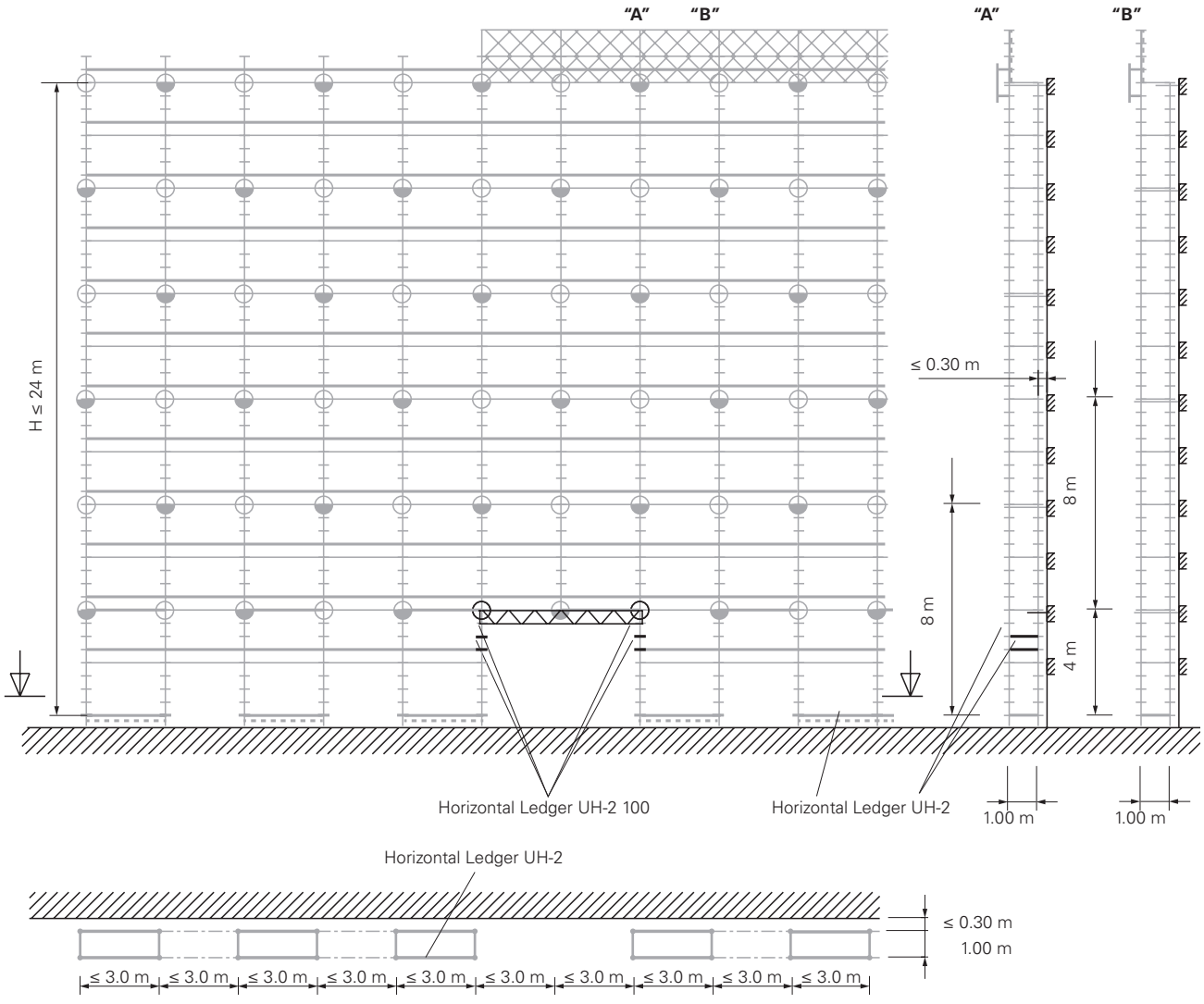
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 2/LC4, bridging
Standard configuration:
unclad scaffold in front of **open** facade.

4 m tie pattern



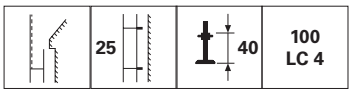
Note: lateral protection components not shown.

- Single-leg wall tie
- Wall tie

Flex 100

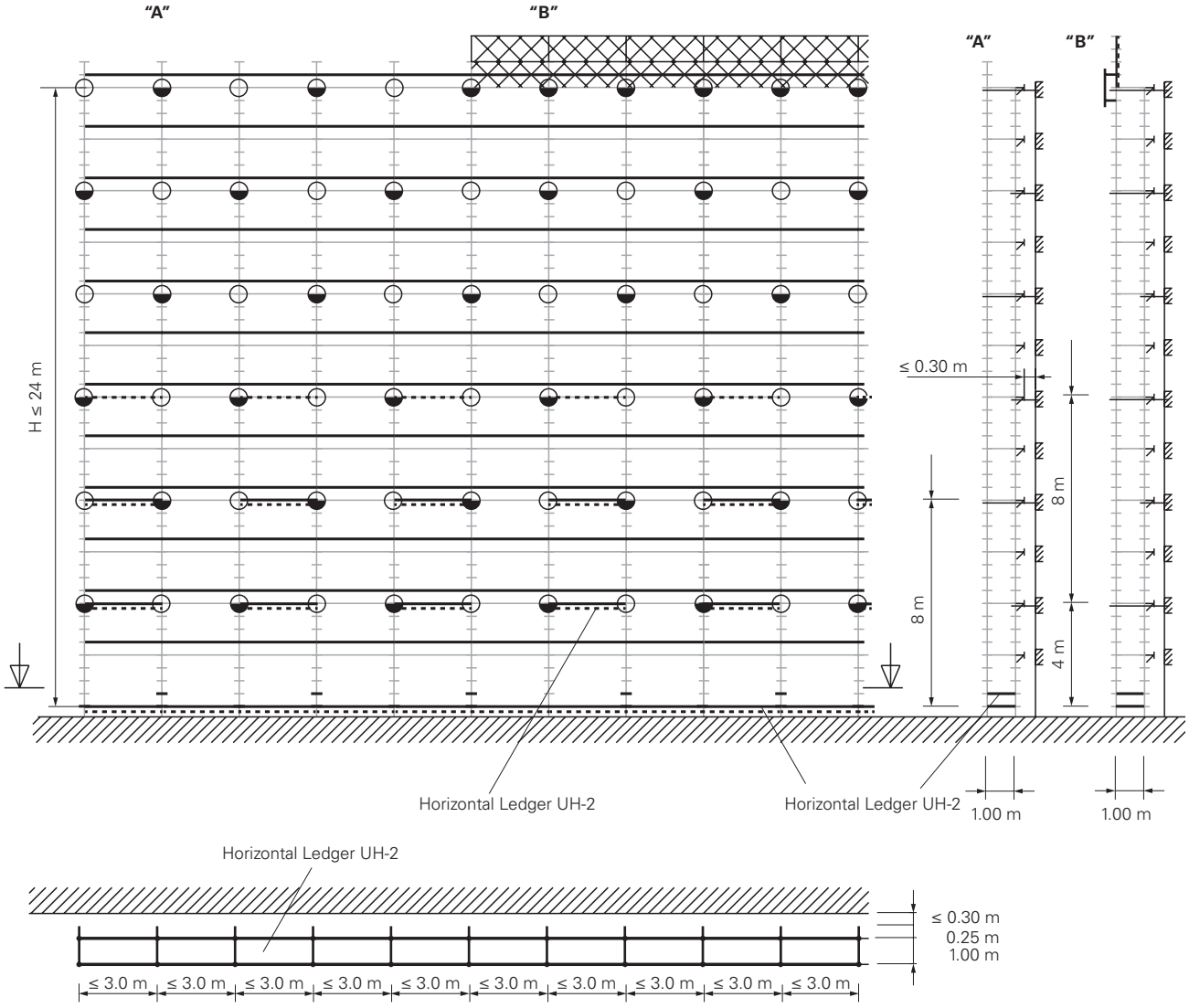
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 3 a/LC4
Standard configuration with internal console bracket:
unclad scaffold in front of open or closed facade.

4 m tie pattern

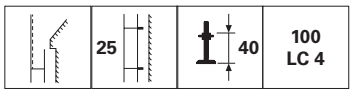


Note: lateral protection components not shown.

⊕ Single-leg wall tie
⊕ Wall tie

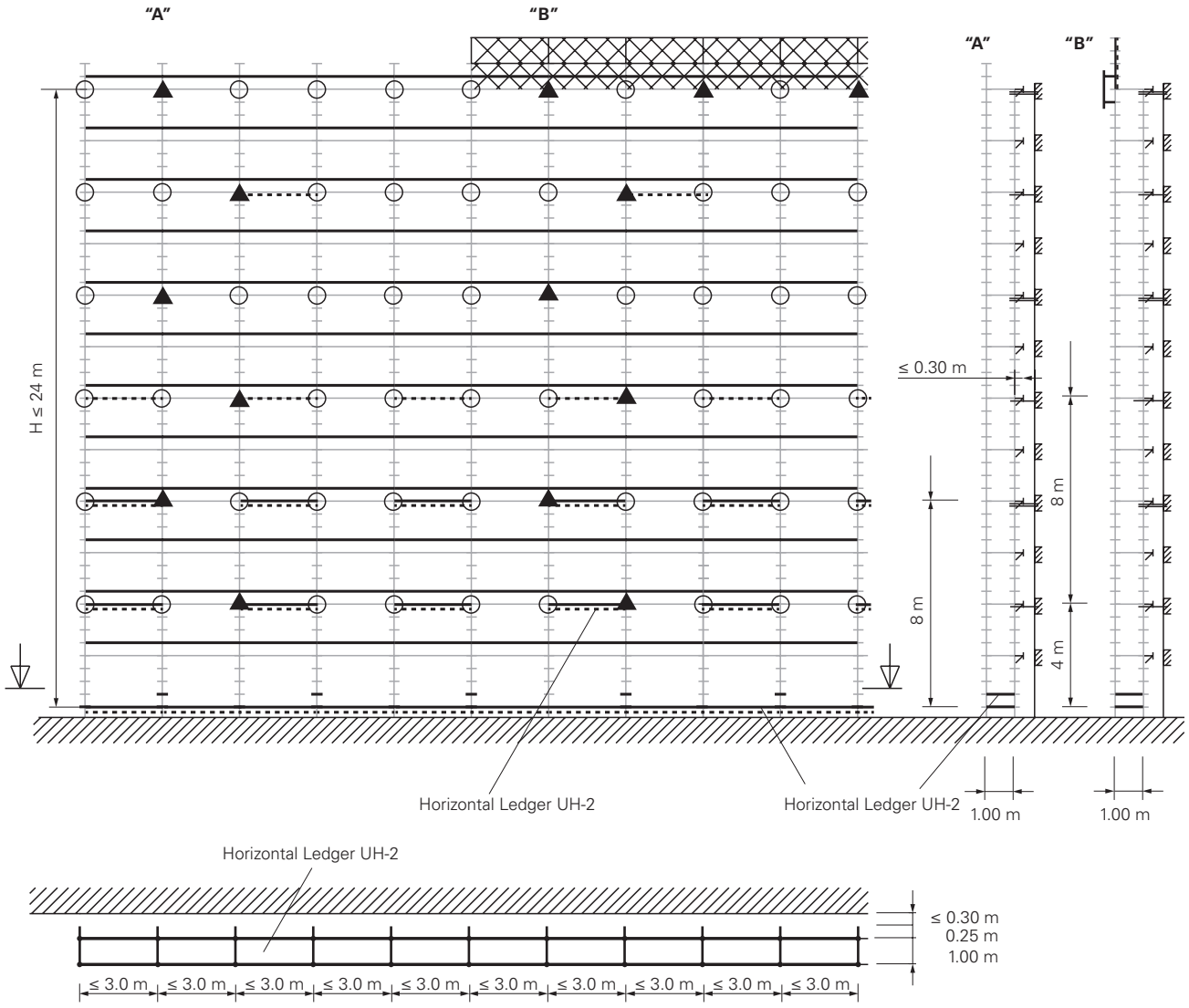
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 3b/LC4
Standard configuration with internal console bracket:
unclad scaffold in front of open or closed facade.

4 m tie pattern



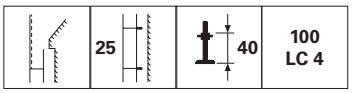
Note: lateral protection components not shown.

- Single-leg wall tie
- Triangulated tie

Flex 100

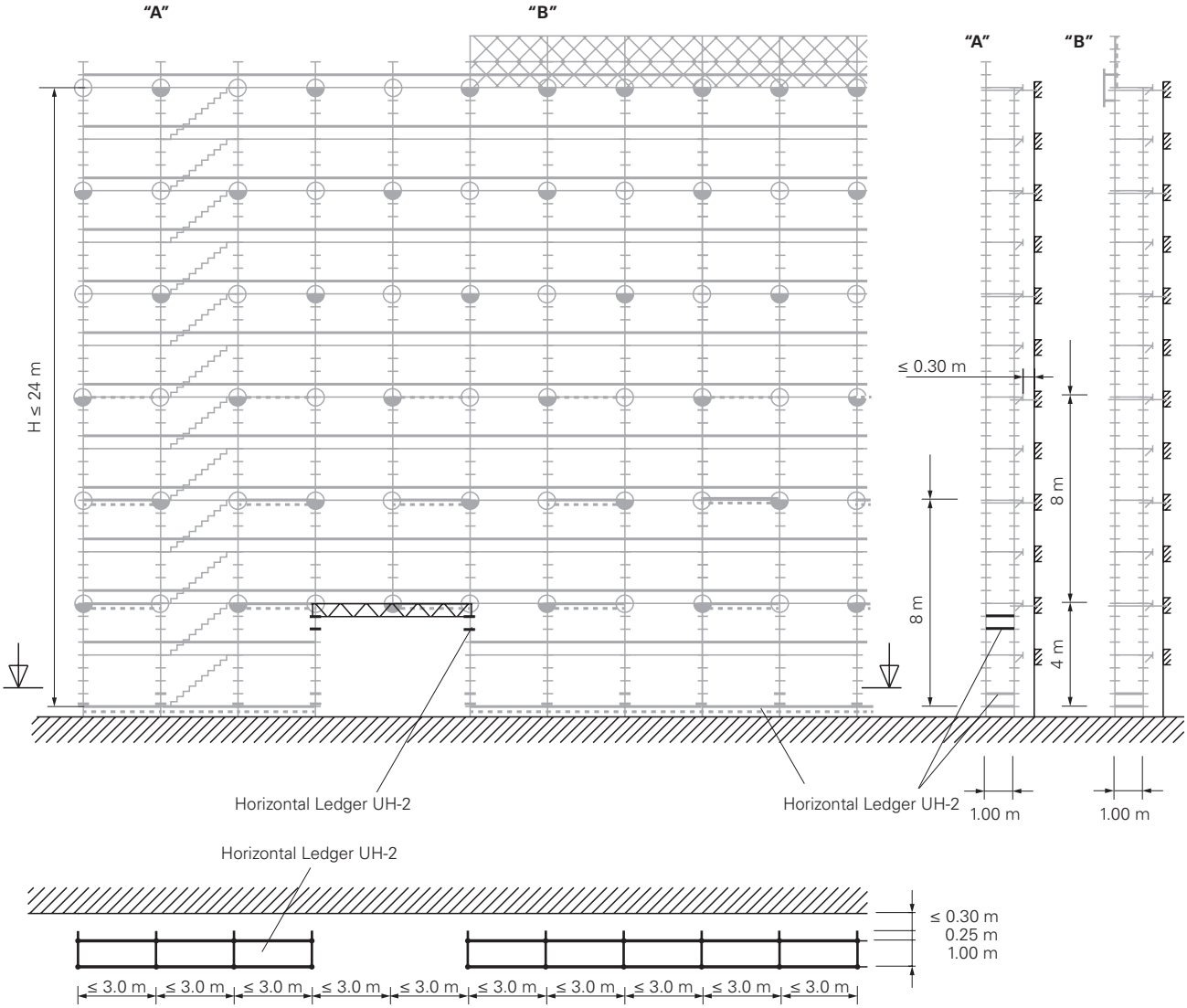
F4 Tie pattern

PERI UP Flex 100 ≤ 24 m



Basic variant 4/LC4, bridging
Standard configuration with internal console bracket:
unclad scaffold in front of open or closed facade.

