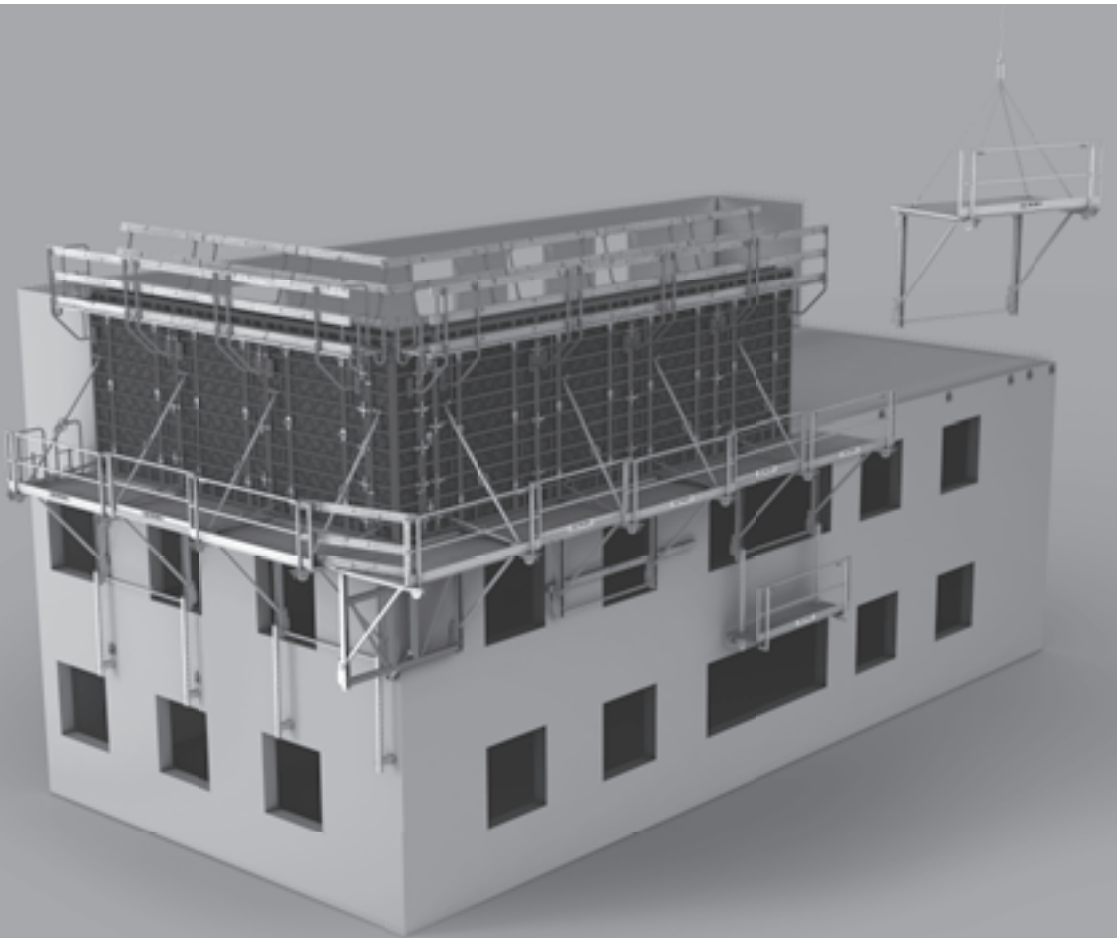


Revision 08/2017

Folding Platform FB 180-3 Platform System

Instructions for Assembly and Use – Standard Configuration



Introduction

Overview, Main Components	1
Key	4
Intended Use	5
Instructions for Use	5
General Safety Instructions	6
System-Specific Safety Instructions	7
Storage and Transportation	7
Additional Technical Documentation	7
Cleaning and Maintenance	8

A Assembly and Dismantling

A 1 Storage and Transportation	10
A 2 Folding Platform FB 180-3	11
A 3 Intermediate Platform FBZ 240	14
A 4 Folding Corner Platform FEB 180/300	18
A 5 Support Extension 200, 300	20
A 6 Finishing Platform FBN-2	22
A 7 Handrail Extension FB	23
A 8 Anchoring	
With Mounting Head FB	24
With Loop Mounting Head-2 FB	27

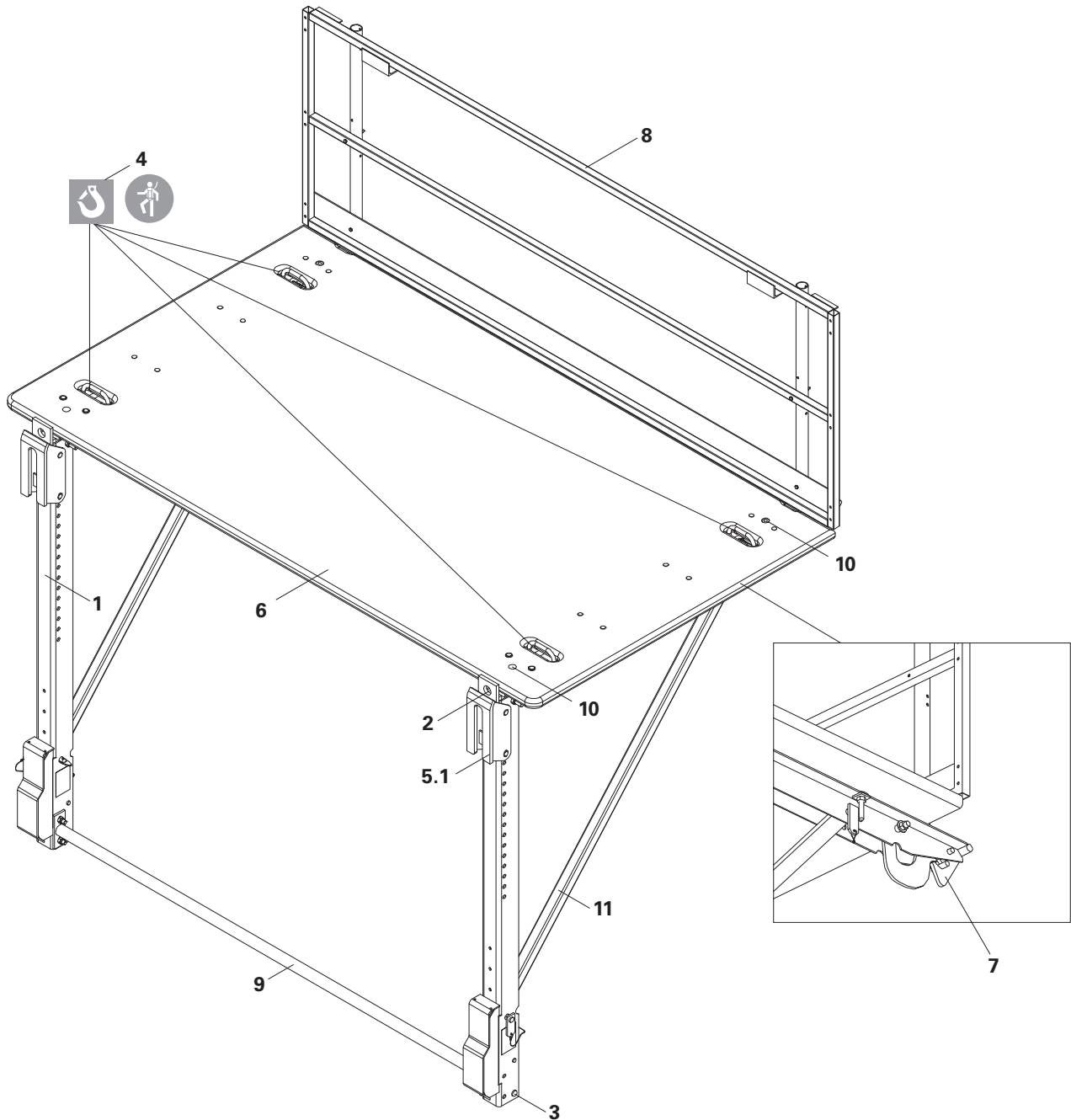
B Application

B 1 Use as Work Scaffold	28
B 2 Use as Formwork Scaffold	30
B1 + B2 Overview of FB 180-3	37
B 3 Use as Safety Scaffold	38
B 4 Use as Roof Safety Scaffold	39
B 5 Bridging of Openings	40
B 6 Possibilities of Deck Bridging	42
B 7 Layout Planning	44

Components

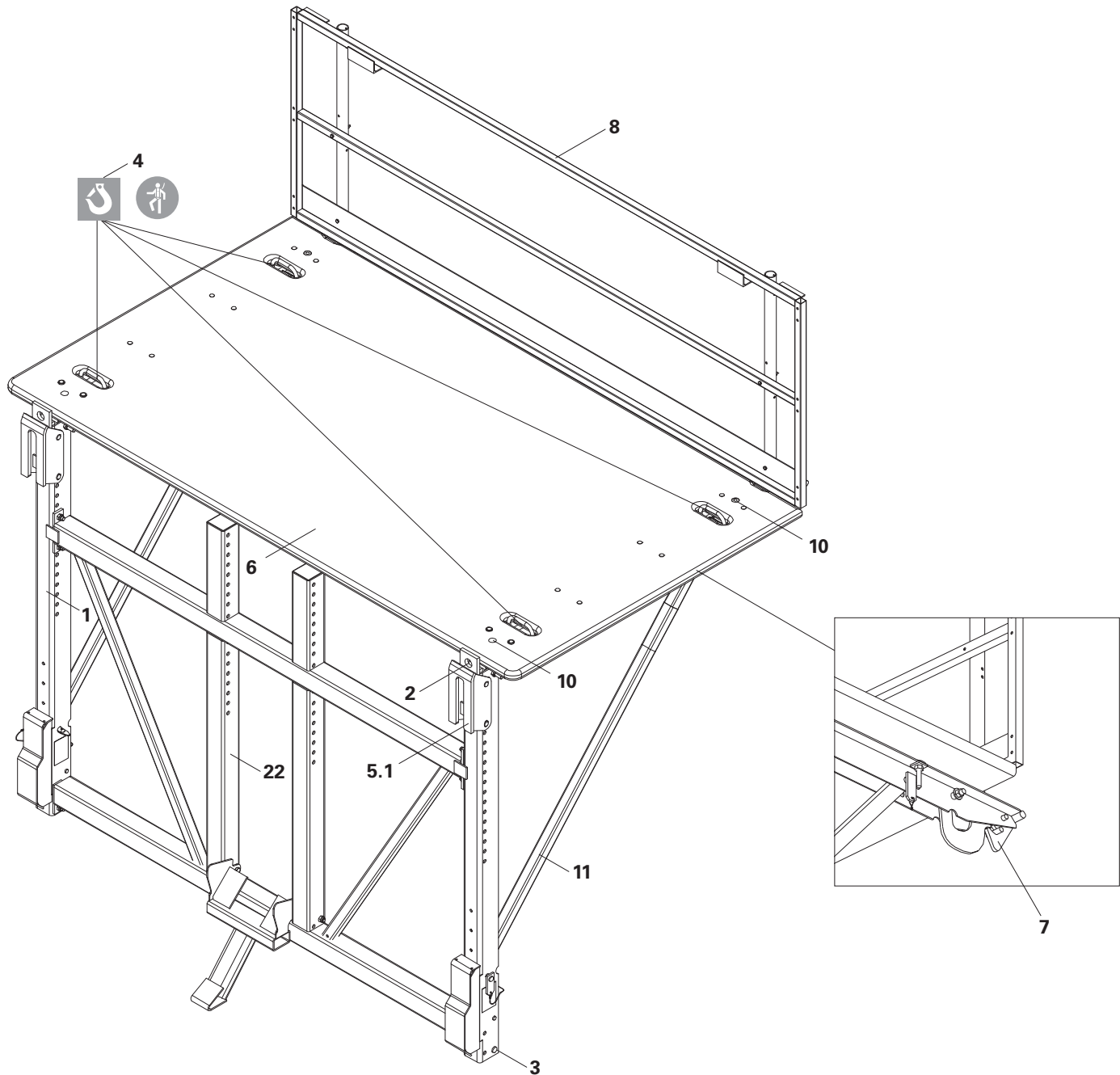
Components	46
------------	----

Overview, Main Components



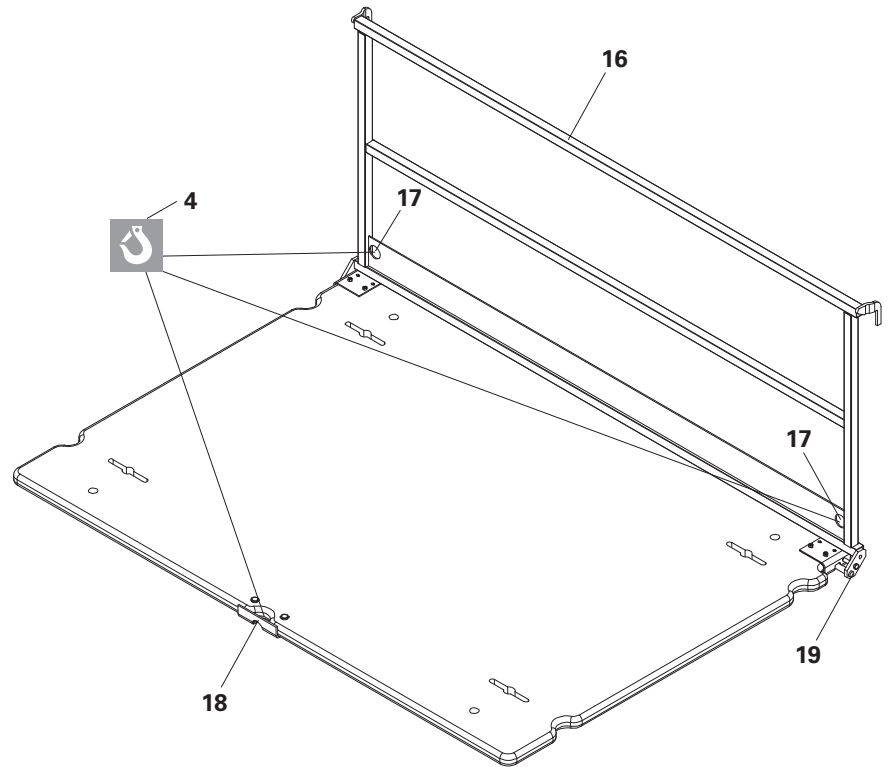
Folding Platform FB 180-3

- | | | |
|---------------|------------------------------------|--------------------------------|
| 1 Bracket | 5.1 Standard Mounting Head | 8 Main Platform Handrail Frame |
| 2 Lifting Eye | 5.2 Loop Mounting Head (not shown) | 9 Horizontal Member |
| 3 Pin Ø 25 | 6 Decking | 10 Universal Coupler DW 15 |
| 4 Crane Eye | 7 Safety Pawl | 11 Rigid Strut with Pins |



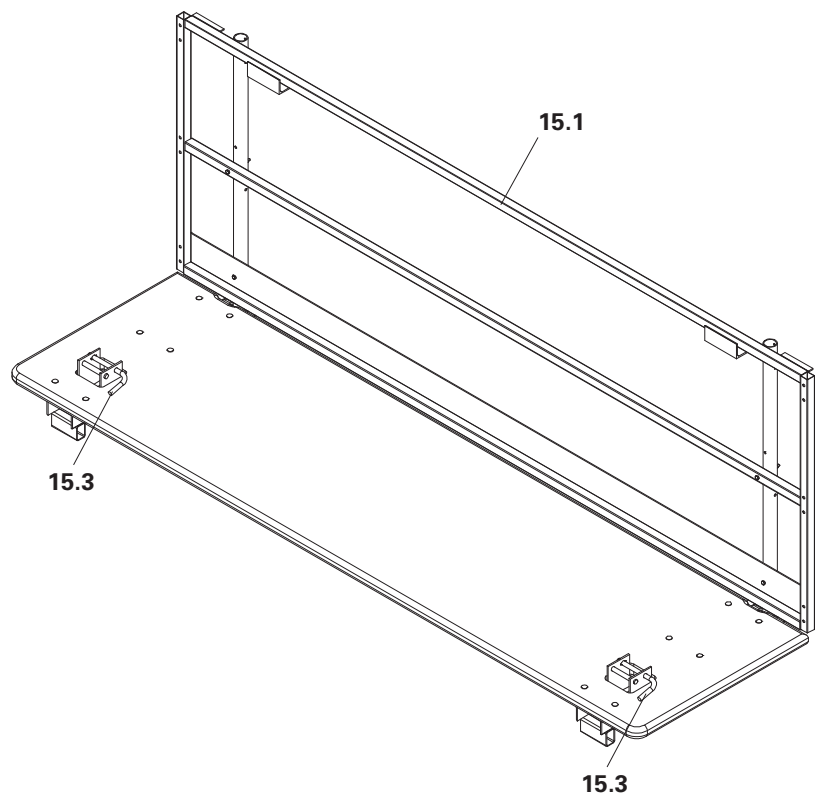
Folding Corner Platform FB 180/300

- | | | |
|---------------|------------------------------------|--------------------------------|
| 1 Bracket | 5.1 Standard Mounting Head | 8 Main Platform Handrail Frame |
| 2 Lifting Eye | 5.2 Loop Mounting Head (not shown) | 10 Universal Coupler DW 15 |
| 3 Pin Ø 25 | 6 Decking | 11 Rigid Strut with Pins |
| 4 Crane Eye | 7 Safety Pawl | 22 Corner Frame FEB |



Intermediate Platform FBZ 240

- 16 Intermediate Platform Handrail Frame
- 17 Crane Eyes on Handrail Frame
- 18 Crane Eye on Decking
- 19 Locking Bolt SW 19



Finishing Platform FBN-2






- 15.1 Finishing Platform Handrail Frame
- 15.2 Securing Hook (not shown)
- 15.3 Locking Pins

Folding Platform FB 180-3






Instructions for Assembly and Use – Standard Configuration

Key

Pictogram | Definition

-  Safety instructions
-  Important
-  Visual check
-  Tip
-  Load-bearing point

Personal protective equipment to be used

-  Personal protective equipment to prevent falling from a height (PPE)
-  Safety gloves
-  Safety shoes
-  Safety helmet
-  Safety goggles




Dimension specifications

Dimensions are usually given in mm. Other units of measure, e.g. cm, are shown in the illustrations.

Conventions

– Instructions are numbered. (1....., 2....., ...)

Arrows

Arrow representing an action 
Arrow representing a reaction of an action* 
Forces 

.....
* if not identical to the action arrow

General

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 accordingly.