4 m tie pattern



Note: lateral protection components not shown.

⊕ Single-leg wall tie
⊕ Wall tie

G Examples

General

In addition to the standard configuration shown in these Instructions for Assembly and Use, a wide range of structural arrangements are possible.

The following structural arrangements are not covered by the standard configuration.
They are examples only and are not to be understood as assembly instructions in any way.
Installation instructions must be prepared for these structural arrangements by the contractor and the scaffolding team must be briefed on the content!

Executions deviating from the standard configuration require separate statical proof of stability.

Warning
In the following examples, assembly situations can arise whereby there is a risk of falling.
⇒ Use personal protective equipment to prevent falling from a height (PPE)!
⇒ Use the verified attachment points!

Scaffolding support

On structures that do not allow anchoring, scaffolding support can be attached to the scaffold.
Continuously install scaffolding support in line with basic scaffold assembly.

If required, the support bays with Horizontal Ledgers UHV-2 and decks can be used as ballast support, for example, if pressure support is not possible.
Do not exceed the maximum permissible load!

For assembly of the scaffolding support, the following are also required:
- Standards UVR-2 200,
- Horizontal Ledger UH-2, UHV-2
- Ledger Brace UBL-2,
- Horizontal Brace UBH Flex.

(Fig. G.01 – G.01b)

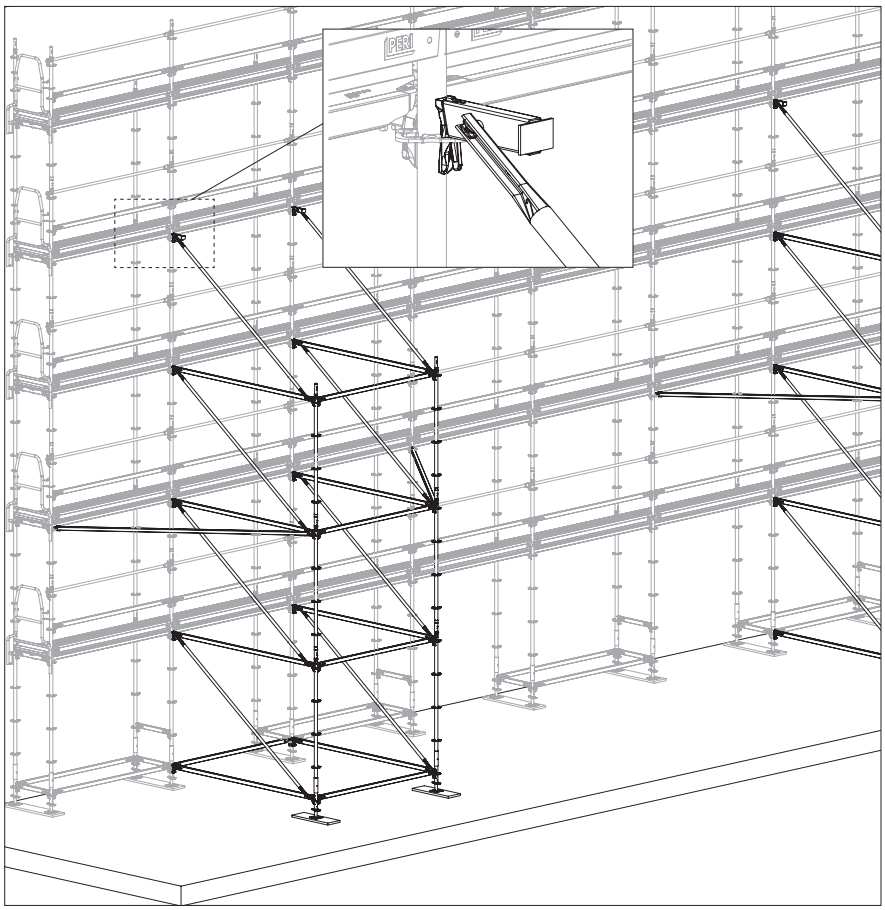


Fig. G.01

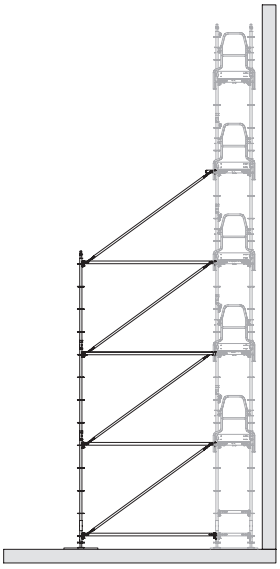


Fig. G.01a

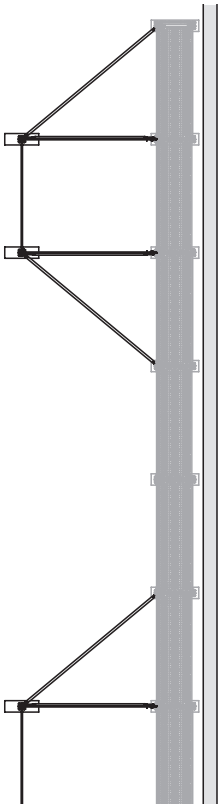


Fig. G.01b

Landing platform

Landing platforms can be installed to store materials.
Do not exceed the maximum permissible load!
① = tension force
② = compressive force
(Fig. G.02 + G.03)

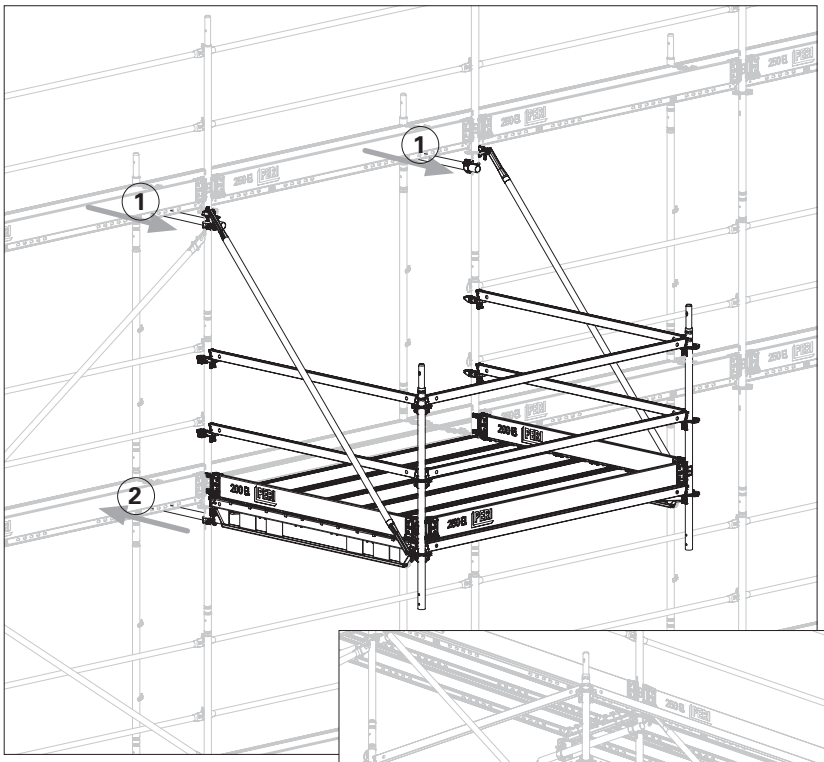


Fig. G.02

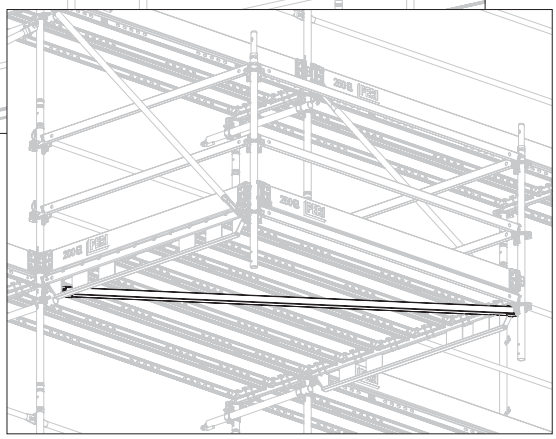


Fig. G.03

Variant:
Node braces for vertical bracing can also be installed, supported from the scaffold level immediately below.
① = tension force
② = compressive force
(Fig. G.04)

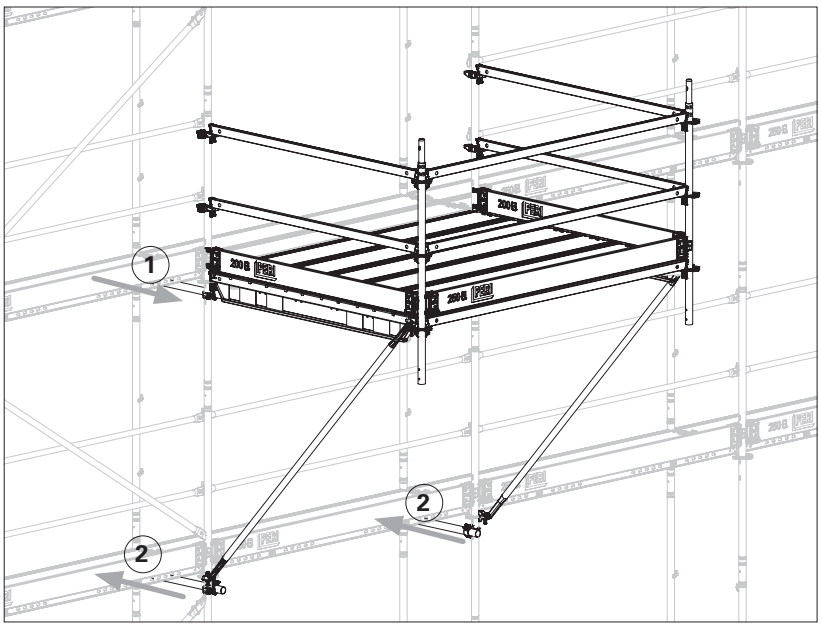


Fig. G.04

Bridging with node braces

Bridging without formwork girders can be realised with four Node Braces UBK-2 (**38**), four Horizontal Ledgers UH-2 (**29**) and a base unit consisting of 2 x Base Standard UVB 25 (**12**), 1 x Horizontal Ledger UH-2 75 (**27**) and 1 x Standard UVR-2 100 (**15**).
On the base unit, further assembly of the scaffold takes place as described.

Up to a bridging width of 3 m, the bridging can be formed from the basic scaffold.
Auxiliary scaffolding is also required.