For a better understanding, detailed illustrations are partly incomplete. The safety installations which have possibly not been featured in these detailed drawings must nevertheless be available.

Intended Use

Product description

The FB 180-3 work and safety scaffold system consists of:

- Main Platform FB 180-3/300
- Intermediate Platform FBZ 240
- Corner Platform FB 180-3/300 (Main Platform with Corner Platform Frame)
- Individual Bracket FB 180-3.

The Folding Platform FB 180-3 is used as a work and safety scaffold in accordance with DIN EN 12811 and DIN 4420. The platforms are pre-assembled and are completely foldable due to the foldable handrail frames. The Main Platforms FB 180-3, in combination with the Intermediate Platforms, allow a uniform bracket spacing of 2.50 m. Smaller bracket spacings between the Main Platforms can be continuously bridged by means of Intermediate Platforms.

- The decking is comprised of 45 mm thick, 15-ply, waterproof bonded wooden boards.
- All steel parts are galvanized whilst only the Corner Platform Frame and securing components are red powder-coated.
- The PERI folding platform system provides solutions for 90° internal and external corners.
- Finishing platforms and support extensions are also included in the comprehensive range of accessories.

There are two mounting possibilities:

- with the Mounting Head FB on the Wall Scaffold Hinge FB
- with the Loop Mounting Head FB on the Anchor Loop.

Technical Data:

Permissible load according to DIN EN 12811:

- Standard use with Main, Intermediate and Corner Platforms 300 kg/m² (Load Class 4).
- Special application only with Main Platforms 450 kg/m² (Load Class 5).

Max. utilisation height above ground level: 100 m, not in coastal regions.

Instructions for Use

General

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

Only PERI original components may be used. The use of other products and spare parts is not allowed.

Changes to PERI components are not permitted.

Safety Instructions

General

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

These Instructions for Assembly and Use serve as basis for the project-related risk assessment and the instructions for the provision and use of the system by the contractor (user). However, they do not replace them.

Before each use, the materials and the working areas are to be regularly checked in particular for signs of damage, stability and functionality. Damaged components must be replaced immediately on site and may no longer be used.

Safety instructions and permissible loads must be observed at all times.

Remove safety components only when they are no longer required or if the official representative of the contractor gives instructions for this to take place.

For the application, inspection and repair of our products, the current safety regulations and guidelines must be observed in the respective countries where they are being used.

Components provided by the contractor must conform with the characteristics required in these Instructions for Assembly and Use as well as with all valid construction guidelines and standards.

In particular, this applies to:

- timber components,
- scaffold tubes,
- scaffold tube couplings.

Any deviations from the standard configuration may only be carried out after a separate risk assessment has been done by the contractor (user). On this basis, appropriate measures for the working safety and stability are to be implemented.

The contractor must ensure that the Instructions for Assembly and Use provided by PERI are available for the users at all times and that they are also fully understood.

The contractor (user) must ensure the stability throughout all phases of construction. He must ensure and verify that all loads which occur can be safely transferred.

The contractor (user) has to provide safe working areas for site personnel which are to be reached through the provision of safe access ways. Areas of risk must be cordoned off and clearly marked. Hatches and openings on accessible working areas must be kept closed during working operations.

During unfavourable weather conditions, suitable precautions and measures are to be implemented in order to guarantee working safety and stability.

After an exceptional occurrence which could have harmful effects regarding the

safety of the scaffold, the contractor must immediately arrange an extraordinary inspection be carried out on the scaffold or scaffold to be used by a suitably qualified person.

Explanatory note:

- In particular, exceptional occurrences could be accidents, prolonged periods of non-use, changes carried out on the scaffold as well as natural events. This inspection takes place with the aim to identify and repair damage in a timely manner in order to ensure that the scaffold can be used safely.
- Natural events include, for example, storms, heavy rain, icing and heavy snowfall whereby the weight of snow lying on the scaffold exceeds the permissible load capacity.
- This inspection must be carried out by the authorized person representing the contractor and who actually assembles, modifies or dismantles the scaffold.

The contractor must ensure that the user fulfils the minimum requirements for personal protective equipment, e.g.:

- safety gloves,
- safety helmet,
- safety shoes,
- safety goggles.

Safety Instructions

System-Specific

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

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

Inspection of the anchoring and associated components must be carried out by the contractor (user).

Enclosure of the platforms or mounting of additional surface areas is not permissible because wind load calculations will be affected.

The platforms are to be inspected for signs of damage by authorised personnel at regular intervals. Dirt which affects the functionality is to be removed immediately.

When working at open edges of the building, such as when moving the platforms, site personnel must always be secured against falling, e.g. with rope protection. Areas of risk must be cordoned off and clearly marked.

Site personnel, construction materials or tools must not be transported with the crane during moving operations. Exceptions to this can be determined through the operational work and assembly instructions on the basis of a corresponding risk assessment carried out by the contractor.

Particular care must be taken when operating lifting equipment near the platforms. The risk of any unintentional release is to be taken into consideration in the compilation of the site-specific work and assembly instructions.

All valid safety regulations and associated Instructions for Assembly and Use are to be observed when the formwork is used. Sufficient platforms and guardrails are to be mounted in order to ensure safe installation of formwork anchors and placing of the concrete.

Storage and Transportation

Do not drop the components.

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

During the moving procedure, ensure that components are picked up and set down so that unintentional falling over, falling apart, sliding, falling down or rolling is avoided.

Use only suitable load-carrying equipment to move the components as well as the designated load-bearing points.

During the moving procedure, always guide the components by means of a rope.

Move components on clean, flat and sufficiently load-bearing surfaces only.

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

Additional Technical Documentation

- PERI Design Tables
- Building Inspectorate Approval for Anchor Sleeve M24: Z-21.6-1768 Screw-On Cone M24/DW 20: Z-21.6-1766
- Separate dimensioning information on request.
- Brochure Folding Platform FB 180-3

Cleaning and Maintenance

Formwork

Regular cleaning and care is necessary in order to maintain the value and usability of the formwork material over the long-term. Additionally, some repair work may also be inevitable due to the tough working conditions. The following tips should help keep the cleaning and maintenance costs as low as possible.

The panels (used or new) should be sprayed all over with PERI Clean, PERI Plasto Clean or PERI Bio Clean concrete release agent before every use. This makes it easier and quicker to clean the formwork. The concrete release agent should always be sprayed on thinly and evenly!

Spray rear side of the formlining with water immediately after concreting. This saves on time-consuming cleaning operations.

The formlining of the panels must be sprayed with the release agent immediately after striking if in continuous use. Only then cleaning can take place with a scraper, brush or rubber lip scraper. Important: do not clean plywood formlining with a high-pressure cleaner as this can lead to damage.

Box outs and built-in parts should be fixed with double-headed nails. This makes it easier to remove the nails later on and to a large extent prevents damage to the formlining.

Any unnecessary anchor holes should be sealed with plugs. As a result, this eliminates subsequent cleaning or repair work. Anchor holes accidentally blocked with concrete are freed by means of a steel pin from the formlining side.

When putting down bundles of reinforcement bars or other heavy objects on horizontally-stored formwork elements, suitable support items, e.g. square timbers, are to be used. This prevents indentations and damage being caused to the formlining.

If possible, concrete internal vibrators are to be used with rubber caps. This reduces the risk of damage to the formlining if accidentally „inserting“ the internal vibrator between the reinforcement and formlining.

The panels should not be treated with concrete release agent immediately before transport due to safety reasons.

Steel brushes or hard metal scrapers must not be used for cleaning powder-coated elements or accessories. Such cleaning processes will destroy the high-quality powder coating.

Use spacers for reinforcement with large-area support or flat supports. This prevents indentations being created in the formlining by the load.

Mechanical components, such as spindles or gear mechanisms, must be cleaned of dirt or concrete residue before and after use, and then greased with suitable lubricants.

Storage and transportation

Storage

The platforms can be stored in the storage area in stacks of up to 20. In order to prevent any damage, they must be offset longitudinally when stacked. (See sticker Fig. A1.03)

Folding Corner Platforms FEB can be stacked together with Folding Platforms FB. The stacking dimension remains unaffected. (Fig. A1.01)

Stacking height of folding platforms

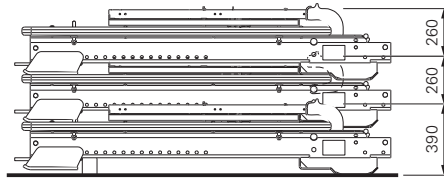


Fig. A1.01

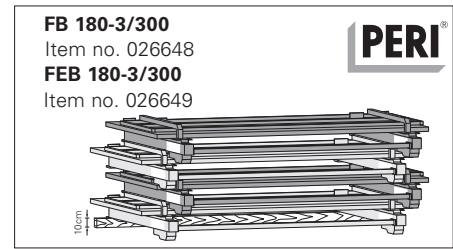


Fig. A1.03

Stacking height of intermediate platforms

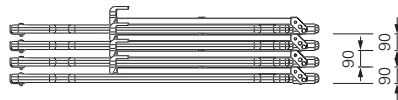


Fig. A1.02

Transport with the crane

Attach stack with up to 10 FB or FEB platforms to lifting eyes (2) by means of lifting and locking pins, and move. Stacks with intermediate platforms are to be moved with rounded lifting slings. (Fig. A1.04)

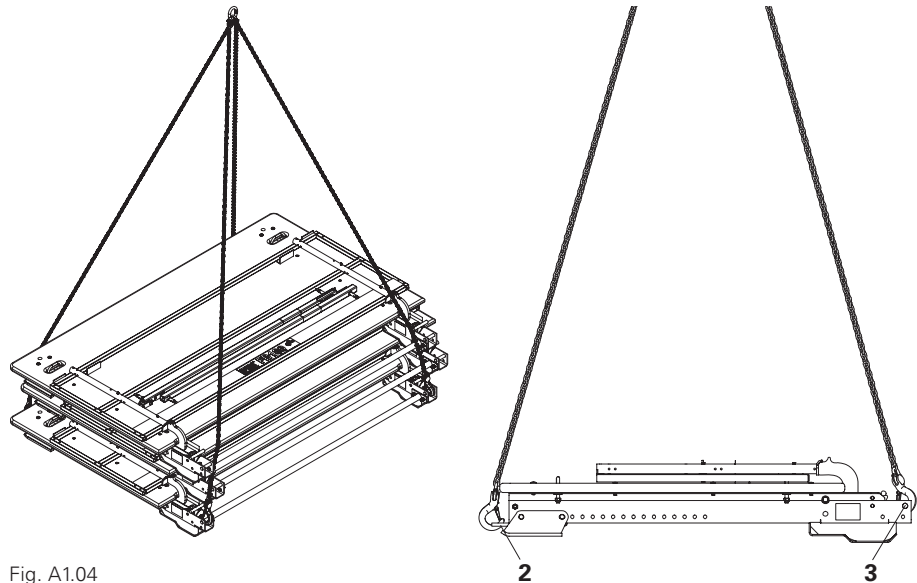


Fig. A1.04

Transport with a forklift truck

The stack can also be moved using a forklift truck. It is lifted from the longitudinal side. (Fig. A1.05)

When loading onto trucks, ensure that the lashing is uniformly used for the whole load.

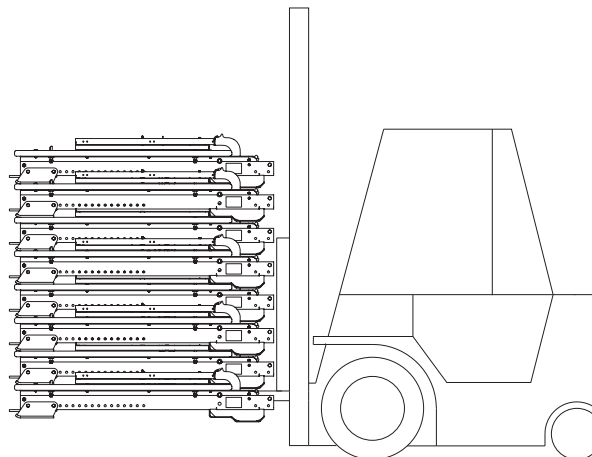


Fig. A1.05

Use as Main Platform

Assembly

1. Set up handrail frame (8), in so doing safety pawls (7) automatically engage; attach four chains of the lifting gear to crane lifting eyes (4). (Fig. A2.01)
2. Lift up safety pawls (7) and raise platform a few centimetres. (Fig. A2.01a)
3. Fold down safety pawls (7) and completely unfold platform through further lifting. (Fig. A2.02 + A2.02a)
4. Connect the struts (11) to the horizontal member first using the captive pins (11.1) and then to the vertical member (1.2). Take into account sticker with directional arrow on the struts. (Fig. A2.03 + A2.03a + A2.03b)



It is possible that the Mounting Heads (5.1) and Loop Mounting Heads (5.2) are attached to the brackets with the available bolts $\varnothing 16 \times 150$ and cotter pins 4/1 for the initial delivery.



If the platform is to be secured by means of tension straps, it makes sense that the fastening is done during assembly if the platform is suspended out of reach from the ground (see B2 Use as Formwork Scaffold).



Visual check of the safety pawls (7).

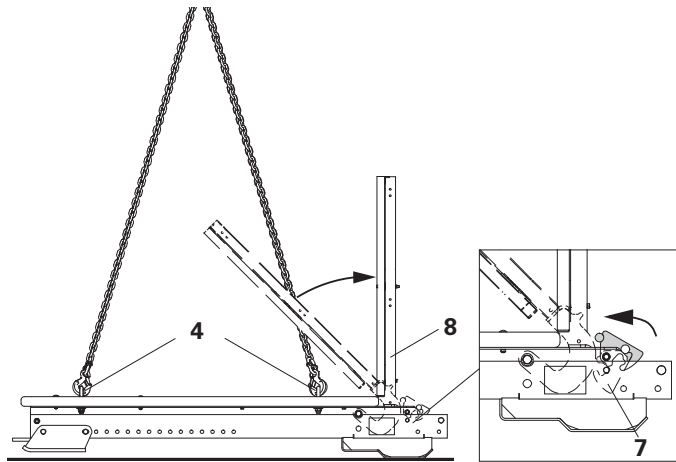


Fig. A2.01

Fig. A2.01a

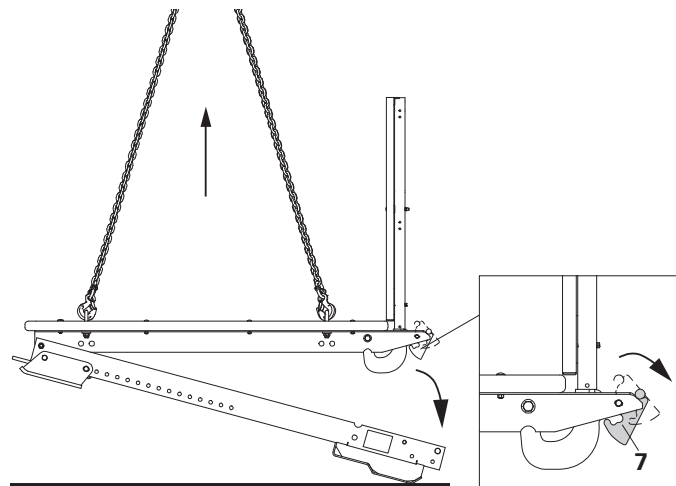


Fig. A2.02

Fig. A2.02a

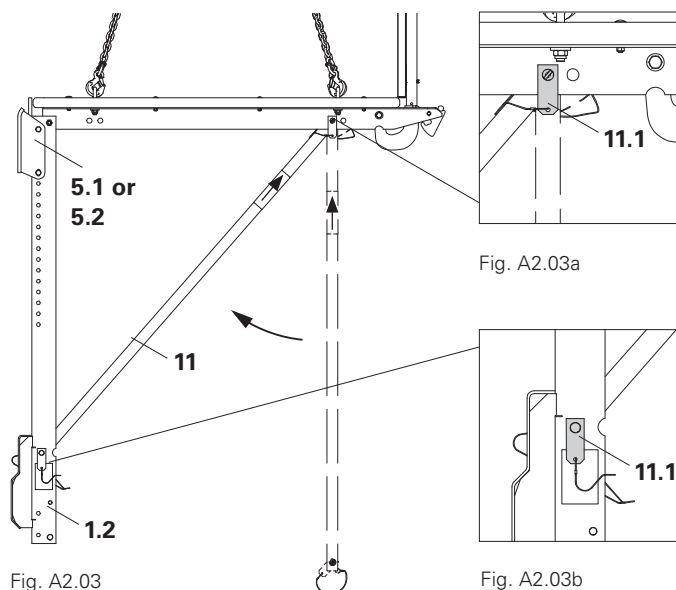


Fig. A2.03

Fig. A2.03b

Use as Main Platform



Loose scaffold parts, intermediate platforms or construction material are to be removed! Use a guide rope to ensure that the platform suspended from the crane is fully under control when being moved!



- If site personnel are to be transported on platforms that are being moved by crane due to operational reasons, the moving procedure must be described in the site assembly instructions based on a risk analysis and in compliance with all valid safety regulations.
- Folding platforms are to be secured against lifting in order to ensure positional stability if storm warnings over 90 km/h (10 Beaufort) are given, e.g. with tension straps as tension anchorage.

Moving

Attach the four chains of the lifting gear to the load-bearing points (4), lift platform and move.
(Fig. A2.04)

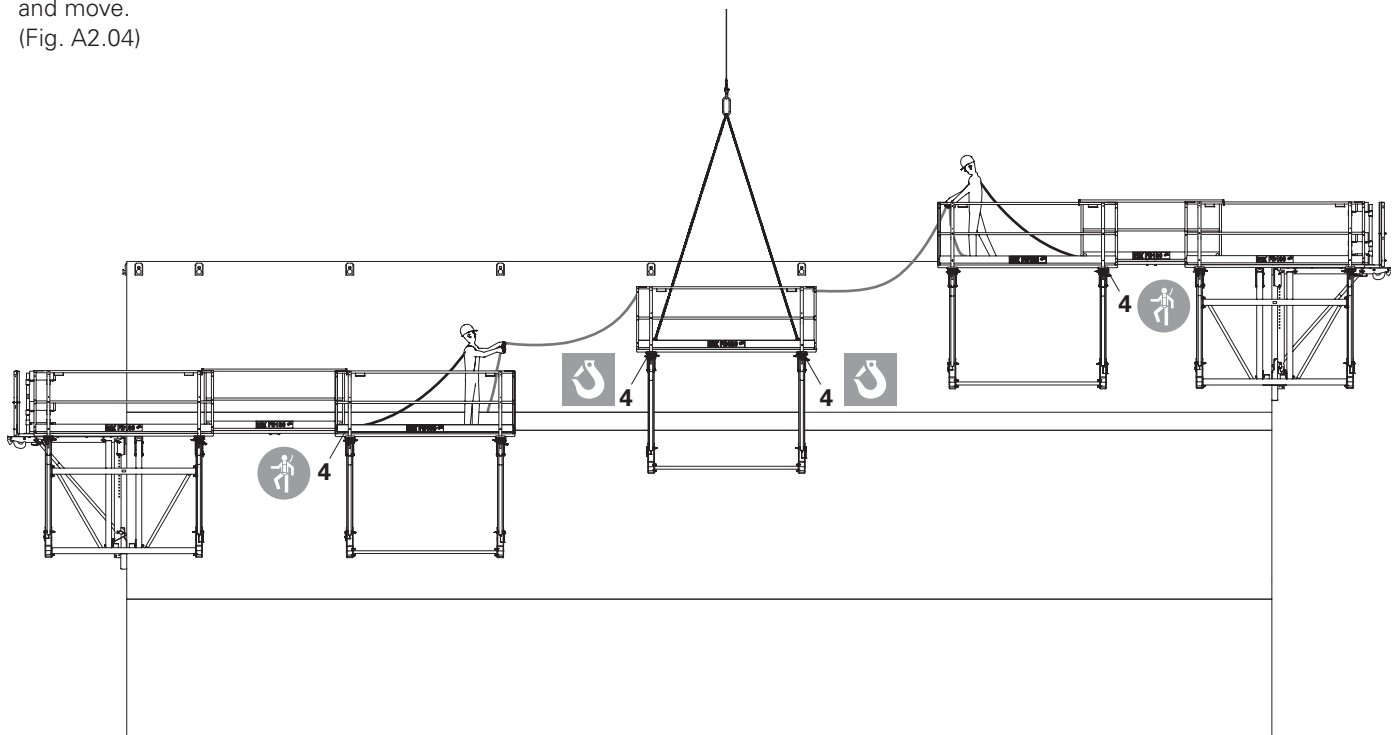


Fig. A2.04

Use as Main Platform

Dismantling

1. Lower platform suspended on the load-bearing points (4) until it rests on level ground and release pins (11.1) on vertical member (1.2). Strut will swing down into vertical position. (Fig. A2.05)
2. Pull out pins (11.1) from the horizontal member (1.1) and remove strut. Lower platform down to the ground. The safety pawl (7) engages automatically. (Fig. A2.06)
3. Disconnect crane lifting gear, swivel up pawls (7) and fold down handrail frame (8). The safety pawls (7) will fall back and lock the platform in its folded position. (Fig. A2.06a)



Visual check of the safety pawls (7).

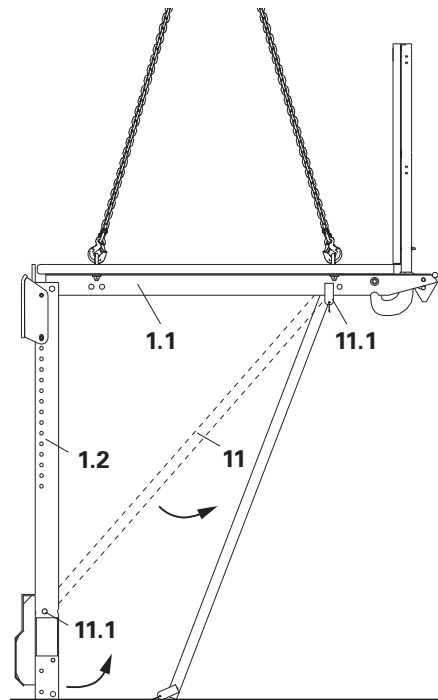


Fig. A2.05

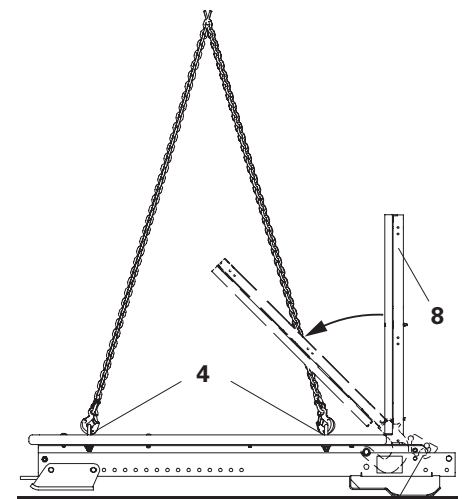


Fig. A2.06

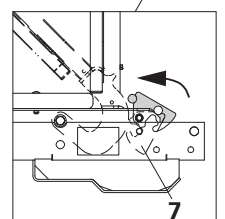


Fig. A2.06a

Use as Intermediate Platform



Use intermediate platforms only where main platforms can be safely accessed during erection and dismantling, e.g. through wall openings or by means of a securely-positioned ladder on a safe surface. Observe valid safety regulations!

Assembly

1. Unload the intermediate platforms off the lorry and set down on a level surface.
2. Fold out Handrail Frame (16) as far as possible to the stop position. Attach the three chains of the lifting gear to load-bearing points (17) and (18). (Fig. A3.01)
3. Set down intermediate platform centred on 2 main platforms while also attaching the Intermediate Platform Handrail Frame (16) to the Main Platform Handrail Frame (8). (Fig. A3.02)

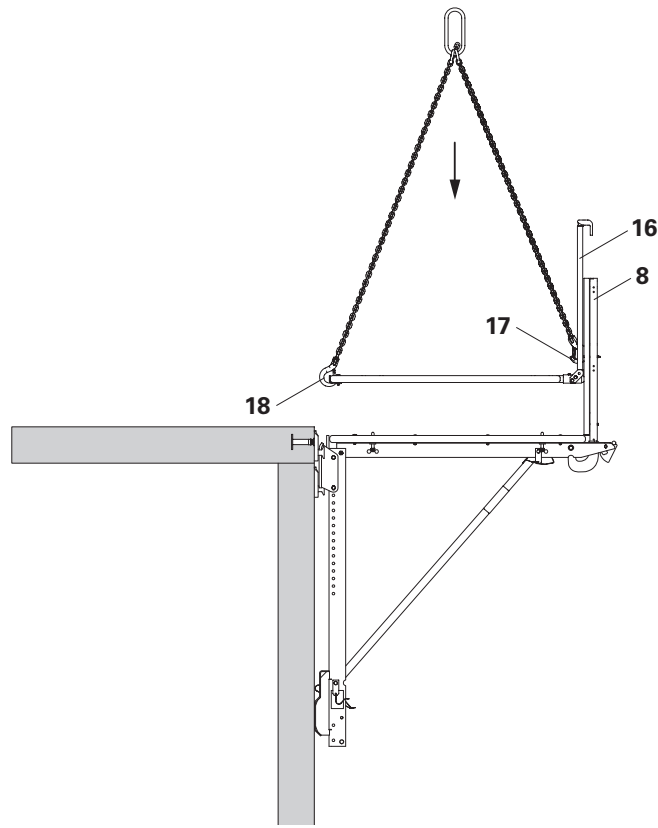


Fig. A3.01



In the event of a storm warning, the intermediate platforms must be secured against lifting, e.g. with 3 x 6 Torx 80 per supporting point or using tie wire on the guardrails.



The Intermediate Platform Handrail Frame is hooked onto the Main Platform Handrail Frame on both sides.

Dismantling

Dismantling is carried out in the reverse order as assembling.

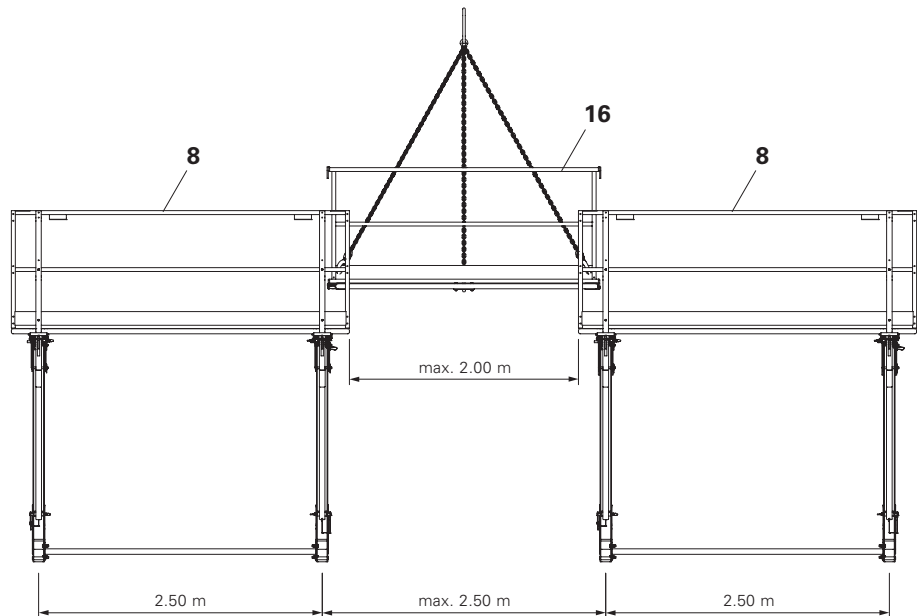


Fig. A3.02

Use as End Platform

Assembly

1. Fold out the Intermediate Platform Handrail Frame (16) and connect the three chains of the lifting gear as for the intermediate platform.
2. Place one Folding Platform Bracket FB 180 on a level surface with hand-rail post folded out, and position the Intermediate Platform on it with the crane.
3. Bolt the intermediate platform in the Universal Couplers (10) of the Folding Platform Brackets by means of 2 Screw Plates DW 15/115 (20). (Fig. A3.03)
If an end guardrail is required, 2 Guardrail Posts FBP (21) are to be used instead of the screw plates. (Fig. A3.04)

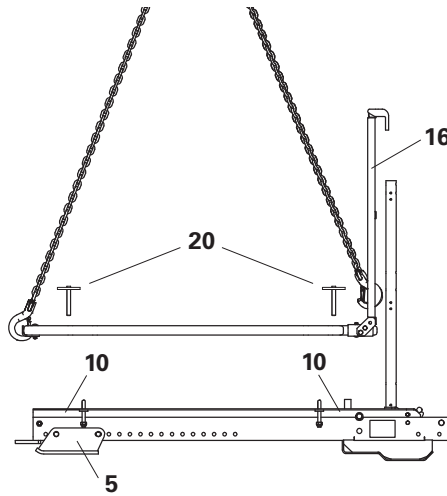


Fig. A3.03



To ensure the platform decking is horizontal, the Standard Mounting Head or Loop Mounting Head (5.1 or 5.2) on the End Platform Brackets must be positioned 5 cm lower than the brackets of the main platform.

Assembling the guardrails

2 x Handrail Boards and 1 x Toeboard
3 x 15 cm, L = 1.60 m.
Fixing by means of Torx 6 x 40.
(Fig. A3.04)

Alternatively:

2 x Scaffold Tubes \varnothing 48.3 mm with couplers and 1 x Toeboard 3 x 15 cm or two End Handrail Frames 55 can also be used.

Dismantling

Dismantling is carried out in the reverse order as assembling.

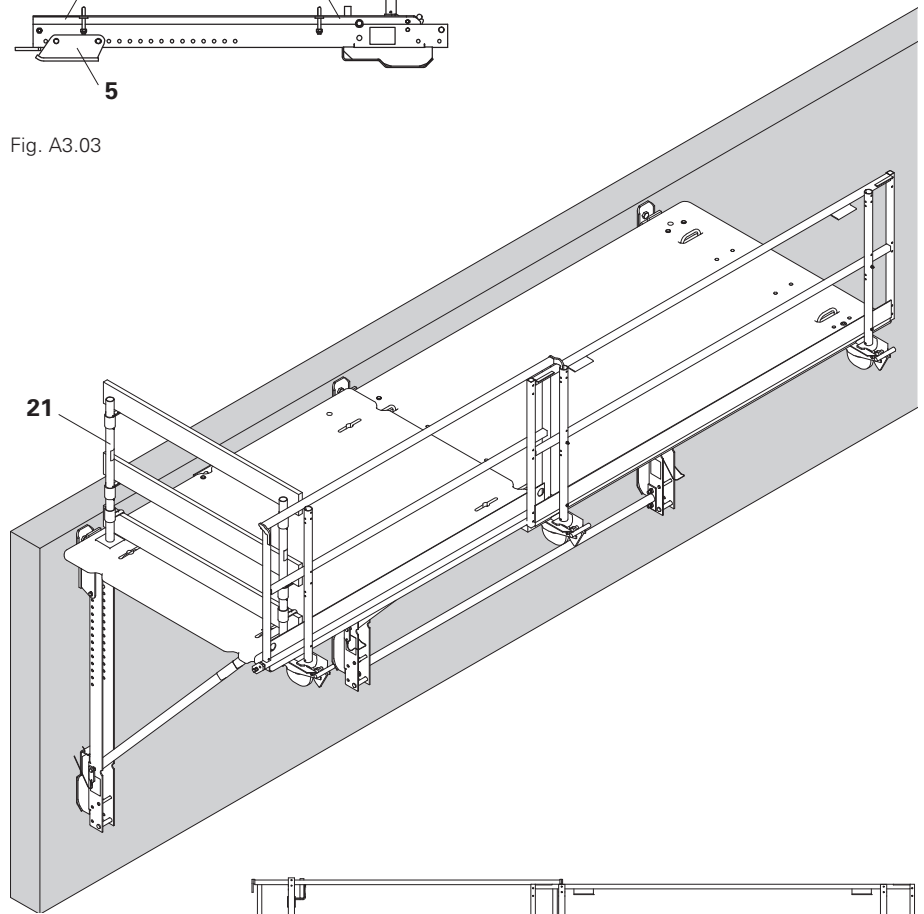


Fig. A3.04

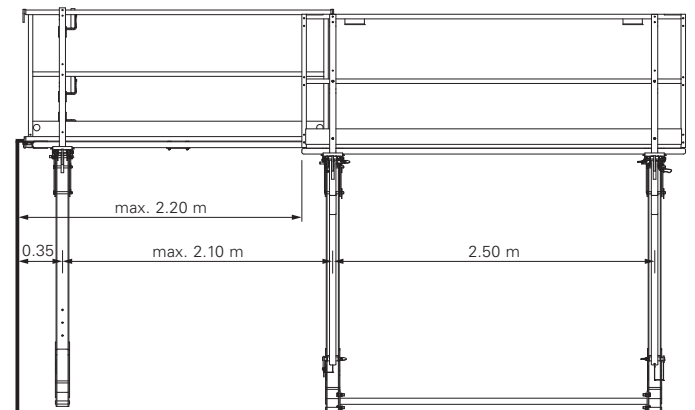


Fig. A3.04a

Use as Internal Corner Platform

Assembly

1. The assembly of the Internal Corner Platform FBZ takes place in the same way as the End Platform with an additional bolted-on Folding Platform Bracket FB 180.
2. Position the platform and attach to the bracket, then set down on the neighbouring Main Platform (A).
3. Attach Main Platform (B).
4. Handrails (16) of the Internal Corner Platform FBZ are removed according to the following instructions and attached temporarily to the Handrail Frame of the Main Platform.
5. Gaps in the decking as well as the toe board between the Internal Corner Platform and next Main Platform are to be closed with materials provided by the contractor.
(Fig. A3.05)

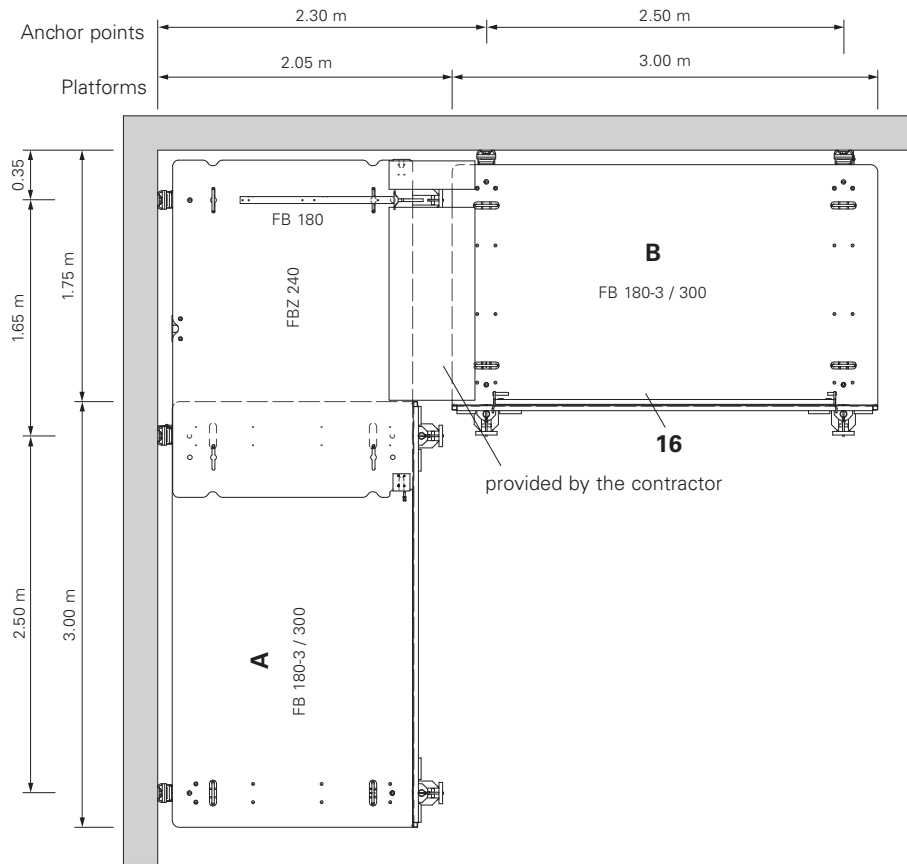


Fig. A3.05

Removal of Handrail Frame

1. Place the Handrail Frame in a 45° position, loosen Locking Bolt (19) (SW 19), and push frame to the right as seen from the platform. (Fig. A3.06)
2. Raise the right-hand side of the frame, push it to the left and then remove. (Fig. A3.06a)

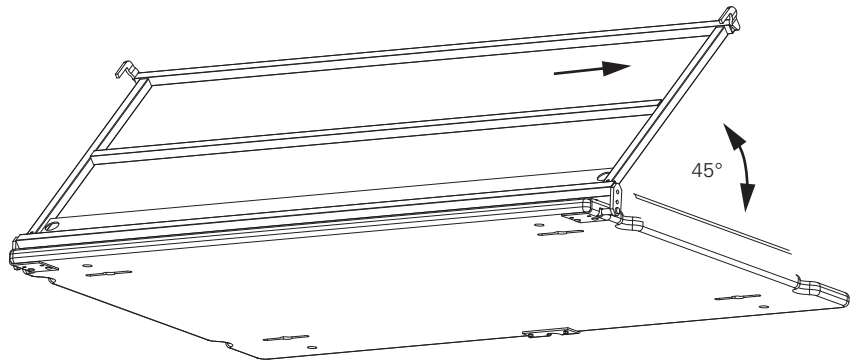


Fig. A3.06

Installation

Mounting takes place in the reverse order as for dismantling.