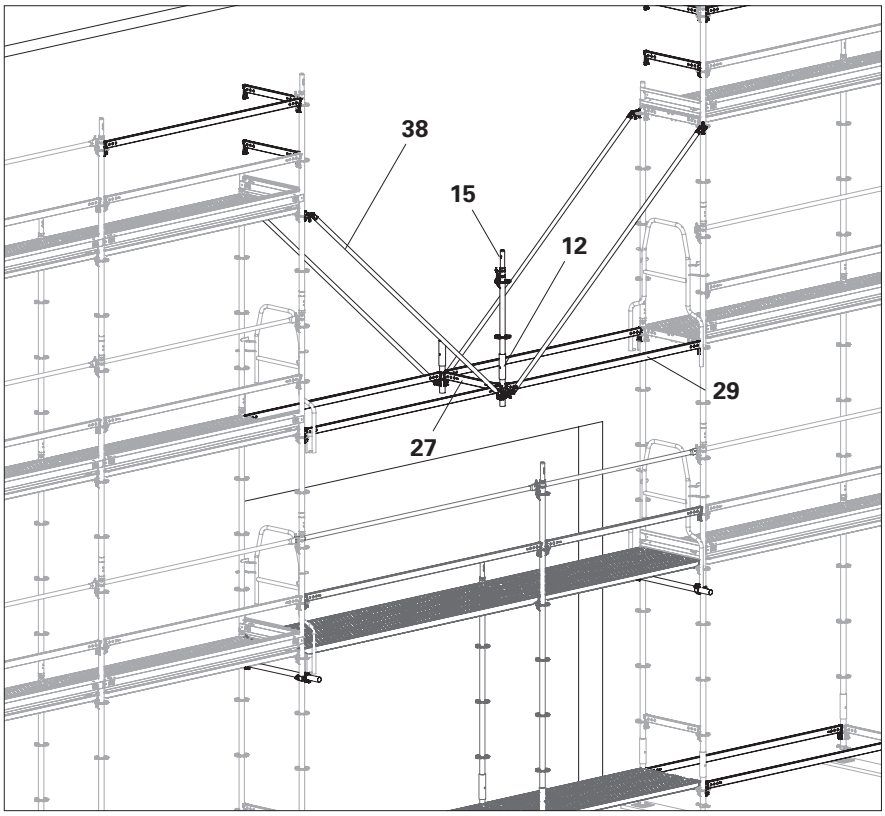


Fig. G.05

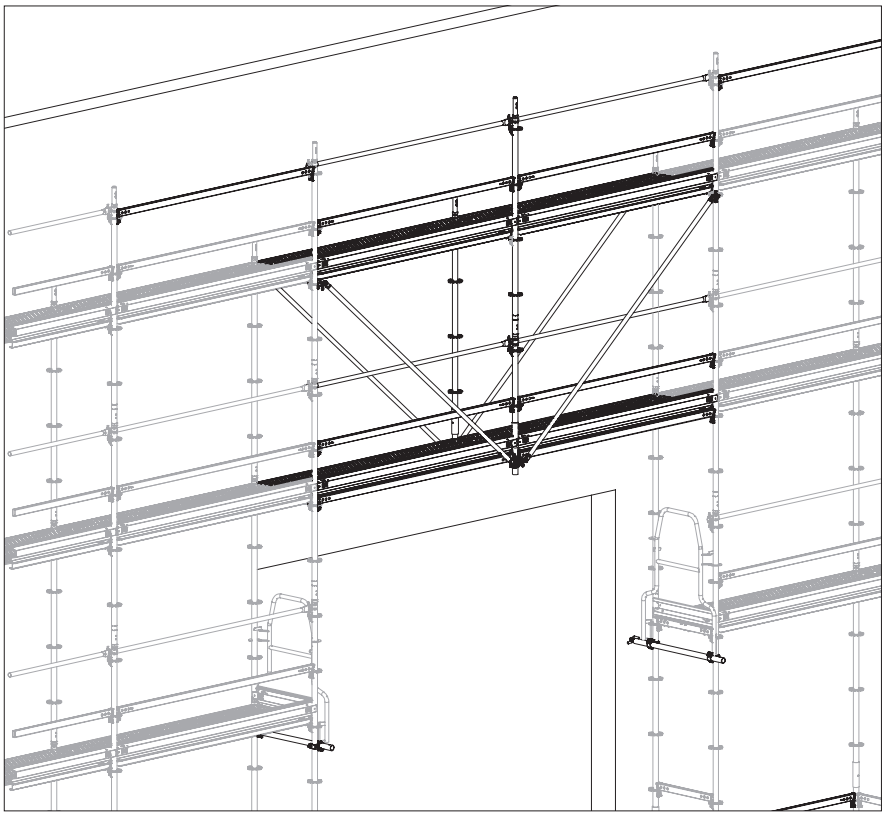
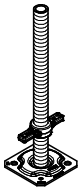
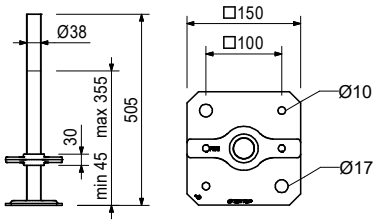


Fig. G.06

Article no.	Weight kg		
100411	3.390	**Base Spindle UJB 38-50/30**	**Note** With captive red quick jack nut.

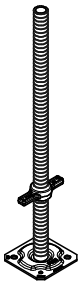


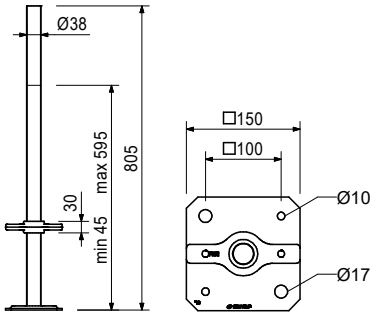


Accessories

100863	1.020	**Spindle Locking UJS**

100242	4.570	**Base Spindle UJB 38-80/55**	**Note** With captive yellow quick jack nut.

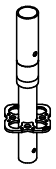


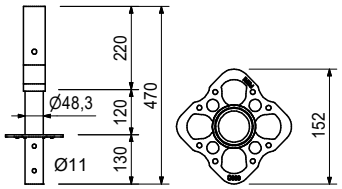


Accessories

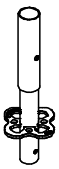
100863	1.020	**Spindle Locking UJS**

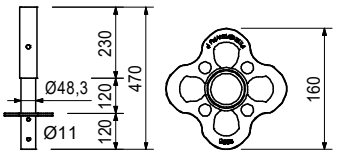
133499	2.270	**Base Standard UVB 25** For fitting directly onto the base spindles. Can also be used as 25 cm standard.



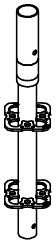


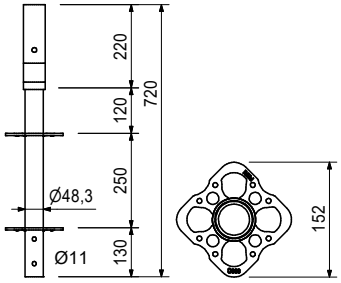
400014	2.470	**Base Standard UVB 24** For fitting directly onto the base spindles.



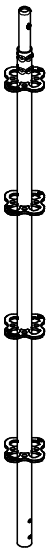


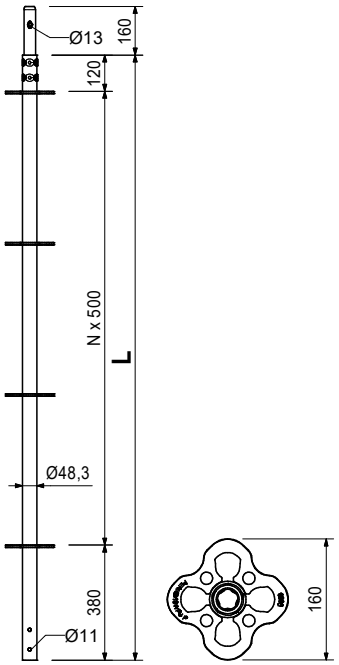
Article no.	Weight kg	
135187	3.590	**Base Standard UVB 50** For fitting directly onto the base spindles. Can also be used as 50 cm standard.



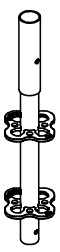


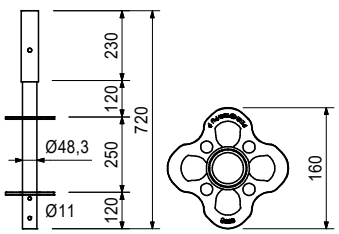
		Standards UVR	L
402859	3.080	**Standard UVR 50**	500
401306	5.380	**Standard UVR 100**	1000
402860	7.690	**Standard UVR 150**	1500
400009	10.000	**Standard UVR 200**	2000
400012	14.700	**Standard UVR 300**	3000
400013	19.200	**Standard UVR 400**	4000



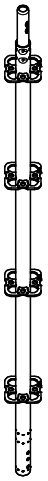


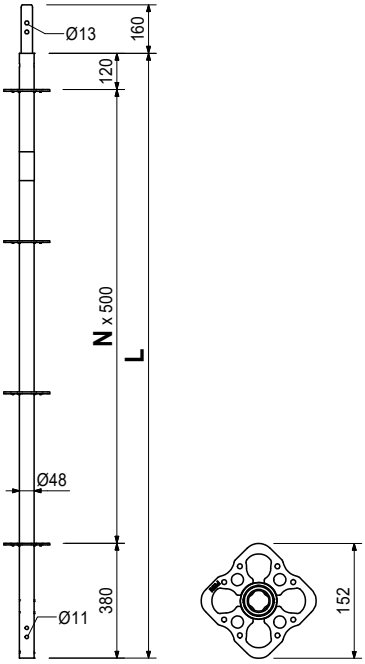
417194	3.980	**Base Standard UVB 49** For fitting directly onto the base spindles. Reduces necessary spindle extensions with 25 cm rosette spacing.





Article no.	Weight kg	Standards UVR-2	L
132219	2.490	**Standard UVR-2 50**	500
132224	4.350	**Standard UVR-2 100**	1000
132229	6.190	**Standard UVR-2 150**	1500
132234	8.040	**Standard UVR-2 200**	2000
132239	11.700	**Standard UVR-2 300**	3000

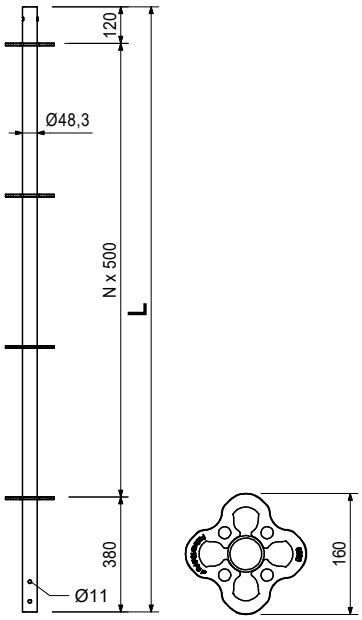




Article no.	Weight kg	Top Standards UVH	L
401309	2.510	**Top Standard UVH 50**	500
400000	4.610	**Top Standard UVH 100**	1000
417195	7.600	**Top Standard UVH 125**	1250
400003	6.920	**Top Standard UVH 150**	1500
400005	9.240	**Top Standard UVH 200**	2000
400007	11.500	**Top Standard UVH 250**	2500

Without pin for mounting head spindles.

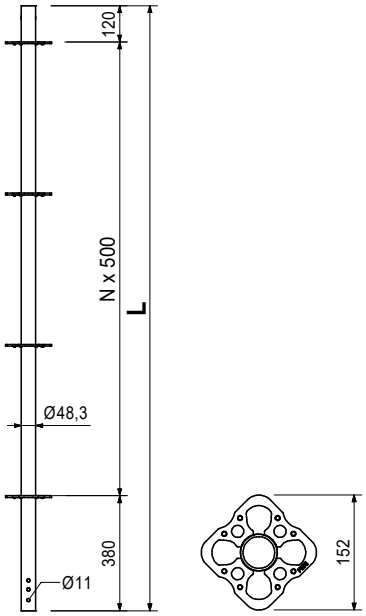




Article no.	Weight kg	Top Standards UVH-2	L
132123	2.100	**Top Standard UVH-2 50**	500
132194	4.210	**Top Standard UVH-2 100**	1000
132196	6.060	**Top Standard UVH-2 125**	1250
132198	6.310	**Top Standard UVH-2 150**	1500
132200	8.420	**Top Standard UVH-2 200**	2000
132202	10.500	**Top Standard UVH-2 250**	2500

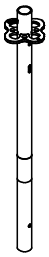
Without pin for mounting head spindles.

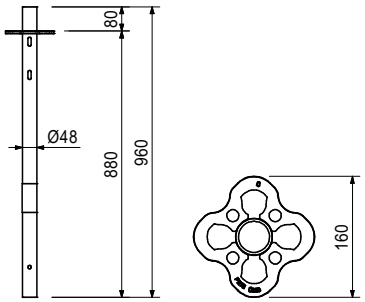




Article no.	Weight kg	
135972	4.310	**Top Standard EVT 96**

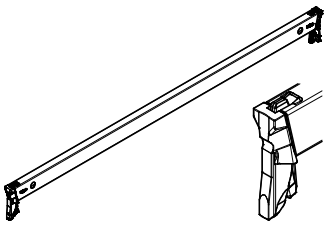
For completing the top section of the scaffold when using Console Bracket ECM in conjunction with Easy Standard EVM to increase the width of the scaffold.

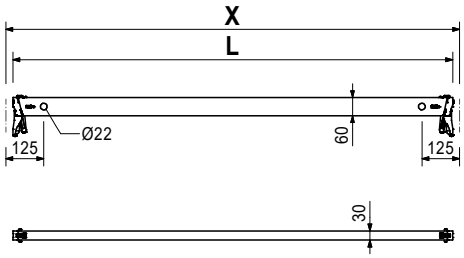




Article no.	Weight kg		L	X
		Horizontal Ledger UH Plus		
414613	1.420	**Horizontal Ledger UH 25 Plus**	204	250
414595	2.070	**Horizontal Ledger UH 50 Plus**	454	500
429982	2.520	**Horizontal Ledger UH 67 Plus**	624	670
414629	2.730	**Horizontal Ledger UH 75 Plus**	704	750
414632	4.390	**Horizontal Ledger UH 100 Plus**	954	1000
414638	5.340	**Horizontal Ledger UH 125 Plus**	1204	1250
414641	4.720	**Horizontal Ledger UH 150 Plus**	1454	1500
417032	5.380	**Horizontal Ledger UH 175 Plus**	1704	1750
414645	6.040	**Horizontal Ledger UH 200 Plus**	1954	2000
416356	6.700	**Horizontal Ledger UH 225 Plus**	2204	2250
414648	7.360	**Horizontal Ledger UH 250 Plus**	2454	2500
414651	8.680	**Horizontal Ledger UH 300 Plus**	2954	3000

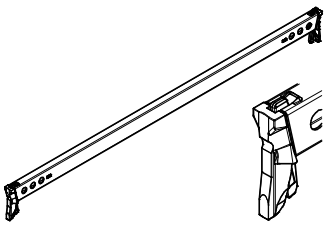
Note
With length marking for easier identification.

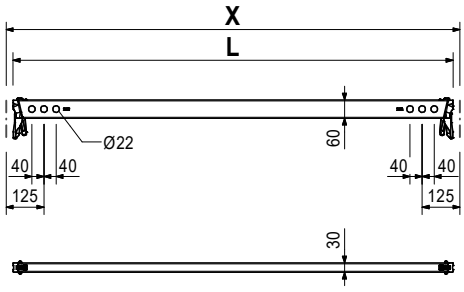




Article no.	Weight kg		L	X
		Horizontal Ledger UH-2		
131995	1.410	**Horizontal Ledger UH-2 25**	204	250
133900	1.590	**Horizontal Ledger UH-2 33**	284	330
131998	2.030	**Horizontal Ledger UH-2 50**	454	500
133903	2.480	**Horizontal Ledger UH-2 67**	624	670
132213	2.690	**Horizontal Ledger UH-2 75**	704	750
132004	3.740	**Horizontal Ledger UH-2 100**	954	1000
132007	4.510	**Horizontal Ledger UH-2 125**	1204	1250
132010	4.680	**Horizontal Ledger UH-2 150**	1454	1500
132013	5.340	**Horizontal Ledger UH-2 175**	1704	1750
132016	6.000	**Horizontal Ledger UH-2 200**	1954	2000
132019	6.660	**Horizontal Ledger UH-2 225**	2204	2250
132025	7.320	**Horizontal Ledger UH-2 250**	2454	2500
132022	8.650	**Horizontal Ledger UH-2 300**	2954	3000

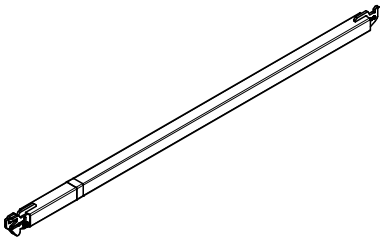
Note
With length marking for easier identification.