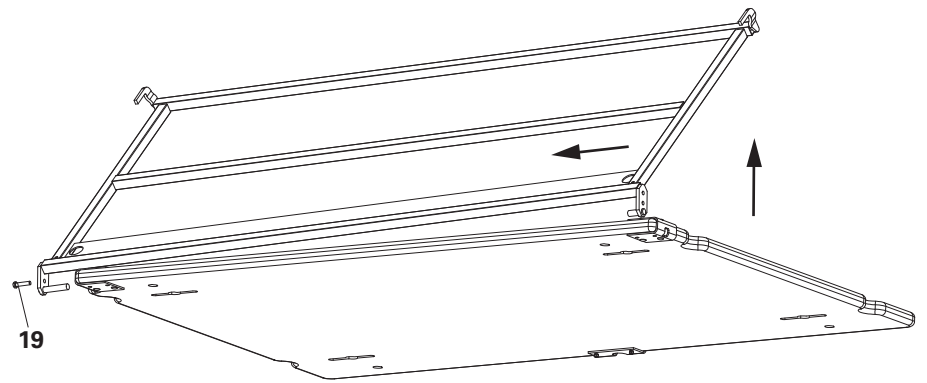


Fig. A3.06a

Use as External Corner Platform

Each Folding Platform FB 180/300 can be converted into a Folding Corner Platform FEB 180/300 at any time.



Completely swing out the Support (23a)!

Converting FB to FEB

1. Dismantle the horizontal member (9) (see Overview of Main Platform).
2. Corner Platform Frame FEB (22) is connected using the M16 x 45 bolts provided on the frame. (Fig. A4.01)
3. Fix Mounting Head (5) according to the application to the Corner Platform Frame FEB (22). (Fig. A4.01)

Assembly

The Folding Corner Platform is folded similarly to the Main Platform. See A2.



With the Support (23b) in a retracted position and using the external mounting points (5), the Folding Corner Platform can be employed on the straight sections of wall without modification. (Fig. A4.02)

When using the Folding Corner Platform FEB, height adjustment is limited to 5, 10, 15, 65 and 70 cm. (Fig. A4.03)

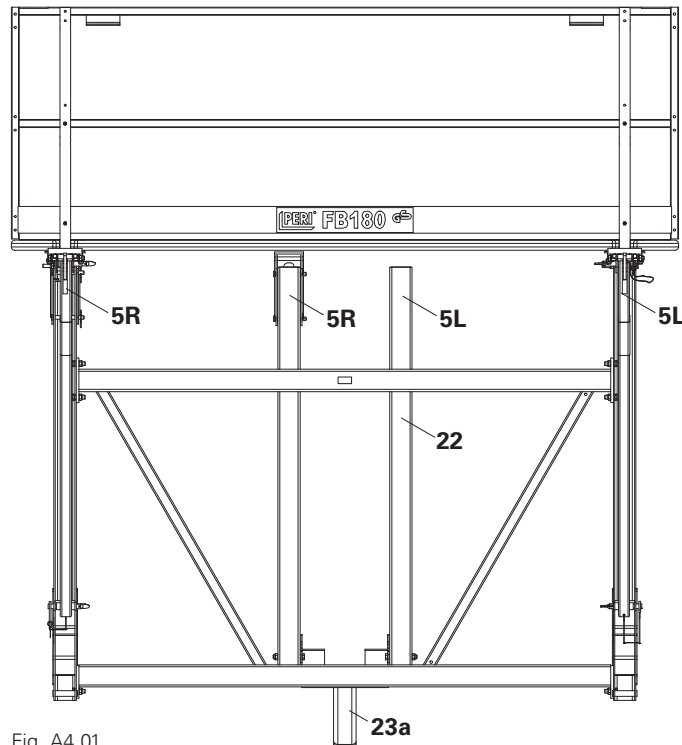


Fig. A4.01

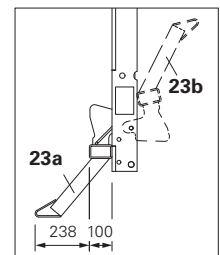
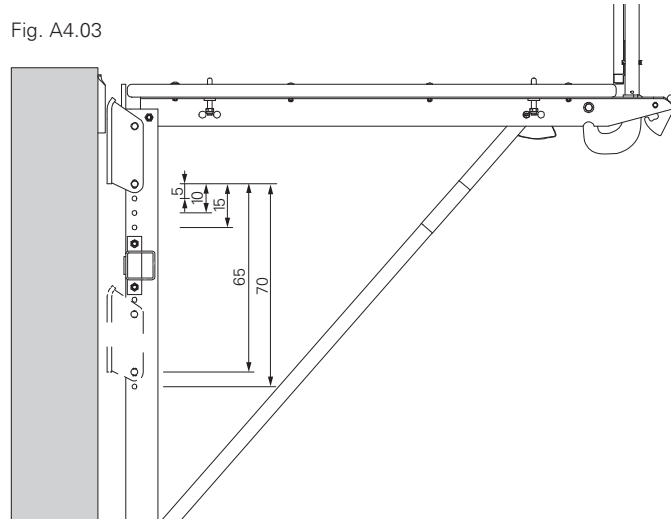


Fig. A4.02

Fig. A4.03



External corner, left

- Platform cantilevered to the left.
- Mounting Heads (5) in position (5L). (Fig. A4.04)

External corner, right

- Platform cantilevered to the right.
- Mounting Heads (5) in position (5R). (Fig. A4.04a)

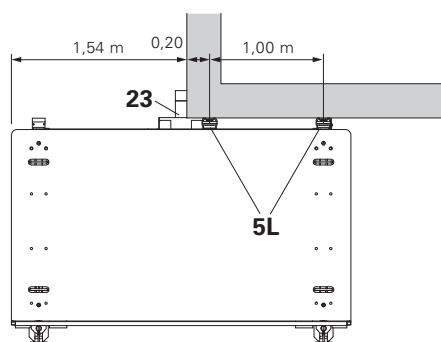


Fig. A4.04

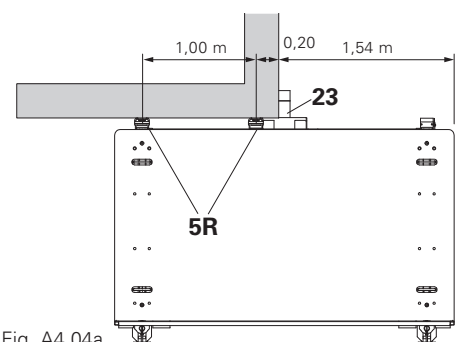


Fig. A4.04a

Use as External Corner Platform



Do not impose any additional loads on the cantilevered part of the Folding Corner Platform through intermediate platforms, wide-span board overlapping or reinforcement scaffold!



In the event of a storm warning, loose gap coverings must be secured against lifting.

Assembly

The exact 20 cm anchor spacing of the Corner Platform ensures the functionality of the swivelling Support (23a).

The anchor spacing of ≥ 22 cm of the platform positioned opposite prevents any anchor plate collision.

1. On the open end of the Folding Corner Platform, screw 2 x End Posts FBP (21) into the Universal Couplers (10).
2. Mount 3 x 15 cm Handrail Boards or $\varnothing 48.3$ mm scaffold tubes with couplings and toe boards provided by the contractor. Secure boards and toe boards in position with Torx 6 x 40.
3. The gap in the decking between the Folding Corner Platform and the Main Platform around the corner is closed with material supplied by the contractor. (Fig. A4.05 + A4.06)

Dismantling

Dismantling is carried out in the reverse order as assembling.

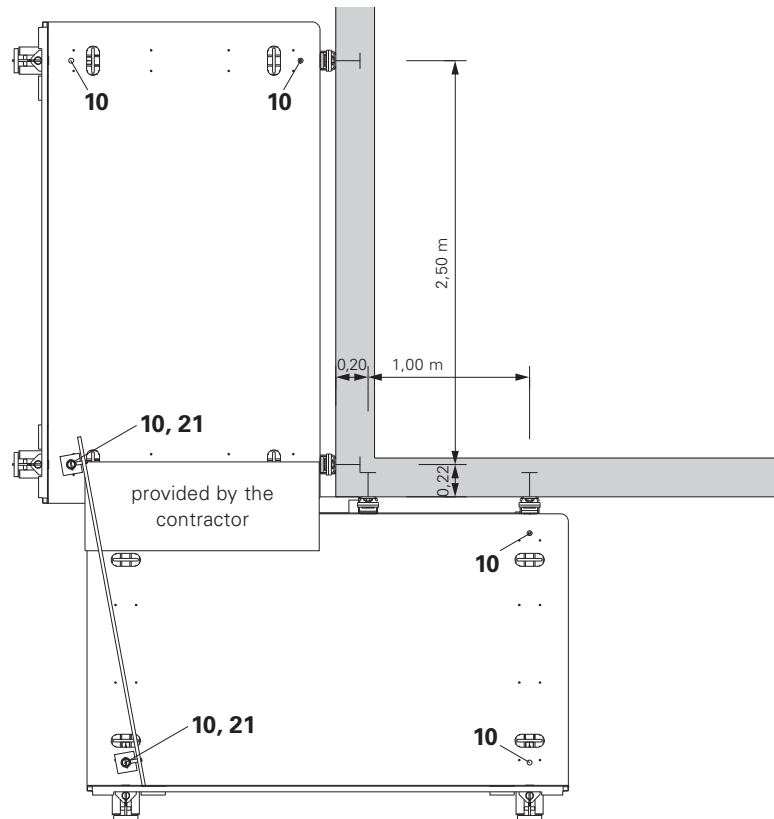


Fig. A4.05

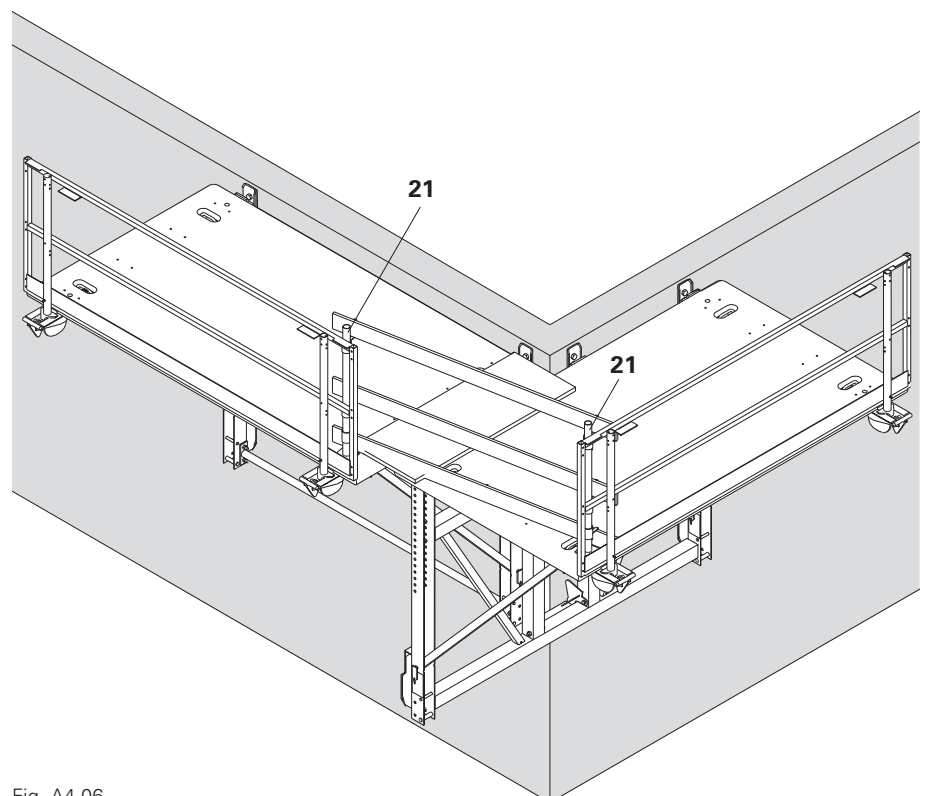


Fig. A4.06

Support Extension 200

Assembly

1. Hook the Support Extension 200 (12) onto the $\varnothing 25$ mm bottom pin (3) from behind and allow it to swing back into the vertical position. (Fig. A5.01)
2. The securing hook (12.1) drops down and automatically secures. (Fig. A5.01a)



Visual check of the securing hooks (12.1).

Dismantling

Open the securing hook (12.1). Dismantling takes place in the reverse order to assembling.

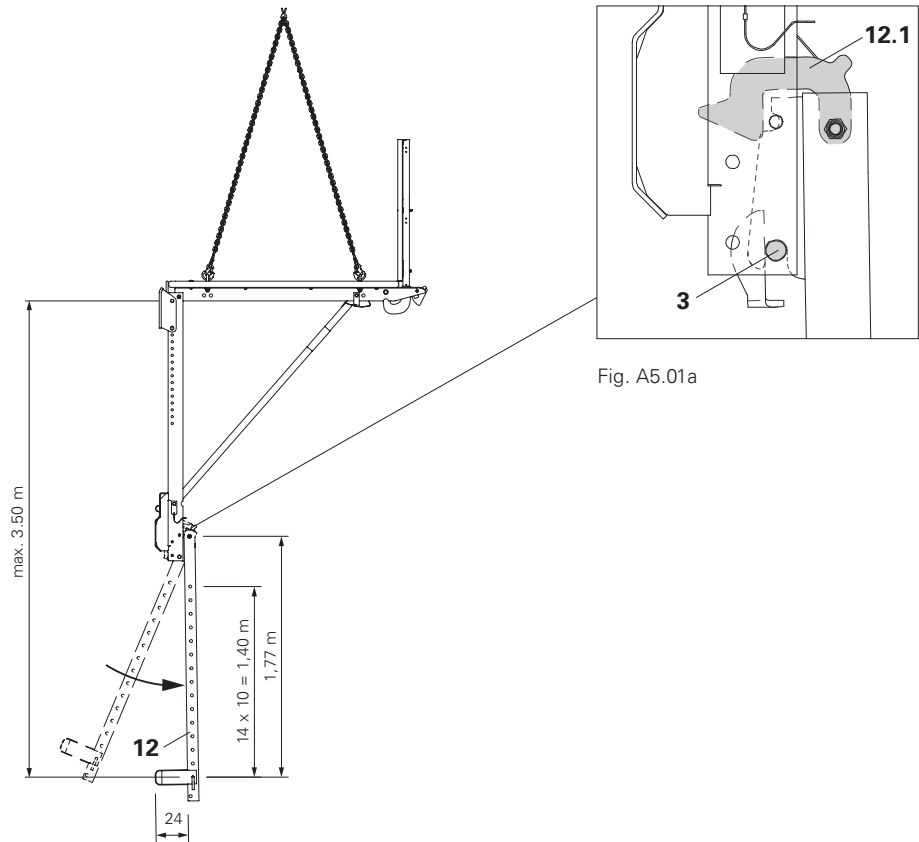


Fig. A5.01

Examples

Working scaffold
Bridging a wall opening.
(Fig. A5.02)

Safety scaffold
Reducing the support height h by approx. 20 cm.
(Fig. A5.03)

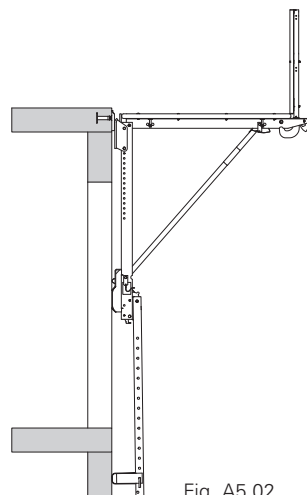


Fig. A5.02

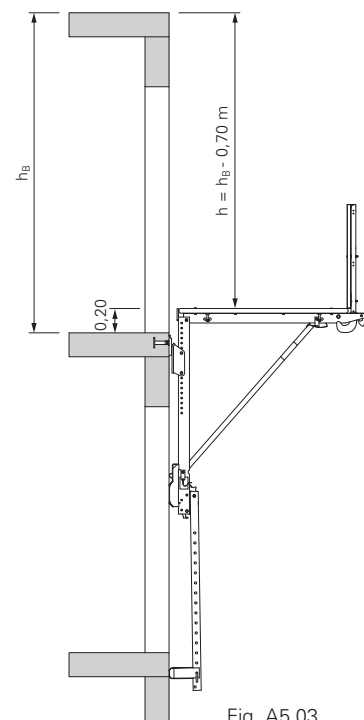


Fig. A5.03

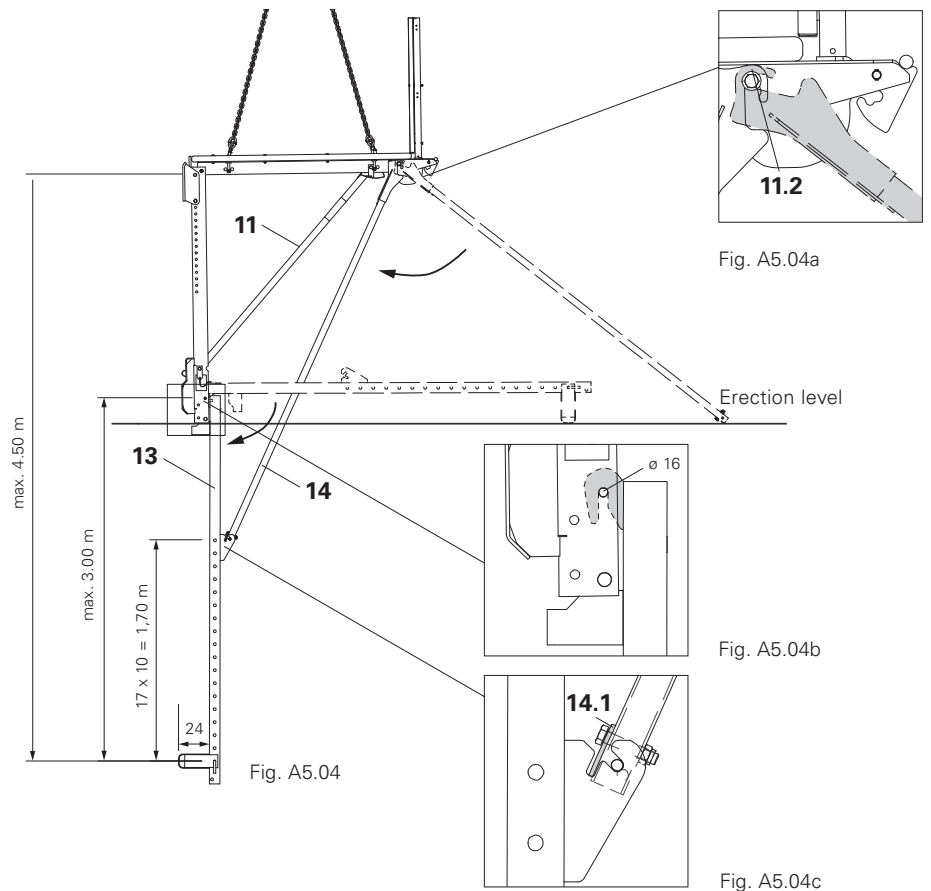
Support Extension 300



Support Extension 300 may only be used in combination with the Compression Strut FB-2 (14)!

Assembly

1. Hook the Support Extension 300 (13) onto the $\varnothing 16$ mm top pin from behind. (Fig. A5.04)
2. Hook the Compression Strut FB-2 (14) onto the top projecting pin (11.2) from behind. (Fig. A5.04a)
3. Lift the platform with the crane to allow the Support Extension 300 (13) and the Compression Strut FB-2 (14) to swing down into the vertical position where they cannot be taken off the pins. (Fig. A5.04)
4. Turn locking washer (14.1) of the Compression Strut FB-2 upwards, hook Compression Strut onto Support Extension 300 and turn locking washer (14.1) downwards. (Fig. A5.04c)



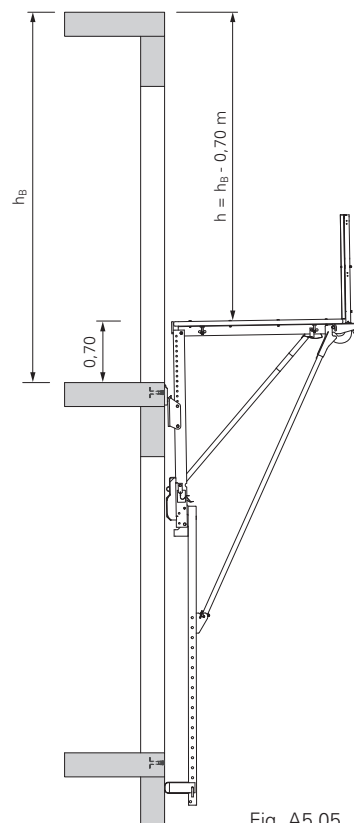
Visual check of the locking washer (14.1).

Dismantling

Dismantling is carried out in the reverse order as assembling.

Example

Safety scaffold
Bridging a wall opening and reducing the support height h by $>$ approx. 70 cm. (Fig. A5.05)



Finishing Platform FBN-2

The Finishing Platform (15) can be mounted on the Support Extensions 200 and 300 at the height required.

Assembly

1. Set the Finishing Platform down on a pair of trestles and raise the Handrail Frame (15.1); in so doing, the securing hook (15.2) will drop into a vertical position and lock. (Fig. A6.01 + Fig. A6.01a)



Visual check of the securing hooks (15.2).

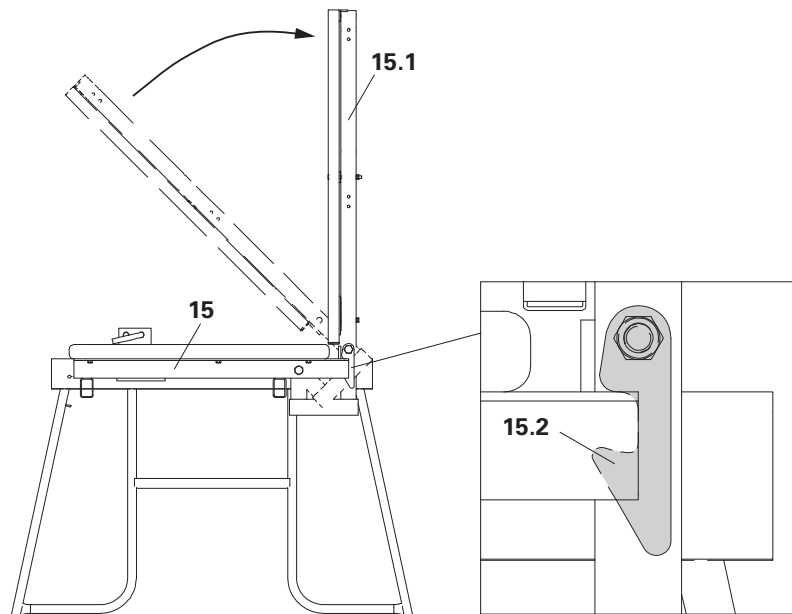


Fig. A6.01

Fig. A6.01a

Assembly on the Main Platform

1. Release captive locking pins (15.3) and insert Main Platform, with Support Extensions fitted, into the openings in the decking with the crane. (Fig. A6.02)
2. Position Finishing Platform FBN-2 at the required height and insert locking pins. (Fig. A6.02a)



Close the intermediate area of the finishing platform with materials supplied by the contractor. The use in connection with intermediate platforms is only partly possible.

Dismantling

1. Open securing hooks (15.2). Dismantling is carried out in the reverse order as assembling.

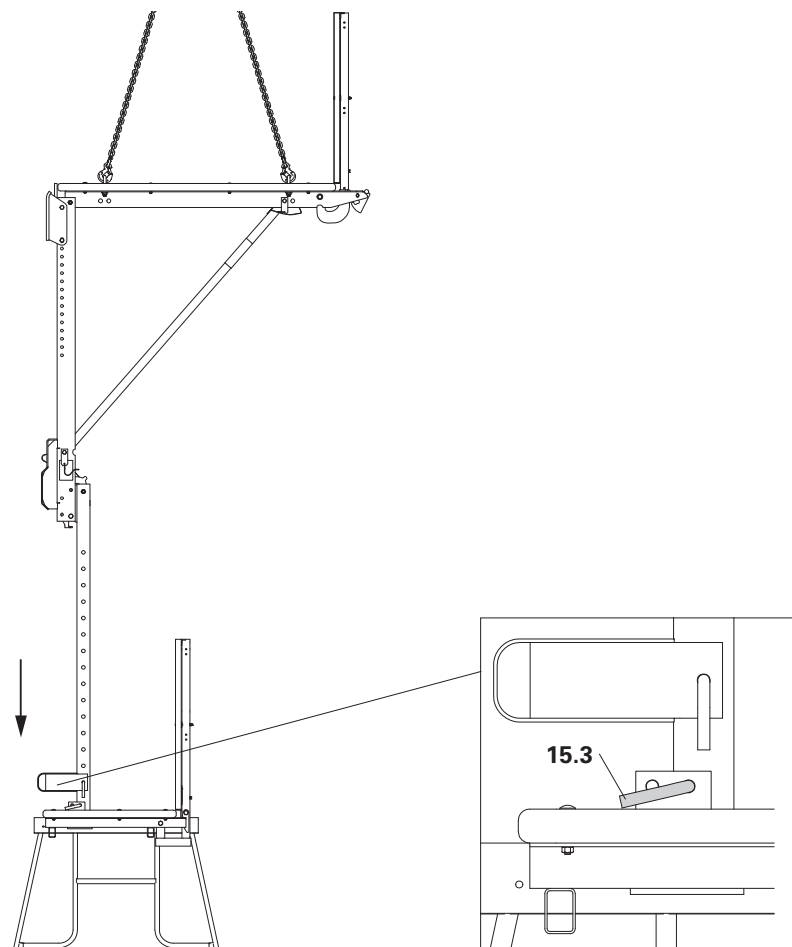


Fig. A6.02

Fig. A6.02a

Guardrail Extension FB



All safety nets used must be approved for use in their function.

For example, Net Type A2 according to DIN EN 1263-1

Energy absorption ≥ 4.2 kJ.

Assembly

1. Insert the Handrail Extension FB (25) into the openings at the top of the Handrail Posts of the Main Platform as far as possible.
2. Attach Scaffold Tube $\varnothing 48.3$ (27) to the Safety Net (26) and bolt to the Scaffold Tube Coupling (25.1) of the Guardrail Extension FB.



A $\varnothing 48.3$ mm Scaffold Tube (27) threaded into the safety net at the bottom end is positioned on the platform for stabilization. (Fig. A7.01)

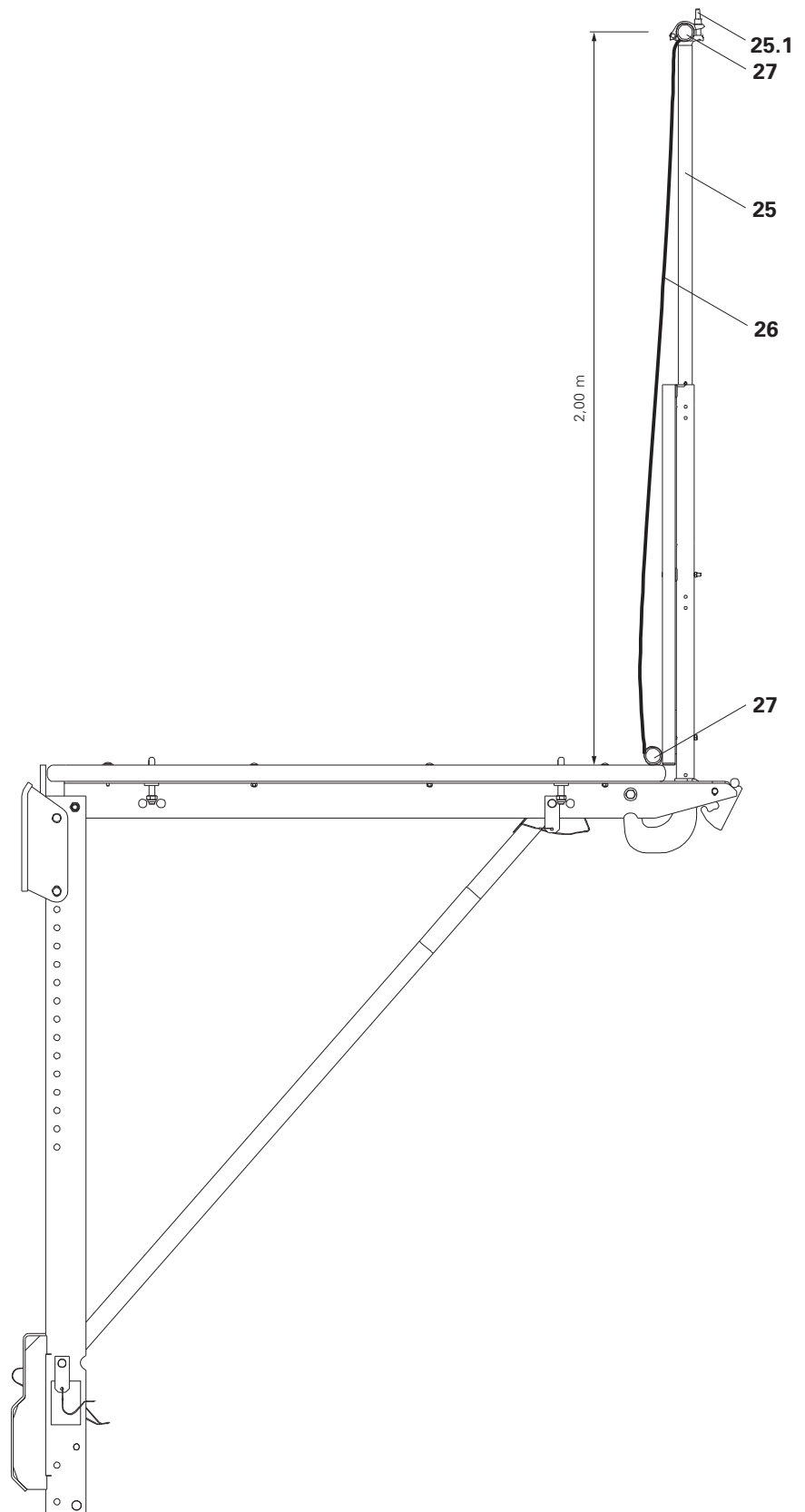
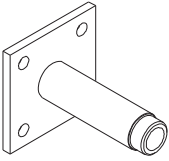

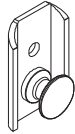
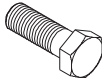
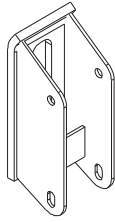


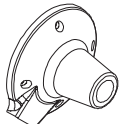
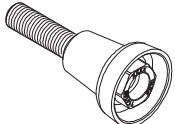

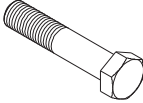
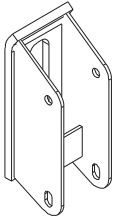

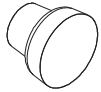


Fig. A7.01

With Mounting Head FB

Table 1
Anchoring with Mounting Head FB

Anchoring components		Suspension components			Mounting the Anchor Positioning Stud	Closure
Anchor Sleeve M24* Item no. 026230 	Spacer PP for Anchor Sleeve M24* Item no. 026240 	Wall Scaffold Hinge FB Item no. 026990 	Hex Bolt M24 x 70-10.9 Item no. 026430 	Standard Mounting Head FB Item no. 026632 	Anchor Positioning Stud M24 Item no. 026420 	Plug for Anchor Sleeve M24* Item no. 026250 
Threaded Anchor Plate DW 20* Item no. 030860 	Screw-On Cone-2 M24/DW 20 Item no. 114158 	Scaffold Mounting Ring 15 Item no. 029470 	Hex Bolt M24 x 120-10.9 Item no. 029560 	Standard Mounting Head FB Item no. 026632 	Anchor Positioning Stud M24 Item no. 026420 	KK Concreting Cone* M24-67/52 Item no. 031652 

*lost components



The contractor (user) responsible for the installation of the anchoring is also responsible for the correct assembly and intended use. He shall arrange for the delivery and correct installation of any required additional reinforcement.

A record of the verification of the existing concrete strength as well as the inspection of individual components, proper assembly and the anchoring depth must be kept. Proof must be provided that all load transfers in the building are distributed into the ground. With deviating conditions, a separate statical proof in accordance with the approval is required!

Installing the Anchor Sleeve M24

1. Nail Anchor Positioning Stud onto formwork.
2. Screw Anchor Sleeve M24 with Spacer PP to the Anchor Positioning Stud and secure in position with tie wire through the existing drilled holes to the reinforcement.

Removing the Anchor Sleeve M24

1. After striking has been completed, unscrew the Anchor Positioning Stud M 24 with 14 mm Allen Key.
2. Then fix Wall Scaffold Hinge FB to Anchor Sleeve using Hex Bolt M 24 x 70.
3. After application, close the remaining opening with plugs for the Anchor Sleeve M24.



Alternatively, the Wall Scaffold Hinge FB can be mounted with Hex Bolt M 24 x 70.

Installation of the Screw-On Cone-2 M24/DW 20

1. Nail Anchor Positioning Stud M 24 onto the formwork.
2. Screw Threaded Anchor Plate 20 as far as possible onto the Screw-On Cone, attach to the Anchor Positioning Stud and secure in position with tie wire through the existing drilled holes to the reinforcement.

Removal of the Screw-On Cone-2 M24/DW 20

1. After striking has been completed, unscrew the Anchor Positioning Stud M 24 with 14 mm Allen Key.
2. Fix the Scaffold Mounting Ring 15 to the Screw-On Cone using Hex. Bolt M24 x 120.
3. After application, close the remaining opening with KK Concreting Cone M24-67/52.

As an alternative to the Anchor Positioning Stud, the Anchor Positioning Plate with Advancing Screw M24 can be used on drilled formwork (Ø 25).

With Mounting Head FB



Only use the parts indicated by PERI for scaffold anchoring!
Do not load the anchoring system until the concrete has reached a strength of 10 N/mm²! Concrete quality: C20/C25 or higher! Maximum anchor loads: see Part B in the Tables!

Wall Scaffold Hinge

Compensate lateral dimensional tolerances of up to ± 25 mm by slightly turning the Wall Scaffold Hinge FB. (Fig. A8.04)

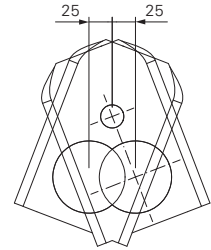


Fig. A8.04

Anchoring to the slab

(Fig. A8.01 + A8.02)

Each anchor point with Anchor Sleeve M24 or Screw-On Cone M24/DW 20 is to be secured with 2 bales $\varnothing 8$ BSt 500S, if suitable edge reinforcement has not already been provided.



If the concrete slab is not supported by a wall, it must be supported with sufficiently load-bearing slab props, e.g. PERI MULTIPROP. If necessary, a support extension is to be used. (Fig. A8.03)

Section

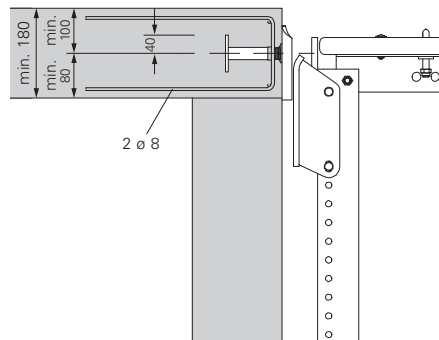


Fig. A8.01

Ground plan

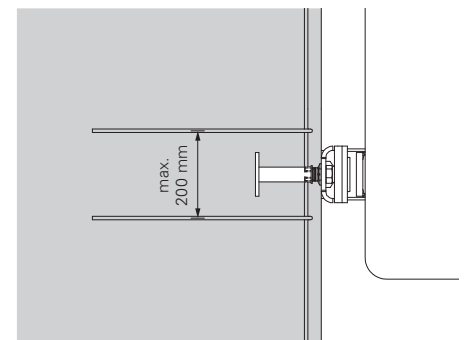


Fig. A8.02

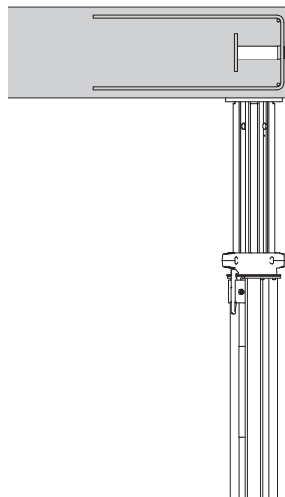


Fig. A8.03



Only use the parts indicated by PERI for the scaffold anchoring! Do not load the anchoring system until the concrete has reached a strength of 10 N/mm²! Concrete quality: C20/C25 or higher! Maximum anchor loads: see Part B in the Tables!