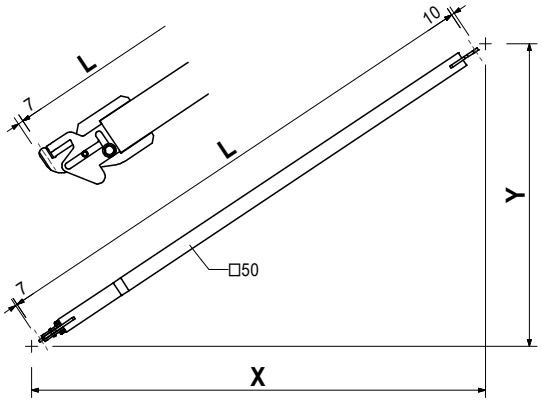




Article no.	Weight kg	Horizontal Braces UBH Flex	L	X	Y
114818	4.590	**Horizontal Brace UBH Flex 100/100**	1,335	1,000	1,000
114904	5.630	**Horizontal Brace UBH Flex 125/125**	1,689	1,250	1,250
114821	5.730	**Horizontal Brace UBH Flex 150/100**	1,725	1,500	1,000
114908	6.170	**Horizontal Brace UBH Flex 150/125**	1,874	1,500	1,250
114912	6.660	**Horizontal Brace UBH Flex 150/150**	2,042	1,500	1,500
114820	7.010	**Horizontal Brace UBH Flex 200/100**	2,161	2,000	1,000
124097	7.780	**Horizontal Brace UBH Flex 200/150**	2,422	2,000	1,500
114916	8.740	**Horizontal Brace UBH Flex 200/200**	2,749	2,000	2,000
114896	8.130	**Horizontal Brace UBH Flex 250/75**	2,541	2,500	750
114819	8.360	**Horizontal Brace UBH Flex 250/100**	2,620	2,500	1,000
114996	8.650	**Horizontal Brace UBH Flex 250/125**	2,720	2,500	1,250
124101	9.000	**Horizontal Brace UBH Flex 250/150**	2,838	2,500	1,500
114920	9.840	**Horizontal Brace UBH Flex 250/200**	3,123	2,500	2,000
114928	10.800	**Horizontal Brace UBH Flex 250/250**	3,456	2,500	2,500
114900	9.550	**Horizontal Brace UBH Flex 300/75**	3,025	3,000	750
114892	9.740	**Horizontal Brace UBH Flex 300/100**	3,092	3,000	1,000
124105	10.300	**Horizontal Brace UBH Flex 300/150**	3,279	3,000	1,500
114924	11.000	**Horizontal Brace UBH Flex 300/200**	3,528	3,000	2,000
114932	11.900	**Horizontal Brace UBH Flex 300/250**	3,826	3,000	2,500
114936	12.900	**Horizontal Brace UBH Flex 300/300**	4,163	3,000	3,000

For horizontal bracing of towers.
Can also be used underneath Decks UDG.



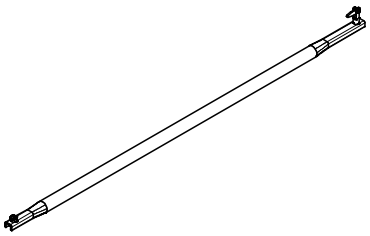


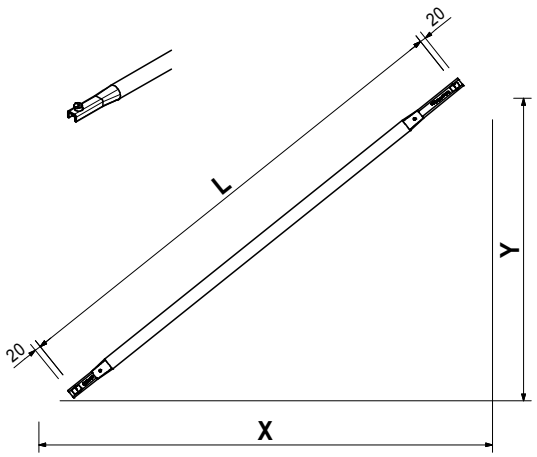
Article no.	Weight kg	Ledger Braces UBL	L	X	Y
415156	2.660	**Ledger Brace UBL 100/50**	901	1,000	500
415513	4.640	**Ledger Brace UBL 100/150**	1,677	1,000	1,500
415157	5.810	**Ledger Brace UBL 100/200**	2,136	1,000	2,000
407867	3.790	**Ledger Brace UBL 150/50**	1,347	1,500	500
400055	4.440	**Ledger Brace UBL 150/100**	1,601	1,500	1,000
402846	5.340	**Ledger Brace UBL 150/150**	1,953	1,500	1,500
400057	6.380	**Ledger Brace UBL 150/200**	2,358	1,500	2,000
409034	6.740	**Ledger Brace UBL 175/200**	2,500	1,750	2,000
404391	5.000	**Ledger Brace UBL 200/50**	1,820	2,000	500
400059	5.510	**Ledger Brace UBL 200/100**	2,016	2,000	1,000
402862	6.240	**Ledger Brace UBL 200/150**	2,305	2,000	1,500
400061	7.150	**Ledger Brace UBL 200/200**	2,658	2,000	2,000
430282	5.620	**Ledger Brace UBL 225/50**	2,062	2,250	500
430283	6.070	**Ledger Brace UBL 225/100**	2,236	2,250	1,000
417689	7.580	**Ledger Brace UBL 225/200**	2,829	2,250	2,000
400063	6.640	**Ledger Brace UBL 250/100**	2,462	2,500	1,000
402861	7.260	**Ledger Brace UBL 250/150**	2,705	2,500	1,500
400065	8.050	**Ledger Brace UBL 250/200**	3,010	2,500	2,000
404762	7.490	**Ledger Brace UBL 300/50**	2,795	3,000	500
400067	7.830	**Ledger Brace UBL 300/100**	2,926	3,000	1,000
404766	8.360	**Ledger Brace UBL 300/150**	3,133	3,000	1,500
400069	9.040	**Ledger Brace UBL 300/200**	3,400	3,000	2,000

They are attached using holes in the horizontal ledgers.

Note

Longitudinally-stamped with coloured label for easier identification.
UBL 150/250 identical to UBL 300/50.
UBL 225/150 identical to UBL 175/200.
UBL 250/50 identical to UBL 200/150
UBL 75/200 identical to UBL 225/50.
UBL 100/100 identical to Diagonal Rod ST 100 (art. no. 019940).

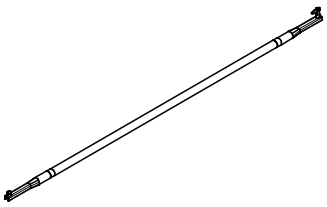


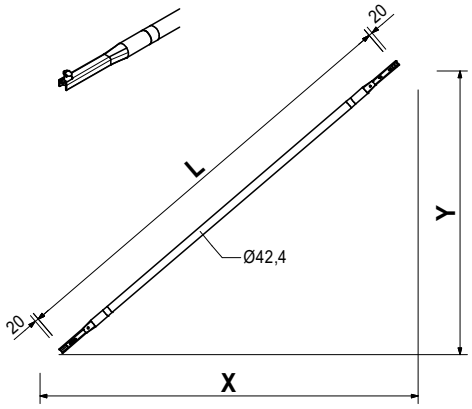


Article no.	Weight kg	Ledger Braces UBL-2	L	X	Y
132771	2.140	**Ledger Brace UBL-2 100/50**	901	1,000	500
132773	2.830	**Ledger Brace UBL-2 100/100**	1,250	1,000	1,000
132775	3.680	**Ledger Brace UBL-2 100/150**	1,677	1,000	1,500
132777	4.600	**Ledger Brace UBL-2 100/200**	2,136	1,000	2,000
132779	3.030	**Ledger Brace UBL-2 150/50**	1,347	1,500	500
132781	3.530	**Ledger Brace UBL-2 150/100**	1,601	1,500	1,000
132783	4.230	**Ledger Brace UBL-2 150/150**	1,953	1,500	1,500
132785	5.040	**Ledger Brace UBL-2 150/200**	2,358	1,500	2,000
132787	5.330	**Ledger Brace UBL-2 175/200**	2,500	1,750	2,000
132789	3.970	**Ledger Brace UBL-2 200/50**	1,820	2,000	500
132791	4.360	**Ledger Brace UBL-2 200/100**	2,016	2,000	1,000
132793	4.940	**Ledger Brace UBL-2 200/150**	2,305	2,000	1,500
132795	5.640	**Ledger Brace UBL-2 200/200**	2,658	2,000	2,000
132797	4.450	**Ledger Brace UBL-2 225/50**	2,062	2,250	500
132808	4.800	**Ledger Brace UBL-2 225/100**	2,236	2,250	1,000
132810	5.980	**Ledger Brace UBL-2 225/200**	2,829	2,250	2,000
132812	5.250	**Ledger Brace UBL-2 250/100**	2,462	2,500	1,000
132814	5.730	**Ledger Brace UBL-2 250/150**	2,705	2,500	1,500
132816	6.340	**Ledger Brace UBL-2 250/ 200**	3,010	2,500	2,000
132827	5.920	**Ledger Brace UBL-2 300/50**	2,795	3,000	500
132829	6.180	**Ledger Brace UBL-2 300/100**	2,926	3,000	1,000
132831	6.590	**Ledger Brace UBL-2 300/150**	3,133	3,000	1,500
132833	7.120	**Ledger Brace UBL-2 300/200**	3,400	3,000	2,000

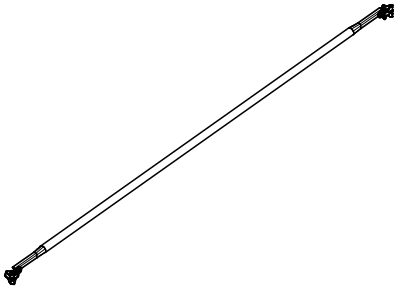
Note

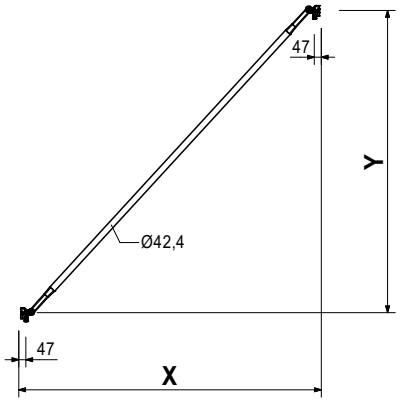
Longitudinally-stamped with coloured label for easier identification.
UBL-2 150/250 identical to UBL-2 300/50.
UBL-2 225/150 identical to UBL-2 175/200.
UBL-2 250/50 identical to UBL-2 200/150
UBL-2 75/200 identical to UBL-2 225/50.



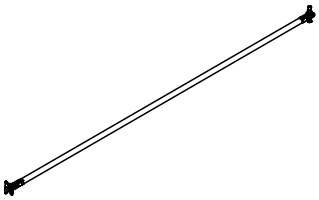


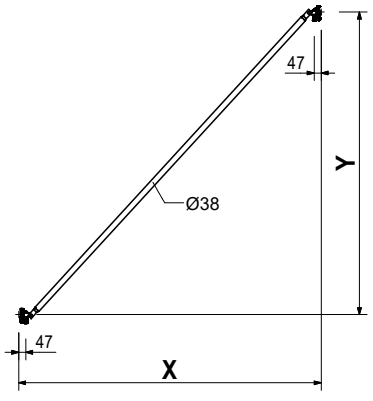
Article no.	Weight kg	Node Braces UBK	L	X	Y
424170	6.770	**Node Brace UBK 75/200**	2,190	750	2,000
412926	6.980	**Node Brace UBK 100/200**	2,285	1,000	2,000
415354	5.210	**Node Brace UBK 125/100**	1,625	1,250	1,000
412765	7.250	**Node Brace UBK 125/200**	2,401	1,250	2,000
400981	5.700	**Node Brace UBK 150/100**	1,821	1,500	1,000
400973	6.570	**Node Brace UBK 150/150**	2,152	1,500	1,500
400572	7.590	**Node Brace UBK 150/200**	2,539	1,500	2,000
400985	6.780	**Node Brace UBK 200/100**	2,246	2,000	1,000
406630	7.500	**Node Brace UBK 200/150**	2,521	2,000	1,500
400573	8.380	**Node Brace UBK 200/200**	2,860	2,000	2,000
400989	7.930	**Node Brace UBK 250/100**	2,696	2,500	1,000
406624	8.530	**Node Brace UBK 250/150**	2,930	2,500	1,500
400574	9.300	**Node Brace UBK 250/200**	3,226	2,500	2,000
400993	9.120	**Node Brace UBK 300/100**	3,131	3,000	1,000
400575	10.300	**Node Brace UBK 300/200**	3,625	3,000	2,000





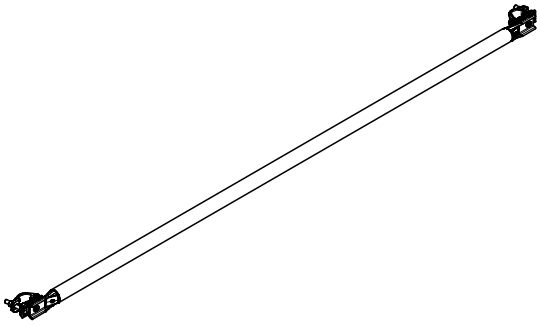
Article no.	Weight kg	Node Braces UBK-2	L	X	Y
133418	4.980	**Node Brace UBK-2 75/200**	2,190	750	2,000
133421	5.130	**Node Brace UBK-2 100/200**	2,285	1,000	2,000
133424	3.900	**Node Brace UBK-2 125/100**	1,625	1,250	1,000
133427	5.320	**Node Brace UBK-2 125/200**	2,401	1,250	2,000
133430	4.240	**Node Brace UBK-2 150/100**	1,821	1,500	1,000
133433	4.840	**Node Brace UBK-2 150/150**	2,152	1,500	1,500
133436	5.550	**Node Brace UBK-2 150/200**	2,539	1,500	2,000
133439	4.990	**Node Brace UBK-2 200/100**	2,246	2,000	1,000
133442	5.490	**Node Brace UBK-2 200/150**	2,521	2,000	1,500
133445	6.100	**Node Brace UBK-2 200/200**	2,860	2,000	2,000
133448	5.790	**Node Brace UBK-2 250/100**	2,696	2,500	1,000
133451	6.210	**Node Brace UBK-2 250/150**	2,930	2,500	1,500
133454	6.740	**Node Brace UBK-2 250/200**	3,226	2,500	2,000
133457	6.620	**Node Brace UBK-2 300/100**	3,131	3,000	1,000
133460	6.980	**Node Brace UBK-2 300/150**	3,356	3,000	1,500
133463	7.440	**Node Brace UBK-2 300/200**	3,625	3,000	2,000