Anchoring in the wall

(Fig. A8.04 - A8.04a)

Minimum wall reinforcement:

$a_s = 2.57 \text{ cm}^2/\text{m}$.

Section

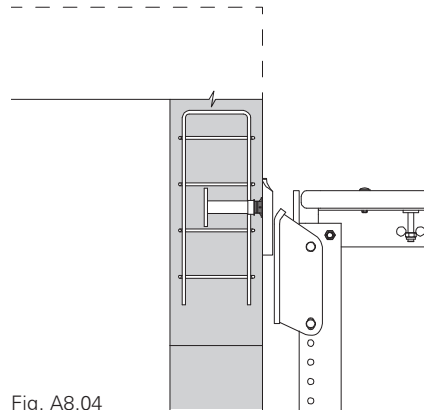


Fig. A8.04

Ground plan

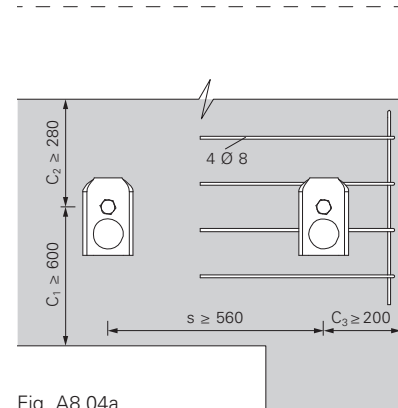


Fig. A8.04a

Possible tie systems

- Wall Scaffold Hinge FB with Anchor Sleeve M24
- Scaffold Mounting Ring M24 on Screw-On Cone M24/DW 20

Working scaffold and formwork scaffold supported on scaffold

- Wall Scaffold Hinge FB with Anchor Sleeve M24.
Edge distance $c_2 \geq 280 \text{ mm}$
Wall thickness $h \geq 180 \text{ mm}$
- With Scaffold Mounting Ring M24 on Screw-On Cone M24/DW 20.
Edge distance $c_2 \geq 350 \text{ mm}$
Wall thickness $h \geq 200 \text{ mm}$

Formwork propped on scaffold without tension anchor (Chart 1, Section I)

- With Scaffold Mounting Ring M24 on Screw-On Cone M24/DW 20.
Edge distance $c_2 \geq 350 \text{ mm}$
Wall thickness $h \geq 200 \text{ mm}$
- Additional rear suspended reinforcement is required with Wall Scaffold Hinge FB and Anchor Sleeve M24, which is determined and mounted by the contractor, Anchor loads, see Table 6. Without the rear suspended reinforcement, a minimum concrete strength of 15 N/mm² is required.
Edge distance $c_2 \geq 280 \text{ mm}$
Wall thickness $h \geq 180 \text{ mm}$

Formwork propped on scaffold and tension anchor (Chart 1, Section II)

- With Scaffold Mounting Ring M24 on Screw-On Cone M24/DW 20.
Edge distance $c_2 \geq 350 \text{ mm}$
Wall thickness $h \geq 200 \text{ mm}$
- Additional rear suspended reinforcement is required with Wall Scaffold Hinge FB and Anchor Sleeve M24, which is determined and mounted by the contractor, Anchor loads, see Table 7. Without the rear suspended reinforcement, a minimum concrete strength of 30 N/mm² is valid.
Edge distance $c_2 \geq 280 \text{ mm}$
Wall thickness $h \geq 180 \text{ mm}$

General

Edge distance $c_3 \geq 280 \text{ mm}$.

When using the Folding Corner Platform FEB:

Edge distance $c_3 \geq 200 \text{ mm}$.

Additional edging reinforcement is required if not already available!

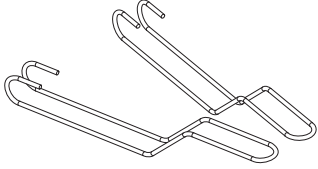
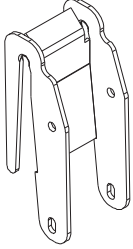
Minimum:

4 horizontal bales $\varnothing 8$, $e = 12 \text{ cm}$

2 vertical ties $\varnothing 8$

With Loop Mounting Head-2 FB

Table 2
Anchoring with the Loop Mounting Head-2 FB

	Anchoring components	Suspension components
Anchor Loop	Mounting Loop FB Item no. 026636 Always use in pairs 	Loop Mounting Head-2 FB Item no. 026645 



Anchoring with the Loop Mounting Head is not allowed for supporting the formwork!

Only use the parts indicated by PERI for scaffold anchoring! Do not load the anchoring system until the concrete has reached a strength of 10 N/mm²! Concrete quality: C20/C25 or higher! Maximum anchor loads: see Part B in the Tables!

When loaded, the Loop Mounting Head is systematically and permanently deformed. Any additional bending can cause the Loop Mounting Head to become brittle and is not allowed!



Take care not to damage parts of building, e.g. windows, with flying sparks when cutting the loops off.

Installation instructions

Position the Loop Mounting Heads in pairs and tie to the bottom layer of slab reinforcement with tie wire. Ensure that the concreted end of the Anchor Loop encompasses a reinforcement bar. (Fig. A8.05 + A8.06)

Section

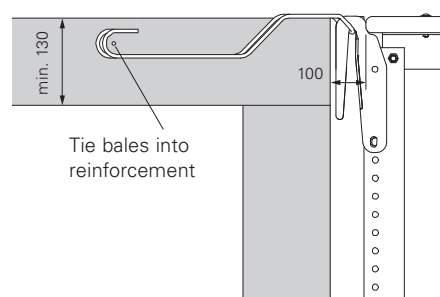


Fig. A8.05

Ground plan

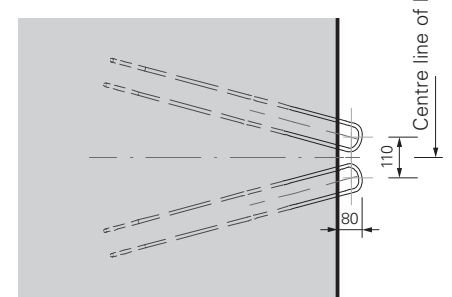


Fig. A8.06

Standard – For use up to Load Class 4



**Permissible load up to Load Class 4,
300 kg/m² (Table 3)!**

For use with:

- Folding Platform FB 180-3/300
- Intermediate Platform FBZ 240
- Folding Corner Platform
FEB 180-3/300

Suspension with:

- Mounting Head FB
- Loop Mounting Head-2 FB up to loadclass 3
(Fig. B1.01)



Limitations:

Loading according to load class 4:
max. height adjustment $\Delta h = 50$ cm.
Loading up to load class 3:
max. height adjustment $\Delta h = 70$ cm.
(Fig. B1.02)

When used with Support Extension
200, the application is limited!

Loading according to load class 3:
no height adjustment permitted.

Loading according to load class 2:
Max. height adjustment $\Delta h = 20$ cm.
(Fig. B1.03)

For load class 4 the application of the
Support Extension 200 is not permitted.

For use as a corner platform, see A4
Folding Corner Platform FEB 180/300.

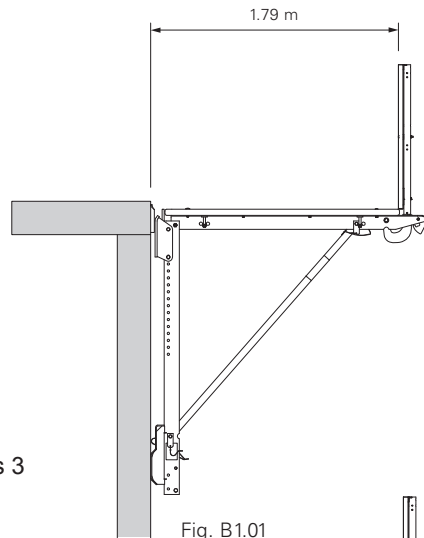


Fig. B1.01

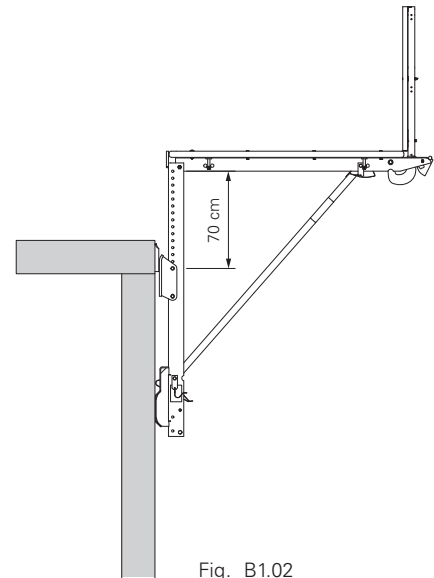


Fig. B1.02

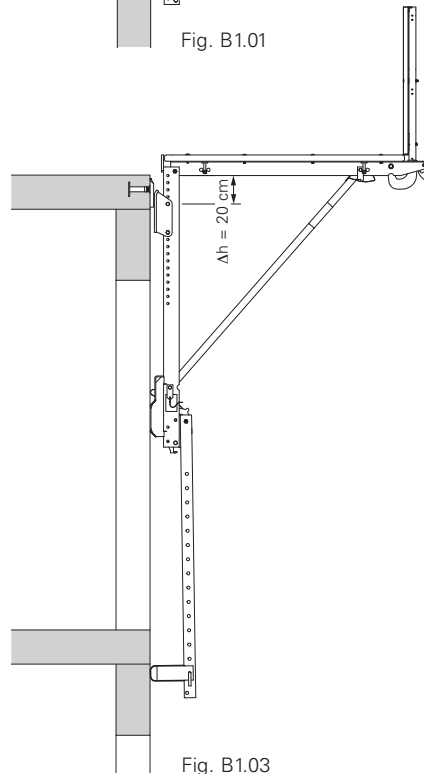


Fig. B1.03

Table 3
Maximum anchor loads

Load class	perm. live load	Maximum anchor loads	
		V - vertical	H - horizontal
2	150 kg/m ²	10 kN	8 kN
3	200 kg/m ²	11 kN	10 kN
4	300 kg/m ²	16 kN	14 kN

Special Application: Load Class 5



**Permissible load for Load Class 5,
450 kg/m² (Table 4)!**

**Using the Intermediate Platform FBZ
and Folding Corner Platform FEB is
not permissible!**

For use with:

- Folding Platform FB 180-3/300

Suspension with:

- Mounting Head FB
(Fig. B1.04)



Any remaining gaps \leq 30 cm between
the platforms are to be closed using
plywood.

Limitations:

No height adjustment permitted.
The application of the Support
Extension 200 is not permitted.

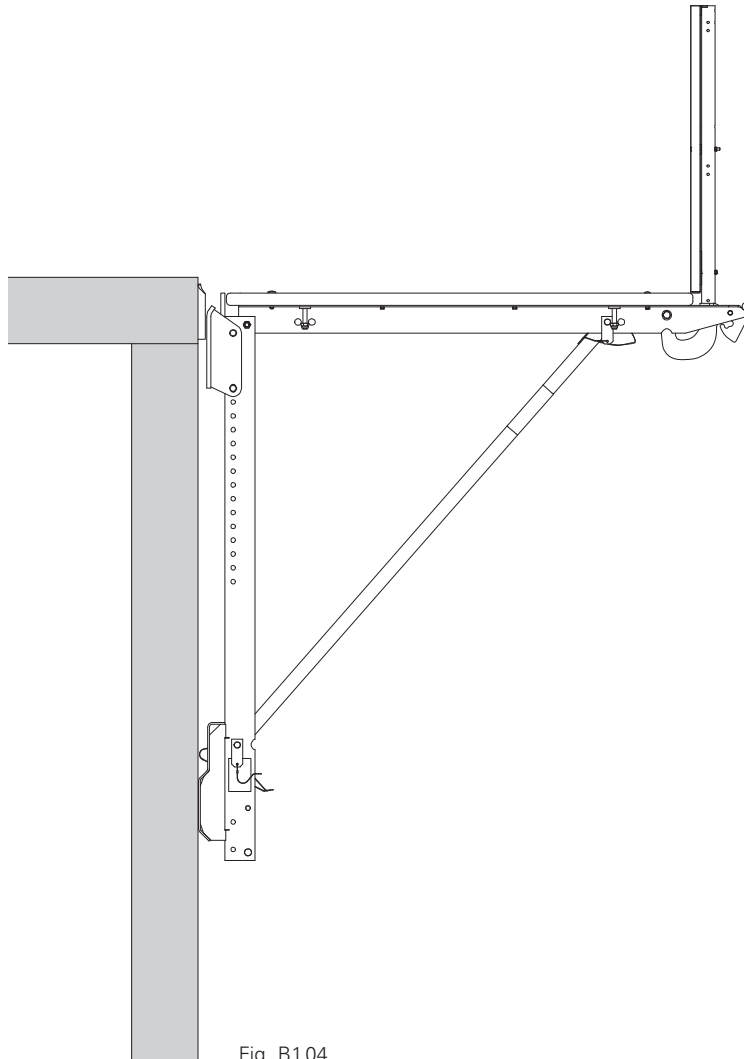


Fig. B1.04

Table 4
Maximum anchor loads

Load class	perm. live load	Maximum anchor loads	
		V - vertical	H - horizontal
5	450 kg/m ²	16 kN	14 kN

With supported formwork on scaffold



Permissible load up to Load Class 3, 200 kg/m² (Table 5)!

**Max. formwork height = 5.40 m!
Do not support formwork on the Folding Platform with push-pull props!**

For use with:

- Folding Platform FB 180-3/300
- Intermediate Platform FBZ 240
- Folding Corner Platform FEB 180-3/300

Suspension with:

- Mounting Head FB



Reinforcement work is done from the outside. Installation of the reinforcement can be carried out from an erected reinforcement scaffold (see separate product information on request).

Limitations:

For formwork height up to 2.70 m: max. height adjustment $\Delta h = 70$ cm. For formwork height 2.70 m up to 5.40 m: No height adjustment permitted.

The application of the Support Extension 200 is not permitted.

When using the Support Extension 300 with Compression Strut for formwork height up to 5.40 m max. height adjustment $\Delta h = 70$ cm.

For use as a corner platform, see A4 Folding Corner Platform FEB 180/300.

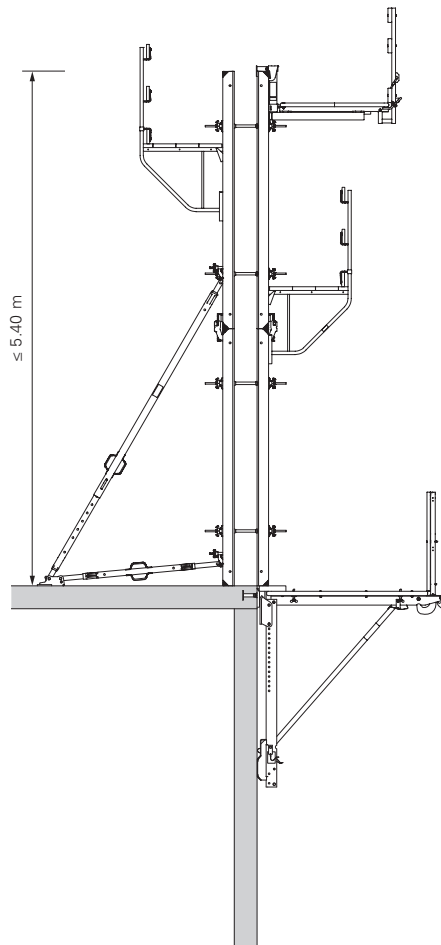


Fig. B2.01

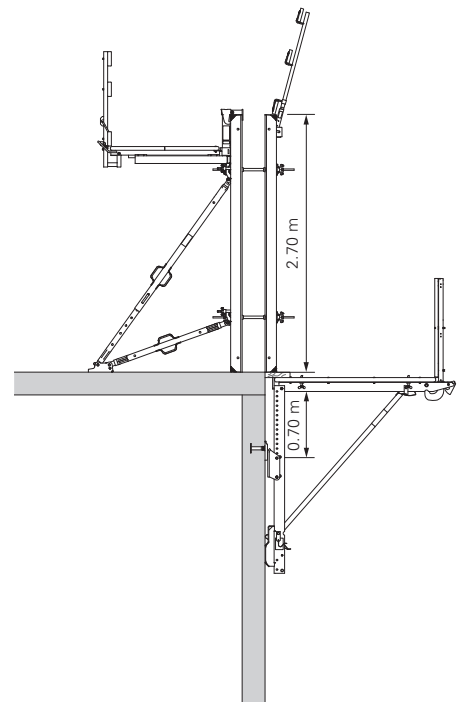


Fig. B2.02

**Table 5
Maximum anchor loads**

Formwork height	perm. live load	Maximum anchor loads	
		V - vertical	H - horizontal
5.40 m	200 kg/m ²	25 kN	12 kN
2.70 m	200 kg/m ²	21 kN	8 kN

With formwork propped to the scaffold without tension anchor



Permissible load up to Load Class 2, 150 kg/m² (Table 6)!

Max. formwork height: see B2 Chart 1, Section 1.

As a temporary safety precaution against exceeding the allowable wind speed, support the formwork – with or without internal formwork – on the structure or remove it!

(See „Temporary Support on the Structure.“)

For use with:

- Folding Platform FB 180-3/300
- Intermediate Platform FBZ 240
- Folding Corner Platform FEB 180-3/300

Suspension with:

- Mounting Head FB



Reinforcement work from the inside.

Limitations:

No height adjustment permitted
The permissible wind force can be increased if a tension anchor (Section II) is mounted.