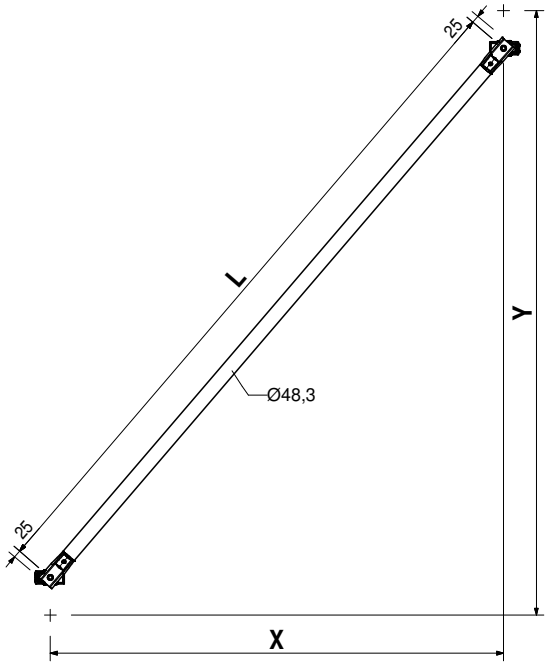




Article no.	Weight kg	Coupler Braces UBC	L	X	Y
400416	9.520	**Coupler Brace UBC 150/200**	2,305	1,500	2,000
400419	10.800	**Coupler Brace UBC 200/200**	2,657	2,000	2,000
400422	12.200	**Coupler Brace UBC 250/200**	3,052	2,500	2,000
400425	13.700	**Coupler Brace UBC 300/200**	3,473	3,000	2,000

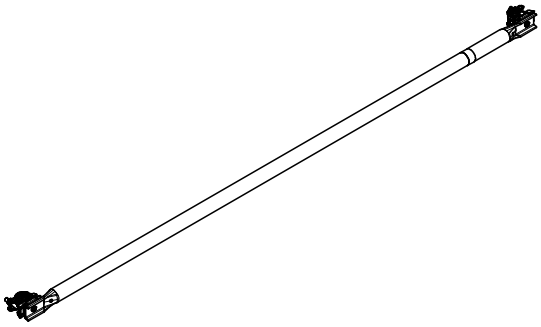
For special applications.
For connecting scaffold tubes Ø 48 mm.

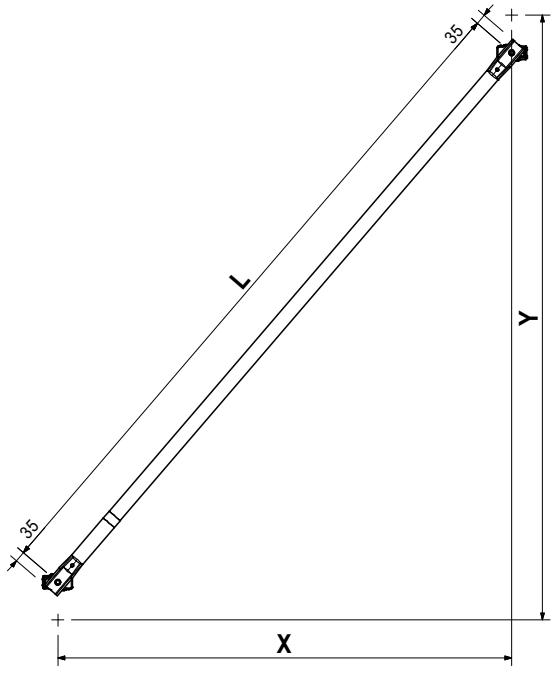




Article no.	Weight kg	Coupler Braces UBC-2	L	X	Y
131750	7.330	**Coupler Brace UBC-2 67-100/200**	1,750	670	2,000
131726	9.020	**Coupler Brace UBC-2 150/200**	2,305	1,500	2,000
131741	10.100	**Coupler Brace UBC-2 200/200**	2,657	2,000	2,000
131744	11.300	**Coupler Brace UBC-2 250/200**	3,052	2,500	2,000
131747	12.500	**Coupler Brace UBC-2 300/200**	3,473	3,000	2,000

For special applications.
For connecting scaffold tubes Ø 48 mm.



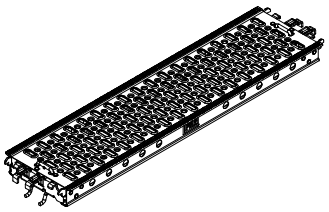


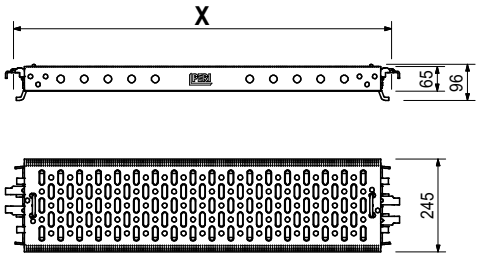
Article no.	Weight kg	Steel Decks UDG 25	X	perm. p [kN/m²]	max. p [kN/m²]
424124	3.880	**Steel Deck UDG 25 x 50**	500	6.0	40.0
432858	4.810	**Steel Deck UDG 25 x 67**	670	6.0	40.0
424121	5.260	**Steel Deck UDG 25 x 75**	750	6.0	40.0
424118	6.630	**Steel Deck UDG 25 x 100**	1,000	6.0	40.0
424115	8.010	**Steel Deck UDG 25 x 125**	1,250	6.0	28.4
424112	9.410	**Steel Deck UDG 25 x 150**	1,500	6.0	19.6
424109	12.200	**Steel Deck UDG 25 x 200**	2,000	6.0	10.9
423771	14.900	**Steel Deck UDG 25 x 250**	2,500	4.5	6.9
424915	17.700	**Steel Deck UDG 25 x 300**	3,000	3.0	4.7

Fit onto Horizontal Ledgers UH.

Note

Values corresponding to EN 12811-1.
max. p = max. possible surface load without deflection restriction.



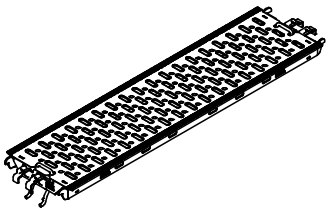


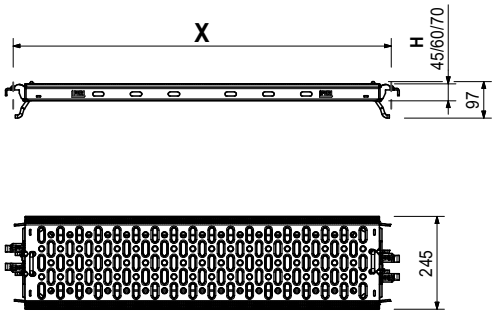
Article no.	Weight kg	Steel Decks UDG-2 25	X	perm. p [kN/m²]
132479	3.190	**Steel Deck UDG-2 25 x 50**	500	6.0
132483	3.960	**Steel Deck UDG-2 25 x 67**	670	6.0
132488	4.320	**Steel Deck UDG-2 25 x 75**	750	6.0
132492	5.450	**Steel Deck UDG-2 25 x 100**	1000	6.0
132502	6.590	**Steel Deck UDG-2 25 x 125**	1250	6.0
132505	7.730	**Steel Deck UDG-2 25 x 150**	1500	6.0
132508	10.500	**Steel Deck UDG-2 25 x 200**	2000	6.0
132511	12.900	**Steel Deck UDG-2 25 x 250**	2500	4.5
132515	15.800	**Steel Deck UDG-2 25 x 300**	3000	3.0

Length X: 500- 1500 with H of 45 mm.
Length X: 2000- 2500 with H of 60 mm.
Length X: 3000 with H of 70 mm.

Note

Values correspond with EN 12811-1.

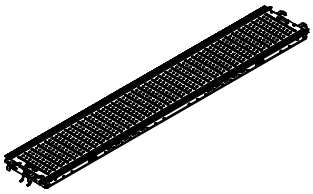


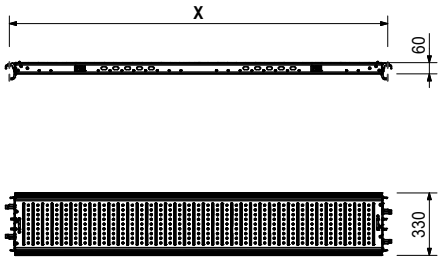


Article no.	Weight kg	Steel Decks EDS 33	X	perm. p [kN/m²]
130450	5.420	**Steel Deck EDS 33 x 67**	670	6.0
130448	7.360	**Steel Deck EDS 33 x 100**	1000	6.0
130445	10.300	**Steel Deck EDS 33 x 150**	1500	6.0
130441	13.300	**Steel Deck EDS 33 x 200**	2000	6.0
130438	16.200	**Steel Deck EDS 33 x 250**	2500	4.5
129272	19.200	**Steel Deck EDS 33 x 300**	3000	3.0

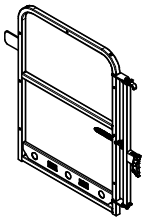
Installation on crossbar of the frame components or on Horizontal Ledger UH.

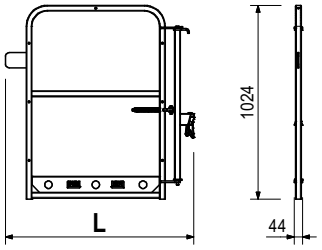
Note
Values correspond with EN 12811-1.





Article no.	Weight kg	Safety Entry Gates UPS	L
125672	9.470	**Safety Entry Gate UPS 75**	747
126675	11.100	**Safety Entry Gate UPS 100**	996

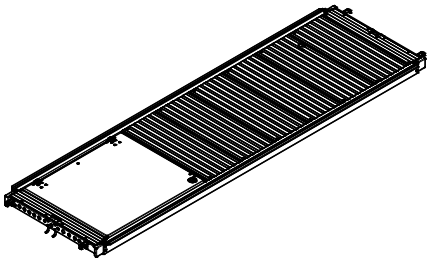


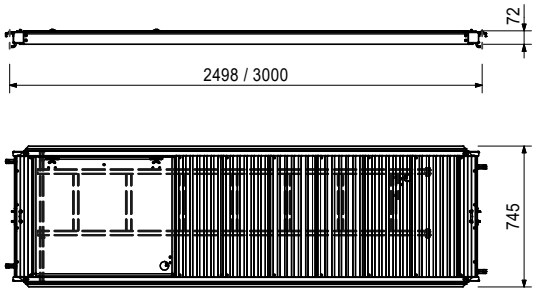


Article no.	Weight kg	Access Decks UAA
133314	27.000	**Access Deck UAA 75 x 250-L**
133315	30.300	**Access Deck UAA 75 x 300-L**

Installation on Crossbars or Horizontal Ledgers UH.

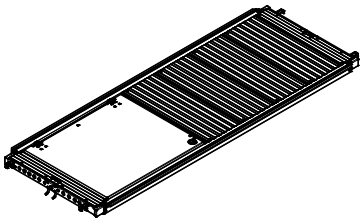
Technical data
Load Class 3 = 2.0 kN/m²

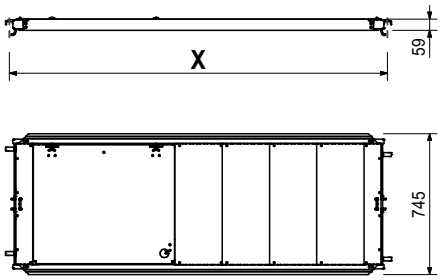




Article no.	Weight kg		
		Entry Platforms UAA	**X**
132993	16.000	**Entry Platform UAA 75 x 150**	1500
132990	19.100	**Entry Platform UAA 75 x 200**	2000

Technical data
Load Class 3 = 2.0 kN/m²



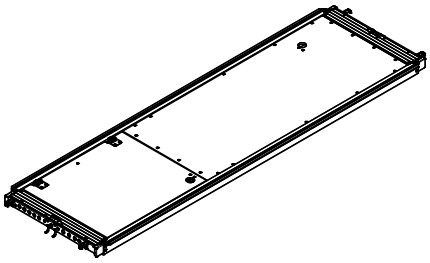


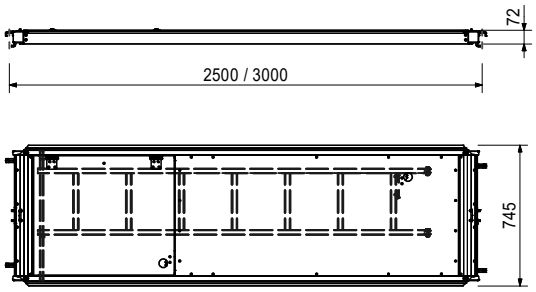
Accessories

109879	3.820	**Ladder UAF 200, Aluminium**

		Access Decks UAW	**Note**
130334	25.900	**Access Deck UAW 75 x 250-L**	Load Class 3 = 2.0 kN/m²
133309	29.700	**Access Deck UAW 75 x 300-L**	

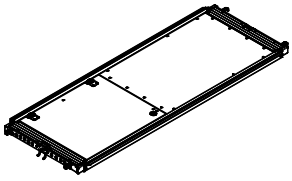
Installation on crossbars or Horizontal Ledgers UH.

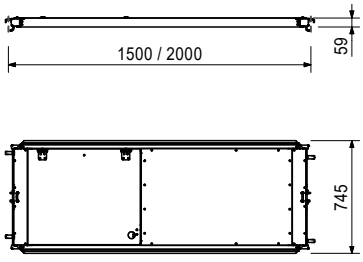




		Entry Platforms UAW	**Technical data**
134046	14.100	**Entry Platform UAW 75 x 150**	Load Class 3 = 2.0 kN/m²
132996	17.900	**Entry Platform UAW 75 x 200**	

Installation on Crossbars and Horizontal Ledgers UH.





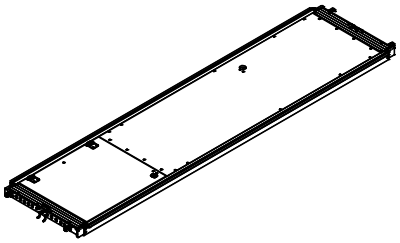
Accessories

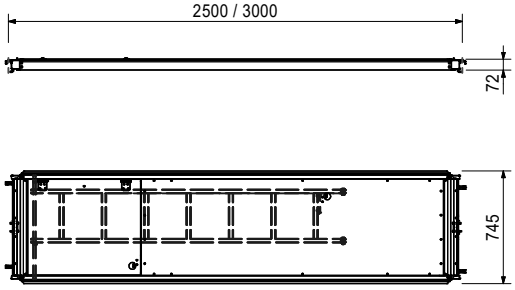
109879	3.820	**Ladder UAF 200, Aluminium**

Article no.	Weight kg	
		Access Decks UAC
135372	26.600	**Access Deck UAC 75 x 250-L**
135371	30.700	**Access Deck UAC 75 x 300-L**

Aluminium spar profile with glass-fibre reinforced plastic trapdoor. Installation on Crossbars or Horizontal Ledgers UH. Lateral hatch.

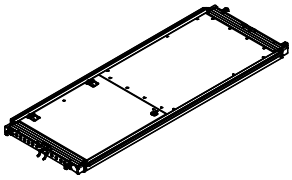
Technical data
Load Class 3 = 2.0 kN/m²

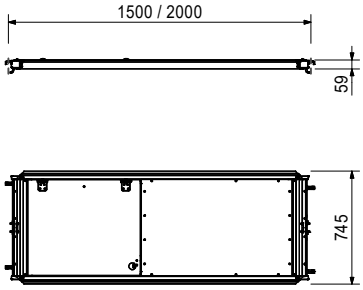




		Entry Platform UAC
136197	14.400	**Entry Platform UAC 75 x 150**
135373	18.500	**Entry Platform UAC 75 x 200**

Technical data
Load Class 3 = 2.0 kN/m²





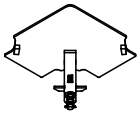
Accessories

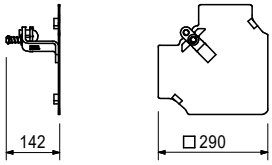
109879	3.820	**Ladder UAF 200, Aluminium**

		Inside Corner Plates EDP
134549	2.800	**Inside Corner Plate 25**
134552	4.940	**Inside Corner Plate 33**

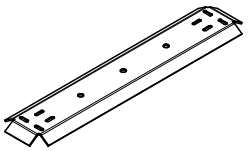
L
290
378

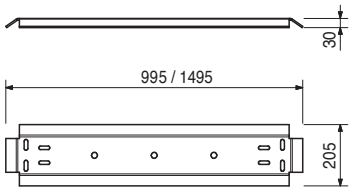
Note
Load Class 4, 3.0 kN/m².





Article no.	Weight kg		
		Cover Plate UDB	**Note**
136927	2.780	**Cover Plate UDB-A 20 x 100**	Load class 3, 2.0 kN/m²
136925	4.250	**Cover Plate UDB-A 20 x 150**	UDB-A = aluminium version
137447	4.910	**Cover Plate UDB-S 20 x 100**	UDB-S = steel version
137449	7.510	**Cover Plate UDB-S 20 x 150**	



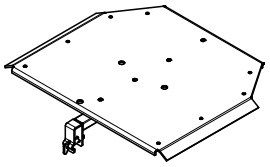


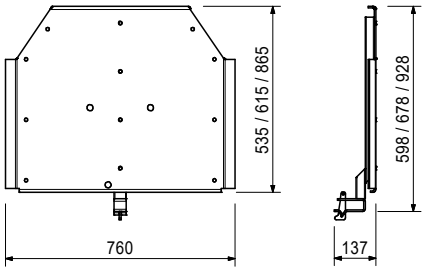
Accessories

137252	0.200	**FLRD screw M 10 x 60 DIN 603, 8.8, galv.**
137279	0.100	**Hex nut ISO 4032 M10-8, galv. SW17**

		Cover Plates UDP	**Technical data**
136832	0.000	**Cover Plate UDP 67**	Load Class 3, 2.0 kN/m²
111101	7.780	**Cover Plate UDP 75**	
112809	10.900	**Cover Plate UDP 100**	

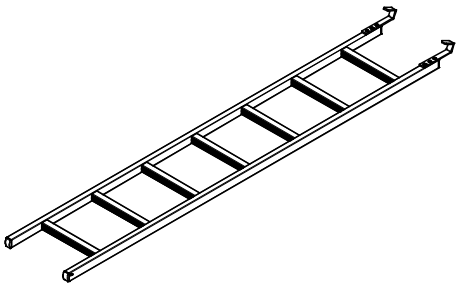
Fit onto Horizontal Ledgers UH. Closes deck gaps between scaffold bays in the scaffolding of circular buildings.

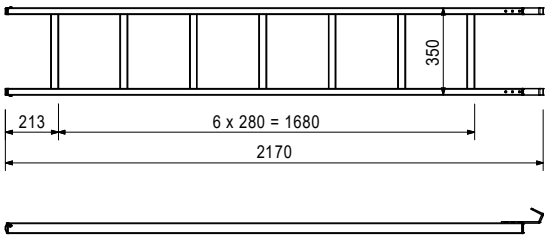




109879	3.820	**Ladder UAF 200, Aluminium**

To mount on the Entry Platform EAW, EAA, EAC 200.

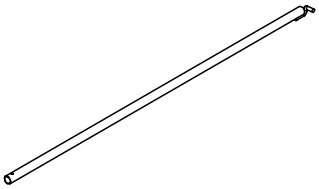


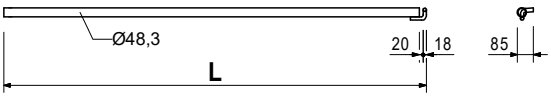


		Eyebolts UFE 12	**Note**
100693	0.169	**Eyebolt UFE 12/90**	With marking for screw-in depth.
100694	0.190	**Eyebolt UFE 12/120**	
100695	0.250	**Eyebolt UFE 12/190**	

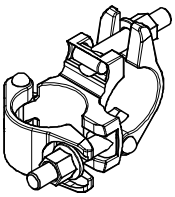
For assembly of the Wall Tie UWT.
Required Expanding Dowel UFI 14.

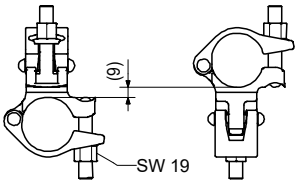
Article no.	Weight kg		
		Wall Tie UWT	**L**
100088	1.920	**Wall Tie UWT 45**	488
100091	4.680	**Wall Tie UWT 110**	1138
100093	5.870	**Wall Tie UWT 140**	1438
102951	7.060	**Wall Tie UWT 170**	1738
102954	9.050	**Wall Tie UWT 220**	2238
102957	11.000	**Wall Tie UWT 270**	2738



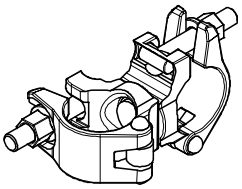


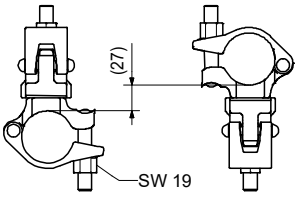
017020	1.120	**Standard Coupler RA 48/48, galv.** For scaffold tubes Ø 48 mm.



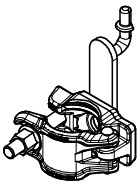


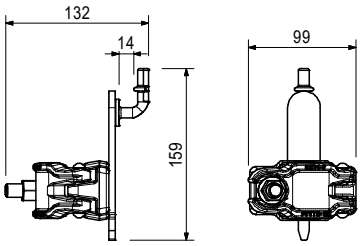
017010	1.400	**Swivel Coupling AF 48/48, galv.** For scaffold tubes Ø 48 mm.

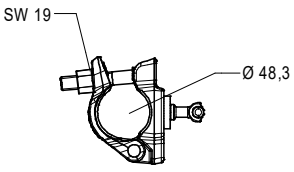




130434	1.100	**Guardrail Coupling EPR** For installing the Guardrail Posts EPG on the scaffold standards at any height.

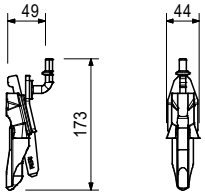






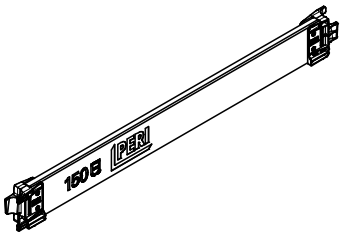
Article no.	Weight kg	
130562	0.623	**Guardrail Holder EPW** For installing the Guardrail Posts EPG to rosettes.

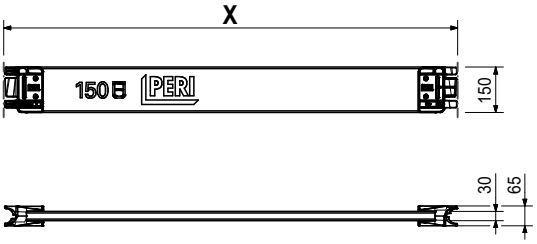




		Wood Toe Boards UPF	**X**
129490	1.180	**Wood Toe Board UPF 50**	500
129494	1.720	**Wood Toe Board UPF 75**	750
129496	2.250	**Wood Toe Board UPF 100**	1000
129498	3.320	**Wood Toe Board UPF 150**	1500
129500	4.390	**Wood Toe Board UPF 200**	2000
129502	5.460	**Wood Toe Board UPF 250**	2500
129504	6.520	**Wood Toe Board UPF 300**	3000

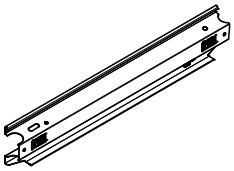
Note
- Default surface: painted yellow.

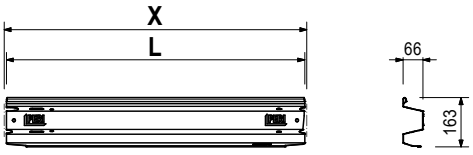




		Steel Toe Board UPY	**L**	**X**
132592	0.414	**Steel Toe Board UPY 25**	236	250
110213	0.929	**Steel Toe Board UPY 50**	486	500
110514	1.450	**Steel Toe Board UPY 75**	736	750
110073	1.960	**Steel Toe Board UPY 100**	986	1000
134628	2.480	**Steel Toe Board UPY 125**	1236	1250
110160	2.990	**Steel Toe Board UPY 150**	1486	1500
110176	4.030	**Steel Toe Board UPY 200**	1986	2000
110208	5.060	**Steel Toe Board UPY 250**	2486	2500
110211	6.090	**Steel Toe Board UPY 300**	2986	3000

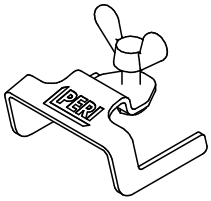
Note
- Default surface: galvanised and painted in yellow.

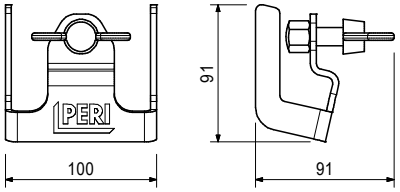




Article no.	Weight kg	
134542	0.606	**Toe Board Compensation UPY-L**

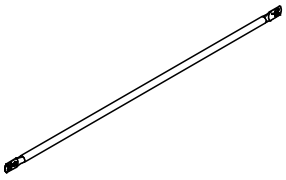
Connection component for connection of 2 x Toe Boards UPY.

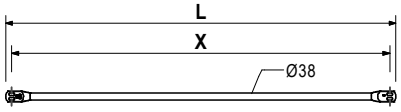




		Guardrail Posts EPG	**L**	**X**
130191	1.150	**Guardrail Post EPG 67**	735	670
130193	1.680	**Guardrail Post EPG 100**	1065	1000
130195	2.480	**Guardrail Post EPG 150**	1565	1500
130197	3.280	**Guardrail Post EPG 200**	2065	2000
130199	4.090	**Guardrail Post EPG 250**	2565	2500
130201	4.890	**Guardrail Post EPG 300**	3065	3000

Note
With length marking for easier identification.

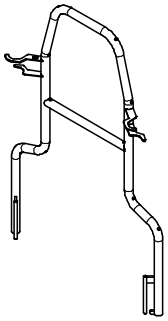


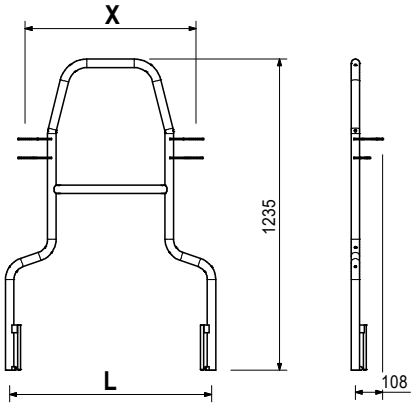


		End Guardrail in Advance UPA	**L**	**X**
430476	6.230	**End Guardrail in Advance UPA 67**	801	670
430577	6.500	**End Guardrail in Advance UPA 75**	881	750
430583	7.600	**End Guardrail in Advance UPA 100**	1131	1000

Assembly in advance.

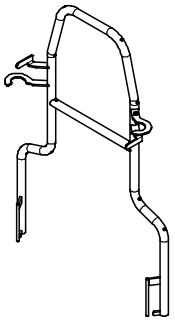
Note
Wood toe board/steel toe board not integrated.

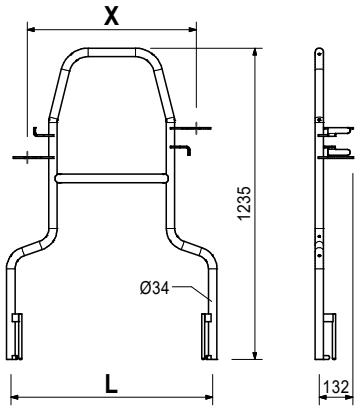




Article no.	Weight kg		L	X
		End Guardrail in Advance UPA-2		
134100	6.730	**End Guardrail in Advance UPA-2 67**	801	670
134102	7.000	**End Guardrail in Advance UPA-2 75**	881	750
134104	8.100	**End Guardrail in Advance UPA-2 100**	1131	1000

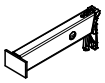
Assembly in advance.