Assembly of push-pull props on the Folding Platform

Version 1: Base Plate for RS 210-1400

1. Bolt Base Plate for RS 210-1400 (24a) in the rear Multi-Purpose Connector (10) with Push-Pull Prop Bolts FB (23).
2. Secure Push-Pull Prop RS and Kicker RS with bolt and cotter pin. (Fig. B2.03a)

Version 2: Base Plate for RSS

1. Bolt Base Plate for RSS (24b) in the rear Multi-Purpose Connector (10) with Push-Pull Prop Bolts FB (23).
2. Secure Push-Pull Prop RSS and Kicker AV with bolt and cotter pin. (Fig. B2.03b)

Formwork adjustment:

Generally, vertically align the formwork panels when being erected. Subsequent alignment of the formwork requires element connectors to be released or the use of tension anchoring in order to prevent any uplift of the platforms. (Fig. B2.03)

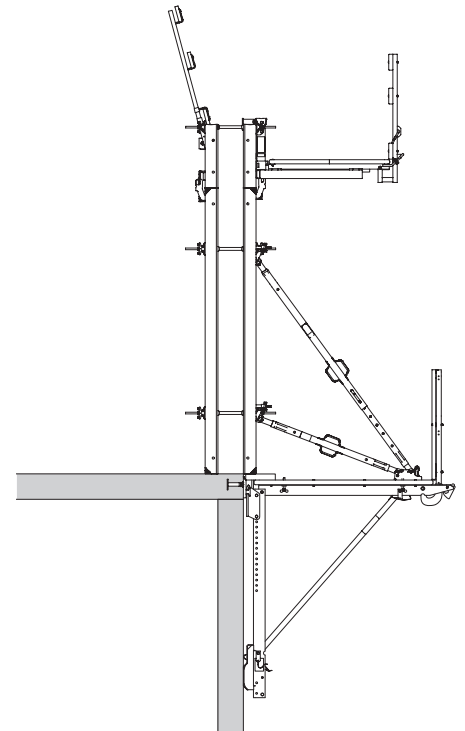


Fig. B2.03

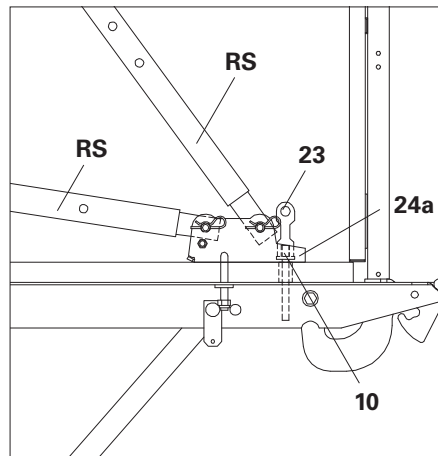


Fig. B2.03a

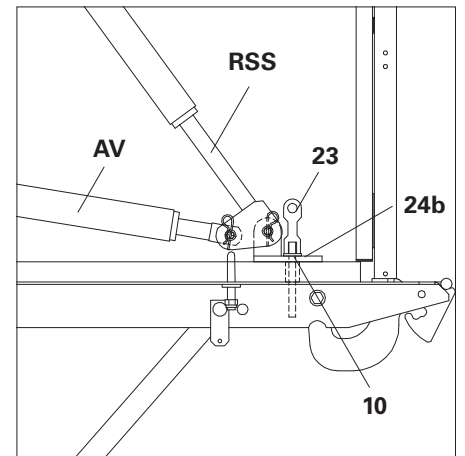


Fig. B2.03b

Table 6

Maximum anchor loads

Formwork height Chart 1	perm.live load	Maximum anchor loads	
		V - vertical	H - horizontal
Section I	150 kg/m ²	23 kN	10 kN

With supported formwork and tension anchor



Permissible load up to Load Class 2, 150 kg/m² (Table 7)!

Max. formwork height: see B2 Chart 1, Section II.

As a temporary safety precaution against exceeding the allowable wind speed, support the formwork – with or without internal formwork – on the structure or remove it!

(See „Temporary Support on the Structure.“)

For use with:

- Folding Platform FB 180-3/300
- Intermediate Platform FBZ 240
- Folding Corner Platform FEB 180-3/300

Suspension with:

- Mounting Head FB
- Tension Anchor with Tension Belt



Reinforcement work from the inside. It is possible that a finishing platform is required for fixing the tension belt in position.

Limitations:

No height adjustment permitted.

Application of the Support Extension 200 is not permitted.

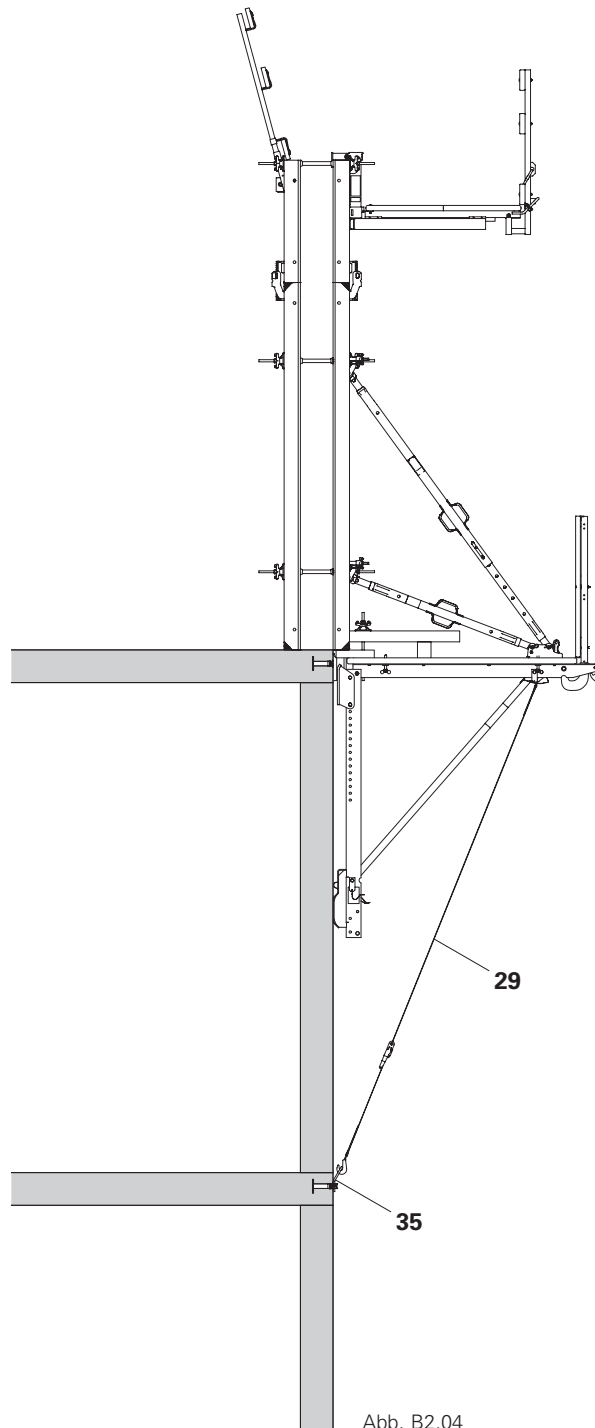


Abb. B2.04

Table 7
Maximum anchor loads

Formwork height Chart 1	perm. live load	Maximum anchor loads	
		V - vertical	H - horizontal
Section II	150 kg/m ²	24 kN	29 kN

Assembly of push-pull props on the folding platform

Secure formwork against lifting

Perm. width of influence = 5.0 m.

1. Place timber (33) underneath and tension the formwork element with Waler 85 (30), Tie Rod 15 (31) and Wingnut Pivot Plate DW 15 (32) against the Multi-Purpose Connector (10). (Fig. B2.04a)

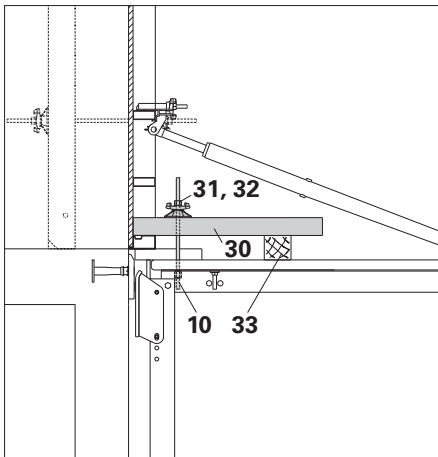


Fig. B2.04a

Version 1: Base Plate for RS 210-1400

1. Bolt Base Plate for RSS 210-1400 (24a) in the rear Multi-Purpose Connector (10) with Push-Pull Prop Bolts FB (23).
2. Secure Push-Pull Prop RS and Kicker RS with bolts and cotter pins. (Fig. B2.04b)

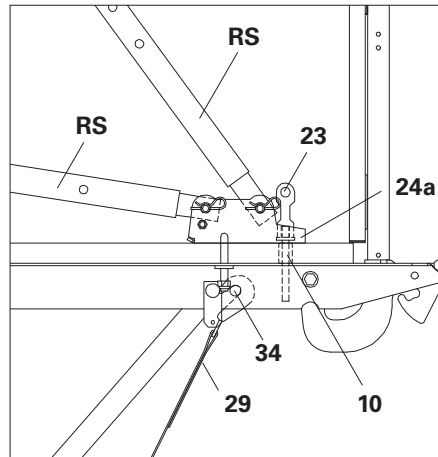


Fig. B2.04b

Version 2: Base Plate for RSS

1. Bolt Base Plate for RSS (24b) in the rear Multi-Purpose Connector (10) with Push-Pull Prop Bolts FB (23).
2. Secure Push-Pull Prop RSS and Kicker AV with bolts and cotter pins. (Fig. B2.04c)

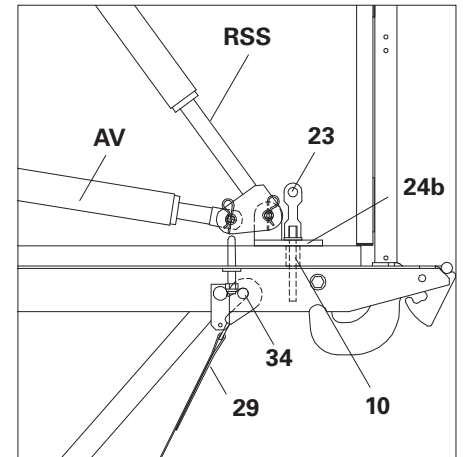


Fig. B2.04c

Top Tension Belt connection

1. Attach mounting hooks of the Tension Belt to an additional bolt $\varnothing 16 \times 150$ with Cotter Pin 4/1 (34) in the hole behind the strut connection. (Fig. B2.04b + B2.04c)

Bottom Tension Belt connection

1. Fix Tension Belt Connector Wall (35) with Hex Bolt M24 x 70 to the anchoring of the slab below.
2. Hook the Tension Belt (29) into the belt connector and tension. (Fig. B2.04)

Temporary support on the structure



Temporary safety precaution for supported formwork without or with tension anchoring for wind speeds which exceed the permissible limit. See B2, Chart 1, Section III. Max. formwork height = 5.40 m.

For use with:

- Folding Platform FB 180-3/300
- Intermediate Platform FBZ 240
- Folding Corner Platform FEB 180-3/300

Suspension with:

- Mounting Head FB

Support for internal formwork not installed, e.g. for reinforcement work. (Fig. B2.05)

Support for installed internal formwork with mounted formwork. (Fig. B2.06)



- The maximum anchor loads are shown in Table 5.
- No height adjustment is permitted.
- In the event of a storm warning, platforms without loads and loose covering are to be secured against lifting in order to ensure the stability.

Support safety measures on the structure

1. Tension Connector Plate AV (28) with Tie Rod B15 (31), Hex. Nut DW 15 SW 30/50 (25) and Wingnut Pivot Plate DW 15 (32) on the formwork. (Fig. B2.05a)
2. Fix Base Plate RS (24) onto the concrete slab, e.g. with Anchor Bolt 14/20 x 130 or similar.
3. Bolt Push-Pull Prop to the Connector Plate AV and Base Plate RS. (Fig. B2.05)

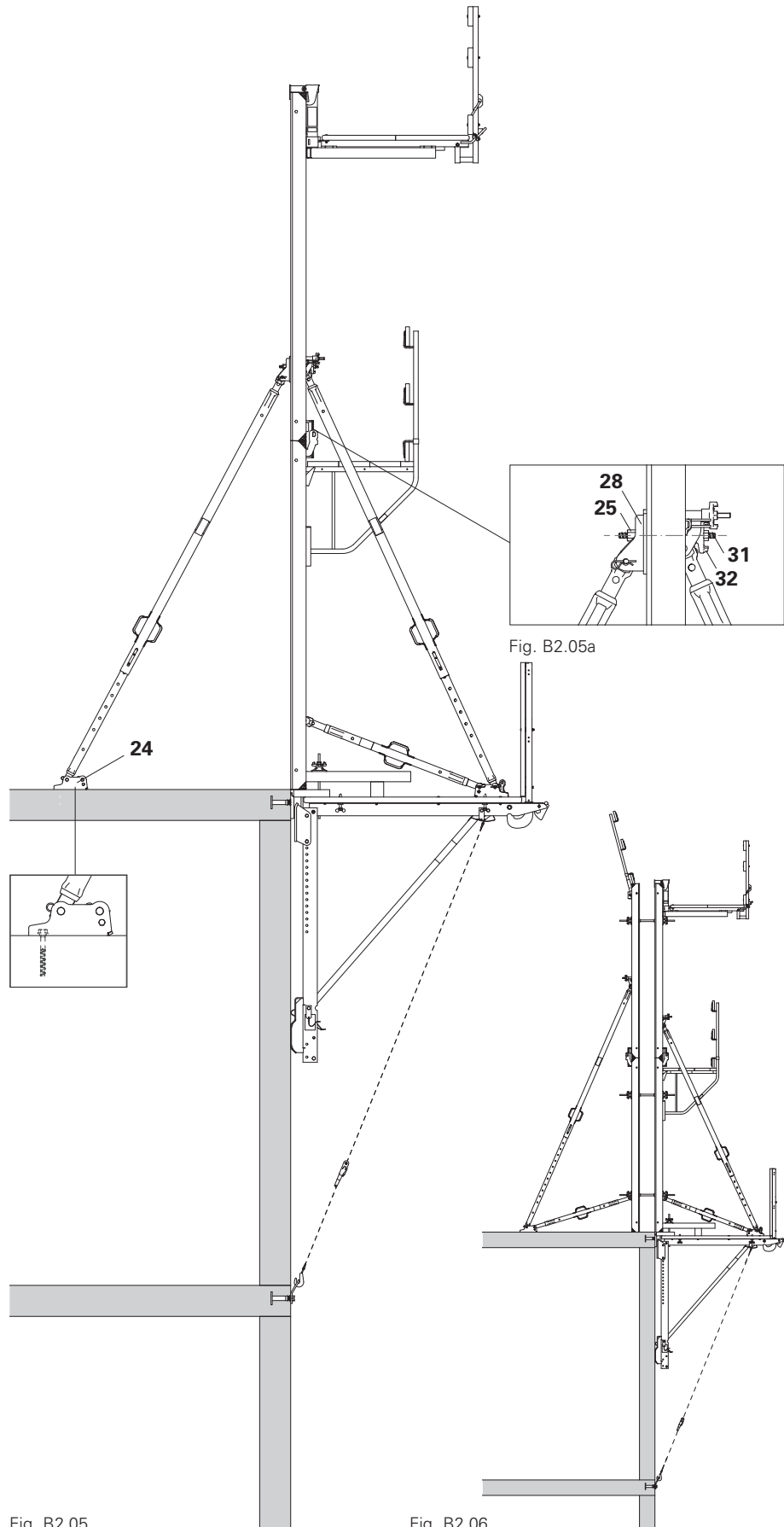
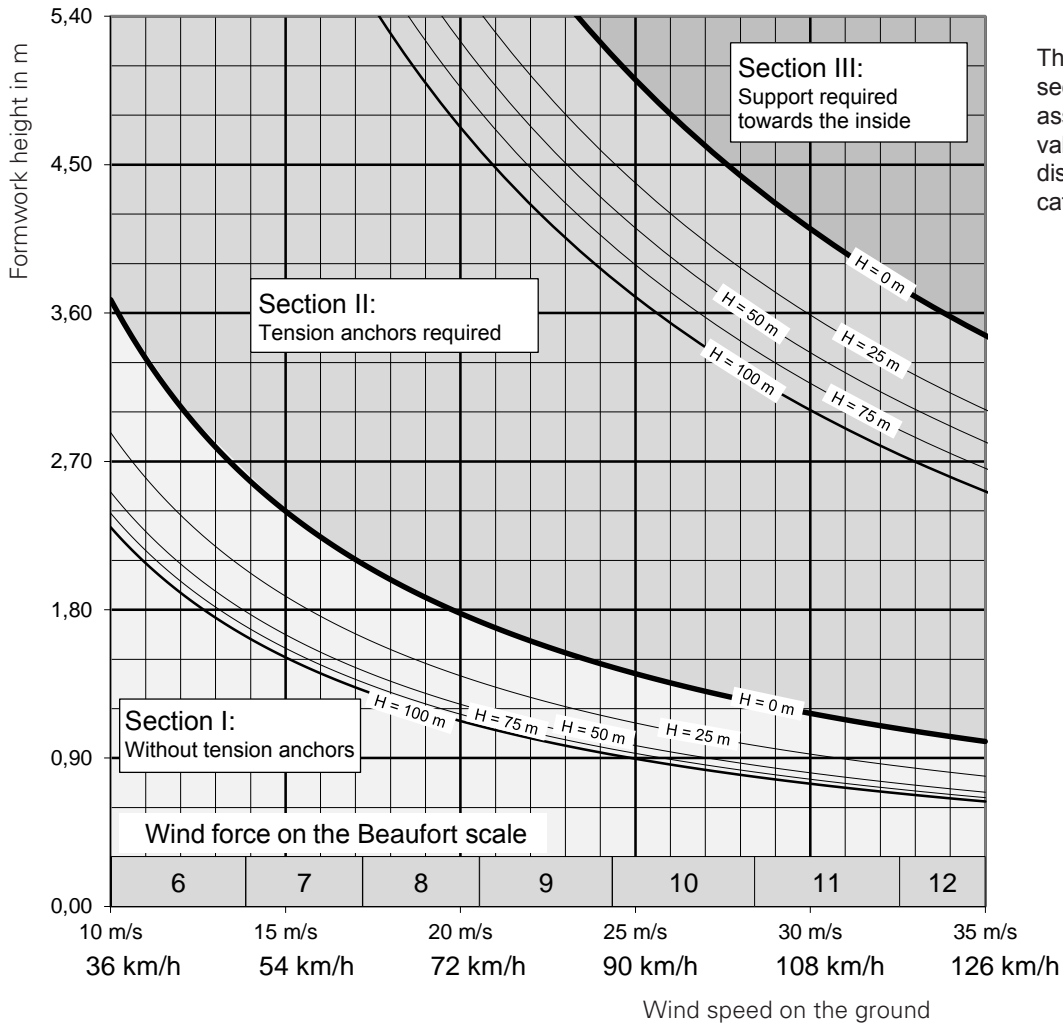


Fig. B2.05

Fig. B2.06

Chart 1



The boundary lines between the sections are determined assuming a wind compression value $c_p = 1,6$ and a wind velocity distribution according to terrain category III and wind load zone 2.