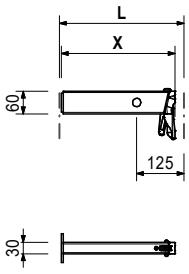




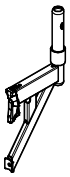
		Supports UC	L	X
115959	1.160	**Support UC 25**	250	223
130390	1.360	**Support UC 33**	330	301

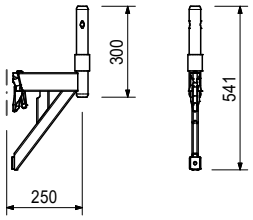
Note
Small console brackets with limit stop for fixing the decks in place.



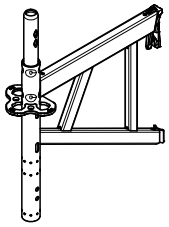


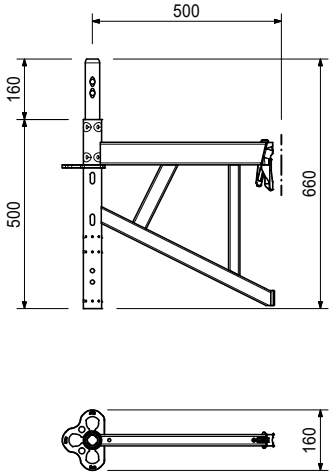
134005	2.710	**Console Bracket UCB 25**



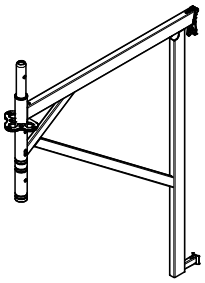


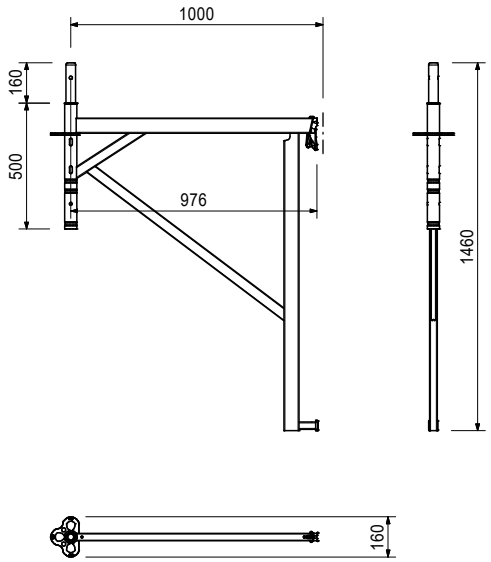
Article no.	Weight kg	
136923	5.910	**Console Bracket ECM 50**





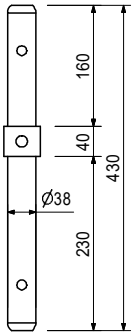
130365	11.200	**Console Bracket ECM 100**





Article no.	Weight kg	
105372	1.340	**Spigot w. Spacer Tube URE 4/42** For attaching to Element Collar URP, Connector ULS Flex and Head Frame EVH. Spacer tube enables further installation in the system grid.



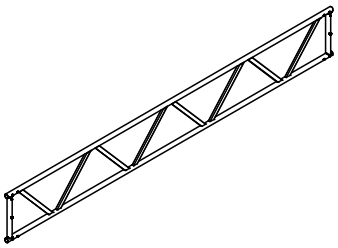


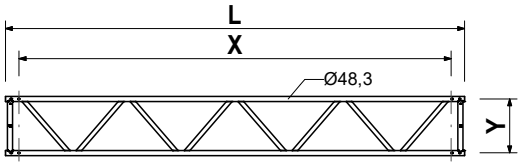
Accessories

780356	0.011	**Nut ISO 7040 M10-8, galv.**
100719	0.060	**Bolt ISO 4014 M10 x 70-8.8**

Article no.	Weight kg	**Formwork Girder Alu ULA HD**	L	X	Y
101656	18.300	**Formwork Girder Alu ULA 50/425 HD**	4,250	4,000	500
101657	22.400	**Formwork Girder Alu ULA 50/525 HD**	5,250	5,000	500
101658	26.400	**Formwork Girder Alu ULA 50/625 HD**	6,250	6,000	500
101659	37.300	**Formwork Girder Alu ULA 70/825 HD**	8,250	8,000	700

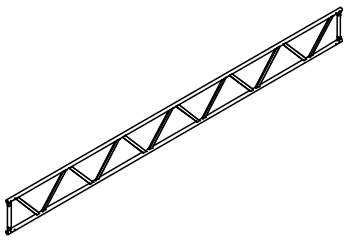
For bridging of openings.
For system-independent application.

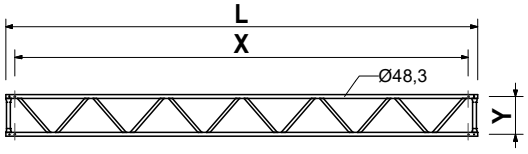




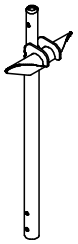
Article no.	Weight kg	**Steel Formwork Girder ULS**	L	X	Y
100330	41.700	**Steel Formwork Girder ULS 50/425**	4,250	4,000	500
100336	50.900	**Steel Formwork Girder ULS 50/525**	5,250	5,000	500
100339	60.200	**Steel Formwork Girder ULS 50/625**	6,250	6,000	500
100185	54.800	**Steel Formwork Girder ULS 70/525**	5,250	5,000	700

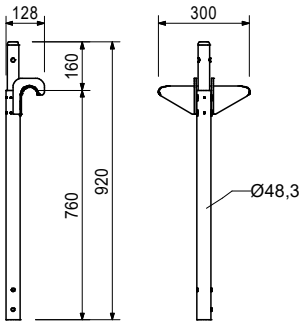
For bridging of openings.
For system-independent application.



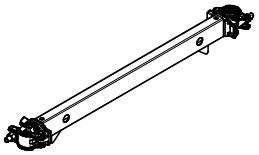


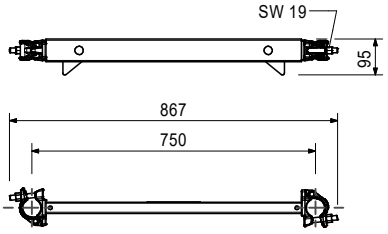
Article no.	Weight kg		
100529	5.260	**Starter Tube ULB 50/70, galv.** For Formwork Girders ULS and ULA.	**Note** Only to be used for system-independent formwork girder assembly.



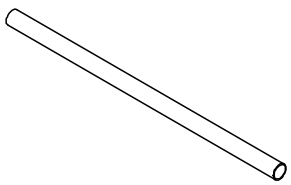


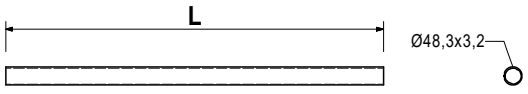
127533	3.620	**Coupling Latch UHC 75** For deck levels at any height and bracing of formwork girders.





		Steel scaffold tubes Ø 48.3 x 3.2	**L**
026415	3.550	**Steel scaffold tube Ø 48.3 x 3.2, special length**	
026417	0.000	**Cutting costs for scaffold tubes**	
026411	3.550	**Steel scaffold tube Ø 48.3 x 3.2, L = 1.0 m**	1000
026412	7.100	**Steel scaffold tube Ø 48.3 x 3.2, L = 2.0 m**	2000
026413	10.650	**Steel scaffold tube Ø 48.3 x 3.2, L = 3.0 m**	3000
026414	14.200	**Steel scaffold tube Ø 48.3 x 3.2, L = 4.0 m**	4000
026419	17.750	**Steel scaffold tube Ø 48.3 x 3.2, L = 5.0 m**	5000
026418	21.600	**Steel scaffold tube Ø 48.3 x 3.2, L = 6.0 m**	6000

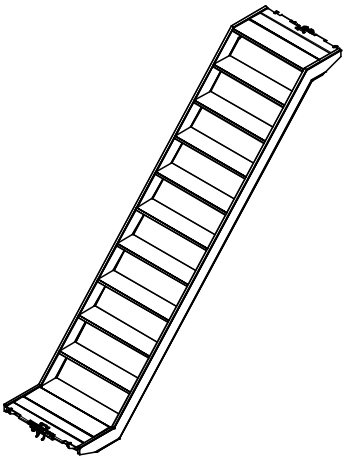


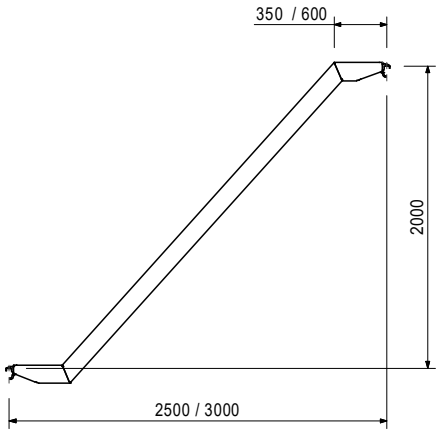


Article no.	Weight kg	
		Stair Towers UAS 75, Aluminium
411117	28.000	**Stair Tower UAS 75 x 250/200, Aluminium**
411124	32.900	**Stair Tower UAS 75 x 300/200, Aluminium**

Fit onto Horizontal Ledgers UH.

Technical data
Load Class 3 = 2.0 kN/m²

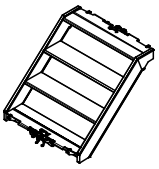


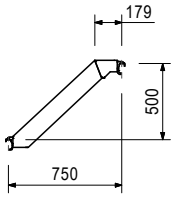


413228	10.100	**Stair Tower UAS 75 x 75/50, Aluminium**

Fit onto Horizontal Ledgers UH.

Technical data
Load Class 3 = 2.0 kN/m²

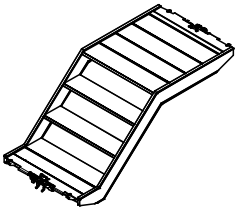


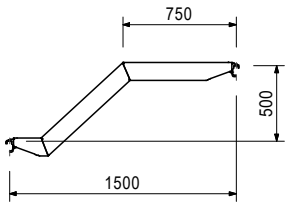


411087	17.500	**Stair Tower UAS 75 x 150/50 T, Aluminium**

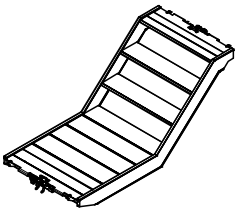
Fit onto Horizontal Ledgers UH.

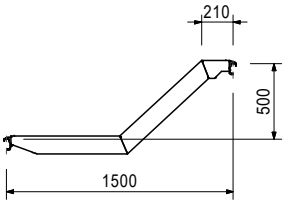
Technical data
Load Class 3 = 2.0 kN/m²



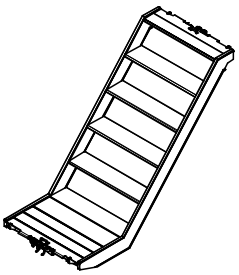


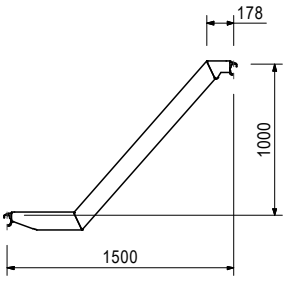
Article no.	Weight kg		
411095	17.500	**Stair Tower UAS 75 x 150/50 S, Aluminium** Fit onto Horizontal Ledgers UH.	**Technical data** Load Class 3 = 2.0 kN/m²



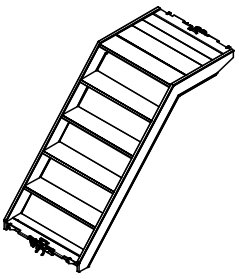


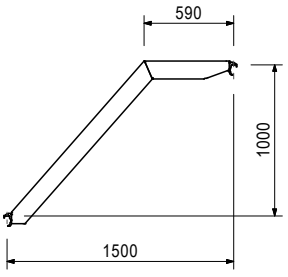
414536	17.900	**Stair Tower UAS 75 x 150/100 S, Aluminium** Fit onto Horizontal Ledgers UH.	**Technical data** Load Class 3 = 2.0 kN/m²





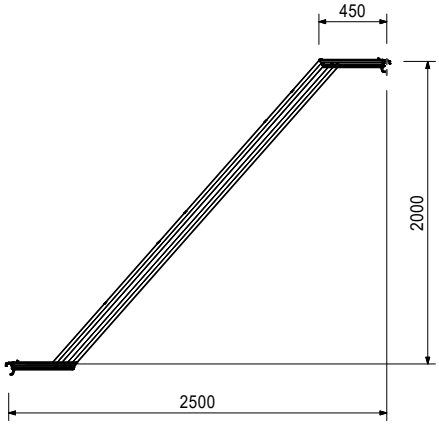
411103	17.900	**Stair Tower UAS 75 x 150/100, Aluminium** Fit onto Horizontal Ledgers UH.	**Technical data** Load Class 3 = 2.0 kN/m²



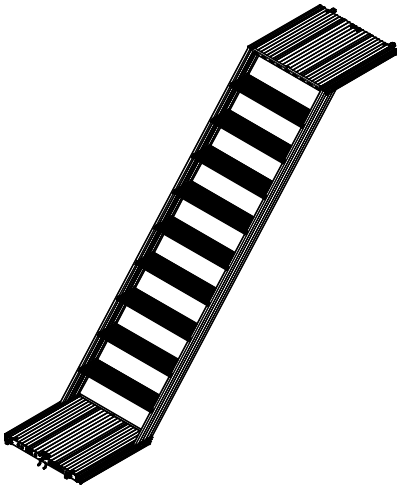


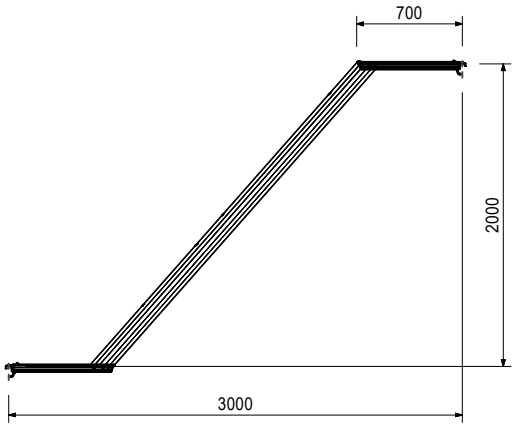
Article no.	Weight kg		
134562	29.700	**Flex Staircase UAS-2 75 x 250/200** Fit onto Horizontal Ledger UH.	**Note** Class B according to DIN EN 12811-1.



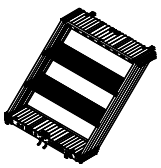


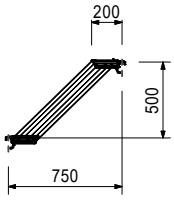
134561	33.300	**Flex Staircase UAS-2 75 x 300/200** Fit onto Horizontal Ledger UH.	**Note** Class B according to DIN EN 12811-1.



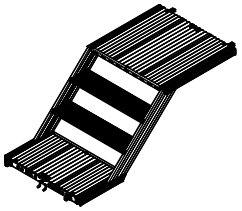


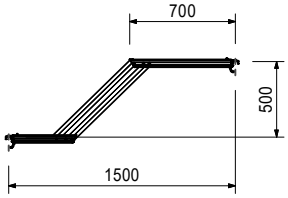
134556	11.800	**Flex Staircase UAS-2 75 x 75/50** Fit onto Horizontal Ledger UH	**Note** Class B according to DIN EN 12811-1



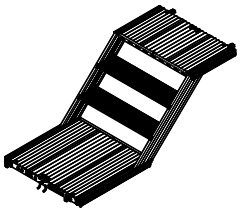


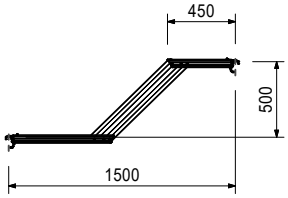
Article no.	Weight kg		
134563	17.300	**Flex Staircase UAS-2 75 x 150/50T** Fit onto Horizontal Ledger UH	**Note** Class B according to DIN EN 12811-1



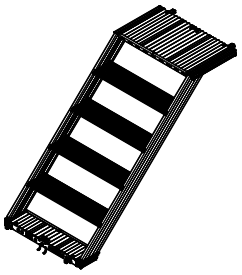


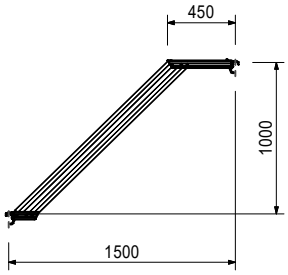
134564	17.300	**Flex Staircase UAS-2 75 x 150/50S** Fit onto Horizontal Ledger UH	**Note** Class B according to DIN EN 12811-1



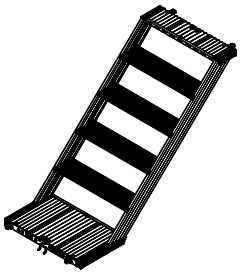


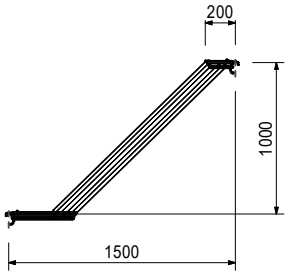
134557	18.200	**Flex Staircase UAS-2 75 x 150/100T** Fit onto Horizontal Ledger UH	**Note** Class B according to DIN EN 12811-1



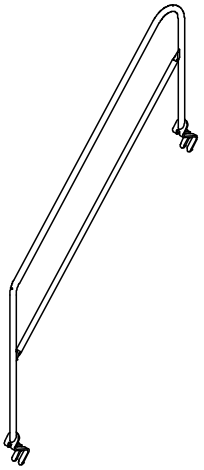


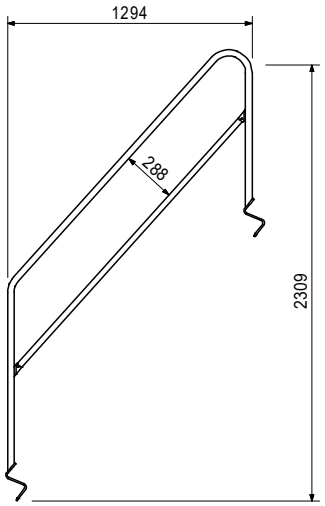
134558	18.200	**Flex Staircase UAS-2 75 x 150/100S** Fit onto Horizontal Ledger UH	**Note** Class B according to DIN EN 12811-1



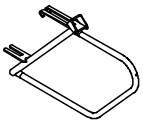


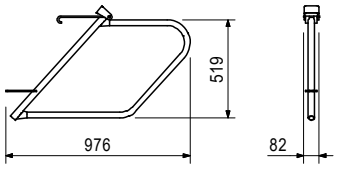
Article no.	Weight kg	
100742	10.000	**Stair Guardrail UAG** Suitable for Staircases UAS and EAS as internal and external guardrails.





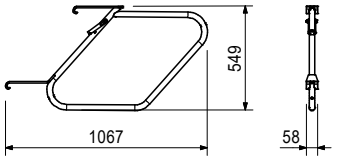
100830	4.970	**Stair Guardrail UAH** For fixing to the stringers, but only of Staircases UAS.





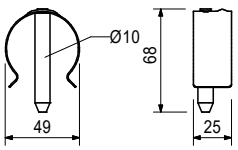
133543	4.510	**Stair Guardrail UAH-2** For fixing to the stringers of the Staircases UAS, UAS-2 and EAS.



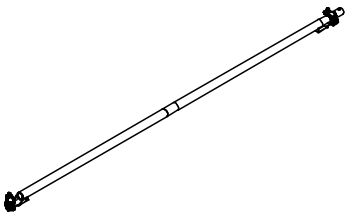


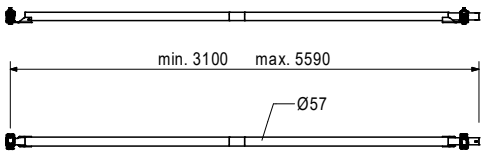
111053	0.059	**Locking pin Ø 48/57** As tension-proof connection of standards with a diameter of 48 up to 57 mm.





Article no.	Weight kg	
131093	23.700	**Multi Brace EWB**

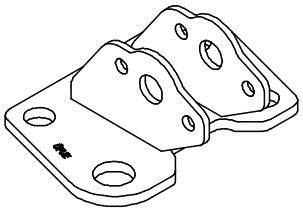


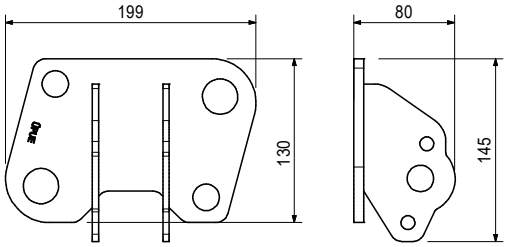


Accessories

131097	1.700	**Base plate for EWB**

Article no.	Weight kg	
131097	1.700	**Base plate for EWB**

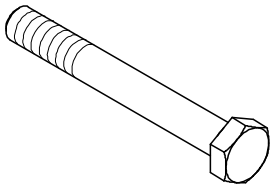




Accessories

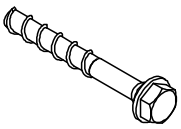
710593	0.062	**Bolt ISO 4014 M10 x 80-8.8, galv.**
112786	0.015	**Nut EN 1661 M10-8, galv.**

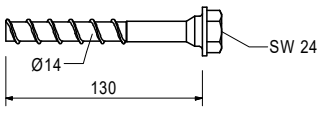
Article no.	Weight kg	
710593	0.062	**Bolt ISO 4014 M10 x 80-8.8, galv.**



Article no.	Weight kg	
112786	0.015	**Nut EN 1661 M10-8, galv.**

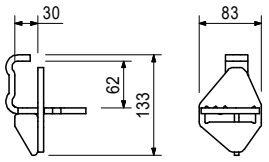
Article no.	Weight kg		
124777	0.210	**Tie Bolt PERI 14/20 x 130** For temporary fixing to reinforced concrete components.	**Note** Take the PERI Data Sheet into consideration! Hole Ø 14 mm.



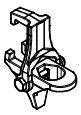


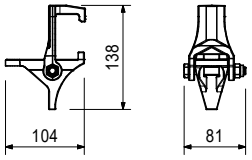
Article no.	Weight kg	
401731	0.841	**Ledger-to-Ledger Coupler UHA** For connecting horizontal ledgers at right-angles.



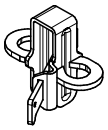


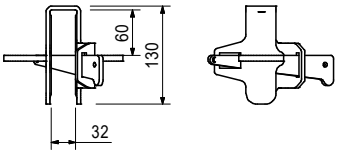
136582	0.829	**Ledger-to-Ledger Coupler UHA-2** For connecting horizontal ledgers at right-angles.



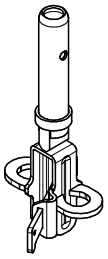


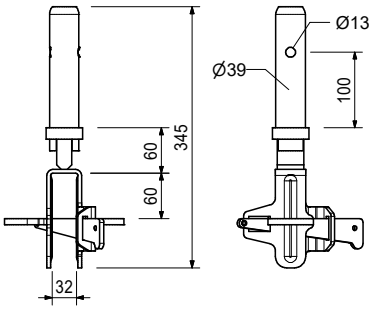
110793	1.090	**Ledger-to-Ledger Coupler UHA half**



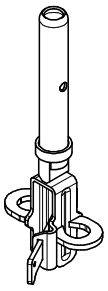


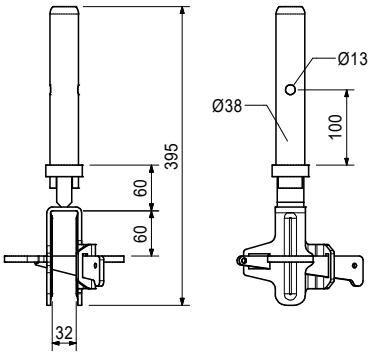
410792	1.900	**Ledger-to-Ledger Coupler UHA Half with Pin**



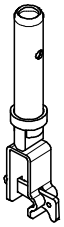


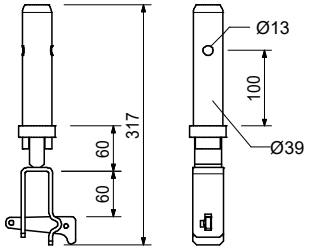
130684	2.020	**Ledger-to-ledger Coupler UHA-2 Half with Spigot**



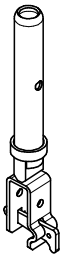


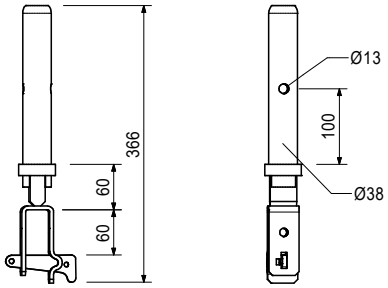
Article no.	Weight kg	
409764	1.250	**UH Spigot**



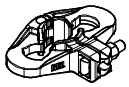


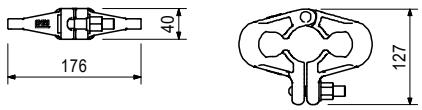
130681	1.360	**UH Spigot-2**





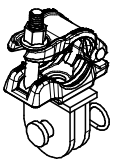
116306	1.700	**Clamping Rosette UEV 180 °**

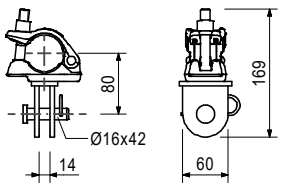




131723	1.440	**Brace Connector HDR-2** For connecting push-pull props and kicker braces to components with Ø 48 mm.

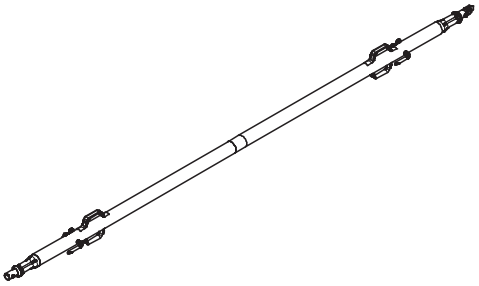
Complete with
1 pc. 027170 bolt Ø 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.

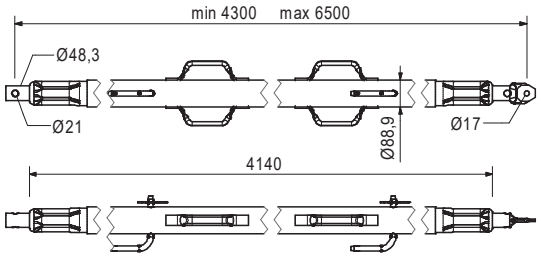




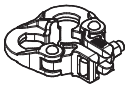
Article no.	Weight kg	
117469	39.900	**Push-pull Prop RS 650, galv.** Extension length L = 4.30 – 6.50 m. For aligning PERI formwork systems and precast concrete elements.

Note
See PERI Design Tables for permissible load.





126453	1.630	**Clamping Rosette UEV 90°**





133907	0.015	**Poly Cover Tube UPC-T**



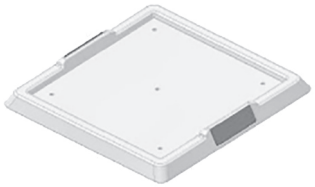
134176	0.098	**Poly Cover Rosette UPC-R**



Article no.	Weight kg	
134175	0.065	**Poly Cover Coupling UPC-C**



134177	0.186	**Spindle Lining UES** The protective underlay for base spindles protects sensitive base decks from damage by the base spindle plate.



The optimum system for every project and every requirement



wall formwork



column formwork



slab formwork



climbing systems



bridge formwork



tunnel formwork



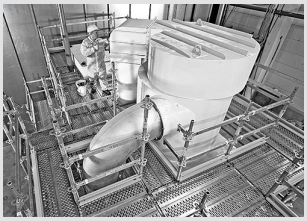
shoring



working scaffolds construction



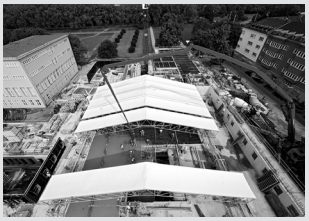
working scaffolds facade



working scaffolds industry



means of access



safety scaffolds



safety systems



system-independent accessories



services

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