Note:

In general, storm warnings are issued for wind speeds of 60 km/h = 16.7 m/s or more. This corresponds to a wind force of 8 on the Beaufort scale.

Conversion factor for the wind speed:

1 m/s = 3.6 km/h.

In general, we recommend that prior to any work stoppages (e.g. on weekends), the formwork should be supported towards the inside on the structure as a precautionary measure. Especially if no tension anchoring is being used.

Example

With supported formwork and tension anchor:

- formwork height: 4.50 m
- utilisation height: 30 m above ground level

During working operations:

Expected wind speed according to the official weather forecast during work: actual $v_1 = 50 \text{ km/h} = 13.8 \text{ m/s}$. This corresponds to wind force 7 on the Beaufort scale.

Permissible wind speed according to Chart 1:

perm. $v = 24 \text{ m/s} = 86.4 \text{ km/h}$. This corresponds to wind force 9 on the Beaufort scale.

actual $v_1 < \text{perm. } v$

The use as formwork scaffold with supported formwork is possible with tension anchors.

Storm conditions:

Storm warning issued overnight with max. wind speeds of $v_2 = 80 \text{ km/h} = 22.2 \text{ m/s}$.

This corresponds to wind force 9 on the Beaufort scale.

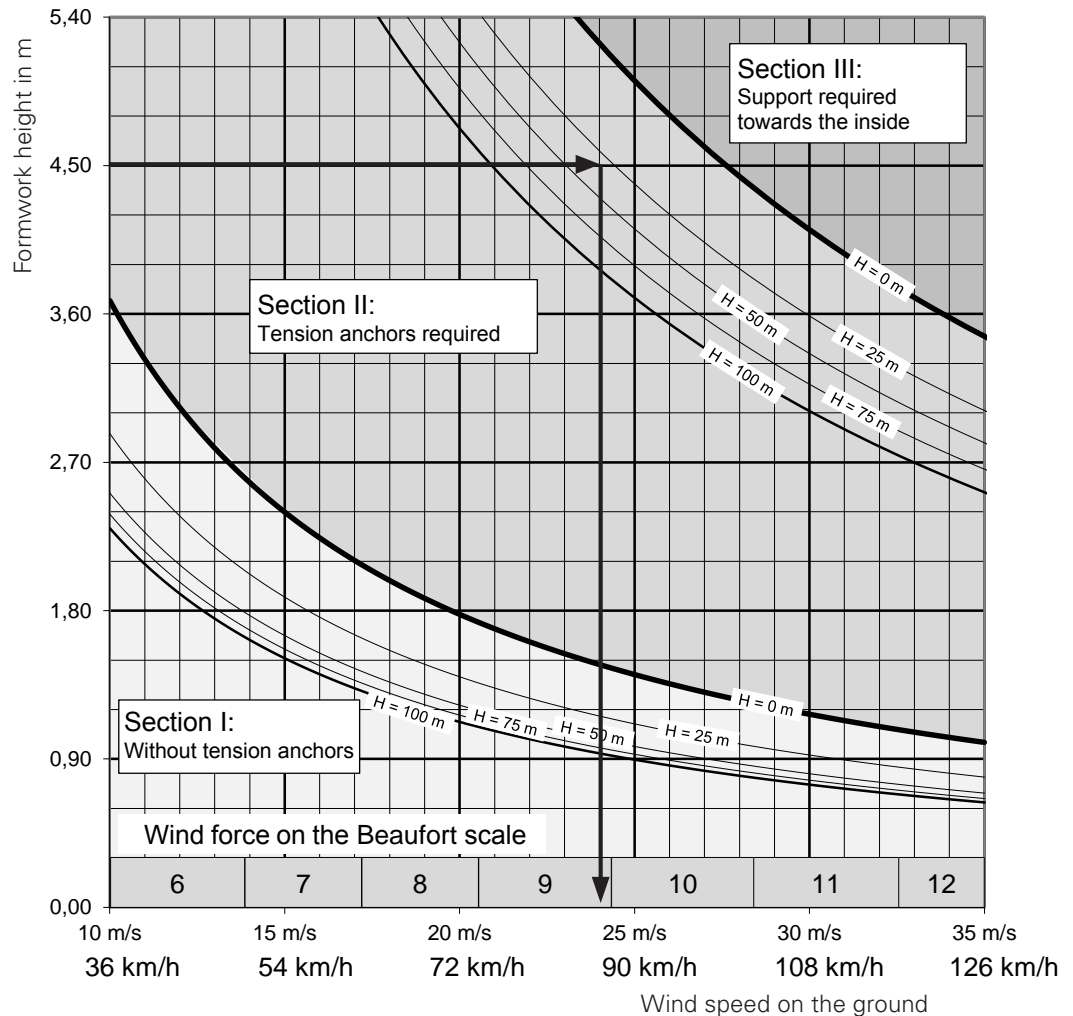
max. $v_2 < \text{perm. } v$

The formwork does not have to be supported from the inside after the shift has been finished.

Note:

The reading has been interpolated between the lines for $H = 24$ and $H = 50 \text{ m}$.

Chart 1



Overview of FB 180-3

Table 8

Application	Load Class perm. load	Anchoring with	platforms used	max. anchor loads in kN			Support extension	Height adjustment	Formwork height
				V	H	R			
Use as work scaffold									
Standard 1	2 150 kg/m ²	Mounting Head / Loop Mounting Head	FB FBZ, FEB	10	8	12	300 200*	$\Delta h \leq 70$ cm * $\Delta h \leq 20$ cm	–
Standard 2	3 200 kg/m ²	Mounting Head / Loop Mounting Head	FB FBZ, FEB	11	10	15	300 200**	$\Delta h \leq 70$ cm ** $\Delta h = 0$	–
Standard 3	4 300 kg/m ²	Mounting Head	FB FBZ, FEB	16	14	20	300	$\Delta h \leq 50$ cm	–
Special cases	5 450 kg/m ²	Mounting Head	FB	16	14	20	300	$\Delta h = 0$	–
Use as formwork scaffold									
Formwork erected on scaffold	3 200 kg/m ²	Mounting Head	FB FBZ, FEB	21	8	22	300	$\Delta h \leq 70$ cm	2,70 m
Formwork erected on scaffold	3 200 kg/m ²	Mounting Head	FB FBZ, FEB	25	12	27	300***	$\Delta h = 0$ *** $\Delta h \leq 70$ cm	5,40 m
Formwork propped on scaffold	2 150 kg/m ²	Mounting Head	FB FBZ, FEB	23	10	25	300	$\Delta h = 0$	Chart, Section II
Formwork propped on scaffold	2 150 kg/m ²	Mounting Head	FB FBZ, FEB	24	29	30	300	$\Delta h = 0$	Chart, Section II

Height adjustment:

- If using Folding Corner Platform FEB:
 $\Delta h = 5, 10, 15, 65, 70$ cm
- If using as work scaffold with Support Extension 200:
load class 2: $\Delta h \leq 20$ cm
load class 3: No height adjustment permitted ($\Delta h = 0$).
- If using as formwork scaffold the application of the Support Extension 200 is not permitted.

The maximum anchor loads V and H can arise from different load cases:

$$\rightarrow \sqrt{V^2 + H^2} \neq R$$

Anchoring in the wall

- **Work scaffold:**
Anchoring with Wall Scaffold Hinge FB on Anchor Sleeve M24 or Screw-On Cone M24/DW 20.
- **Formwork scaffold with formwork erected on scaffold:**
Anchoring with Wall Scaffold Hinge FB on Anchor Sleeve M24 or Screw-On Cone M24/DW 20.
- **Formwork scaffold with supported formwork:**
Anchoring with Scaffold Mounting Ring M24 on Screw-On Cone M24/DW 20.
Anchoring with Wall Scaffold Hinge FB on Anchor Sleeve M24 or Screw-on Cone M24/DW 20 with increased requirements on the anchorage, see Section A8.

Anchoring to the slab

- **Work scaffold:**
Anchoring with Wall Scaffold Hinge FB on Anchor Sleeve M24 or Screw-On Cone M24/DW 20.
Anchoring with pair of Loop Mounting Heads.
- **Formwork scaffold:**
Anchoring with Wall Scaffold Hinge FB on Anchor Sleeve M24 or Screw-On Cone M24/DW 20.

With the formwork on top, no wind loads from the formwork (e.g. via the push-pull props) are allowed to be transferred into the folding platform.

If the permissible wind loads given in the chart are exceeded with supported formwork, the additional safety precautions determined beforehand are to be implemented. (Supporting the formwork with push-pull props on the building's slab or taking down the formwork)

Use as roof safety scaffold

Permissible vertical spacing to the building edge.

(Fig. B3.01 + Table 9)



Roof safety scaffold may only be used if guardrails cannot be installed due to technical reasons or are unavailable. In these cases, explicit assembly instructions on the basis of a risk assessment are required.



Note

With floor heights of up to 3.70 m, a maximum fall height of 3.00 m must be ensured if the platforms are installed $\Delta h = 70$ cm higher.

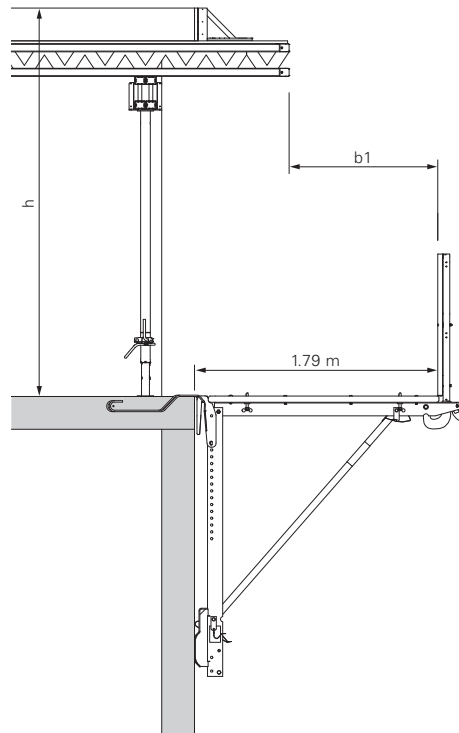


Fig. B3.01

Table 9

Perm. vertical spacing [m] for the open building edge according to DIN 4420

Fall height h	≤ 2.00	≤ 3.00
Min. spacing b1	≥ 0.90	≥ 1.30

Use as protection roof



Gaps in the decking and side protection are to be closed!

Minimum height of the rear panel = 60 cm!

Any gaps in the following areas are to be closed using materials supplied by the contractor.

- on the folding platform.
- between the structure and folding platform.
- between the main platforms.

(Fig. B3.02)

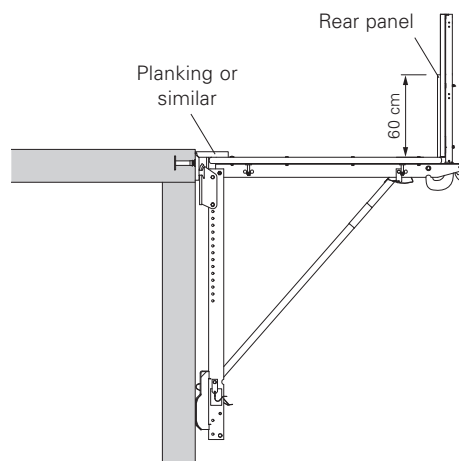


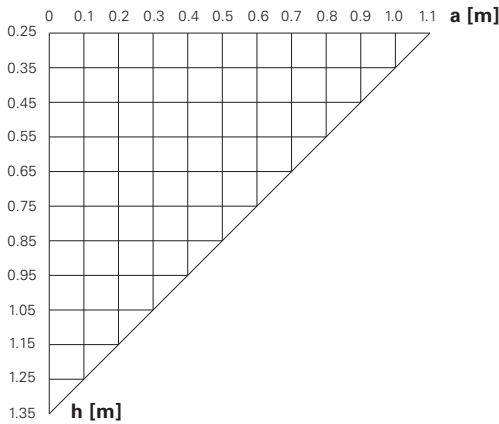
Fig. B3.02

Without guardrail extension

Utilisation height $H \leq 100$ m above ground level (except in the German Bight). (Fig. B4.01)

Chart 2

Determining the max. spacing h to the eaves



a = width of eaves

h = vertical spacing from eaves to decking

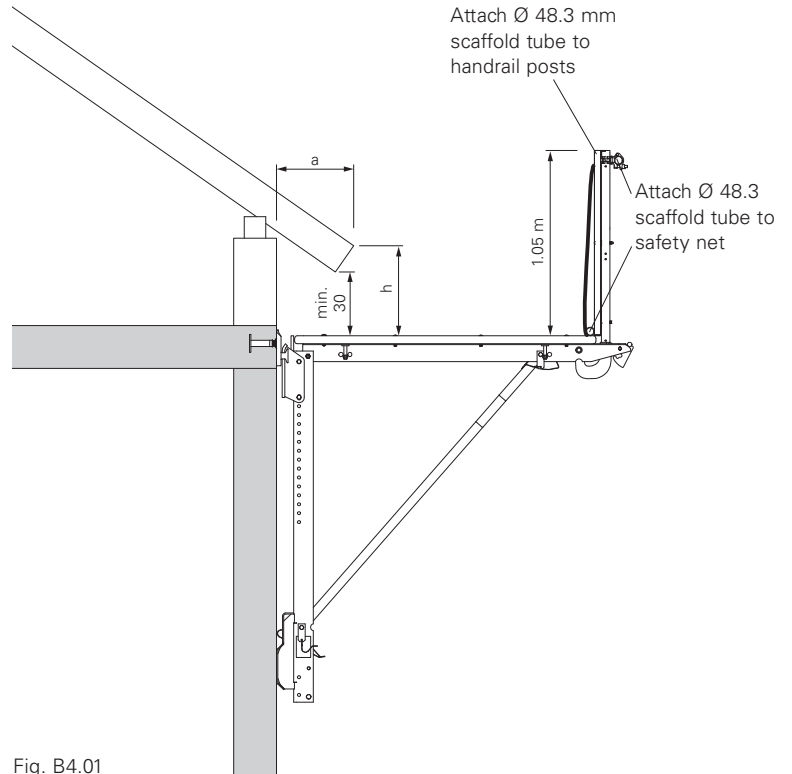


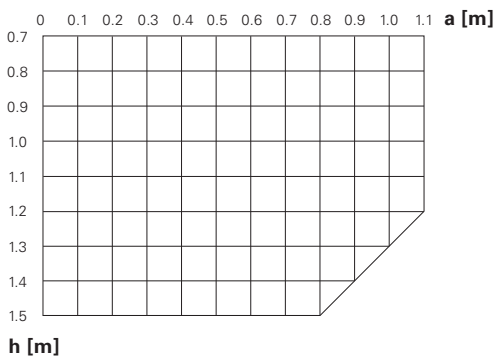
Fig. B4.01

With guardrail extension

Utilisation height $H \leq 20$ m above ground level (Fig. B4.02).

Chart 3

Determining the max. spacing h to the eaves.



a = width of eaves

h = vertical spacing from eaves to decking

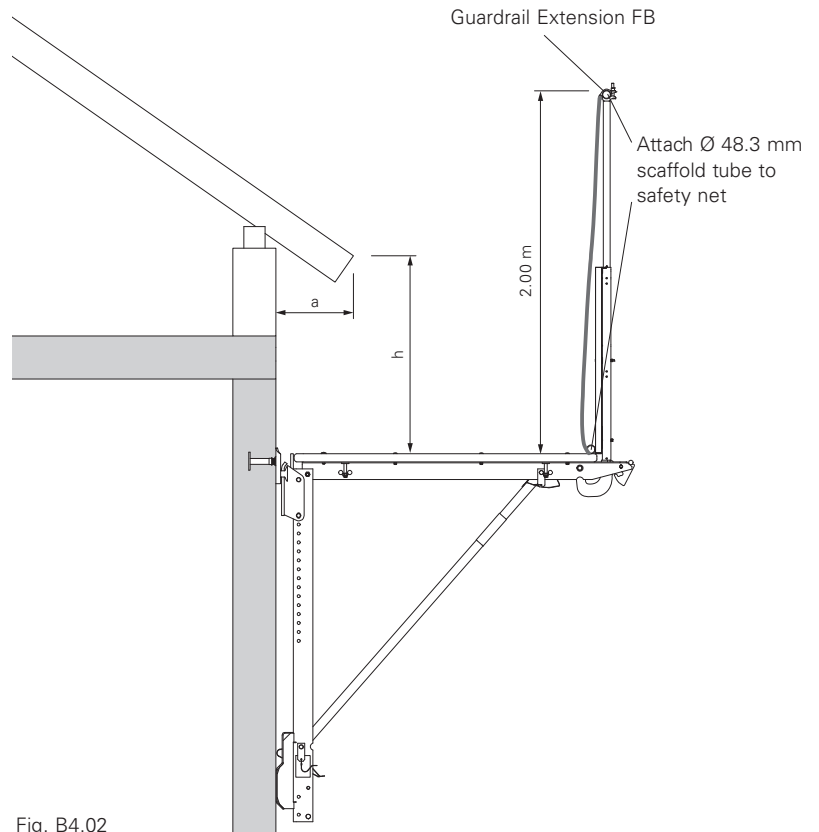


Fig. B4.02

With Finishing Platform FBN-2

For use with:

- removal of anchors.
 - mounting and removal of Tension Belt.
 - post-treatment of the concrete surface.
 - safety handrail system for storey below if no parapet is provided.
- (Fig. B5.01)



Secure ladder access points with safety nets.



Restrictions

When Intermediate Platforms FBZ are used, the maximum permissible gap between the platforms is limited to 1.0 m (bracket spacing 1.50 m) to ensure that intermediate elements (36) supplied by the contractor can be attached to the adjacent platforms. Guardrails are to be supplemented through scaffold tubes (27) or handrail boards supplied by the contractor.

(Fig. B5.02)

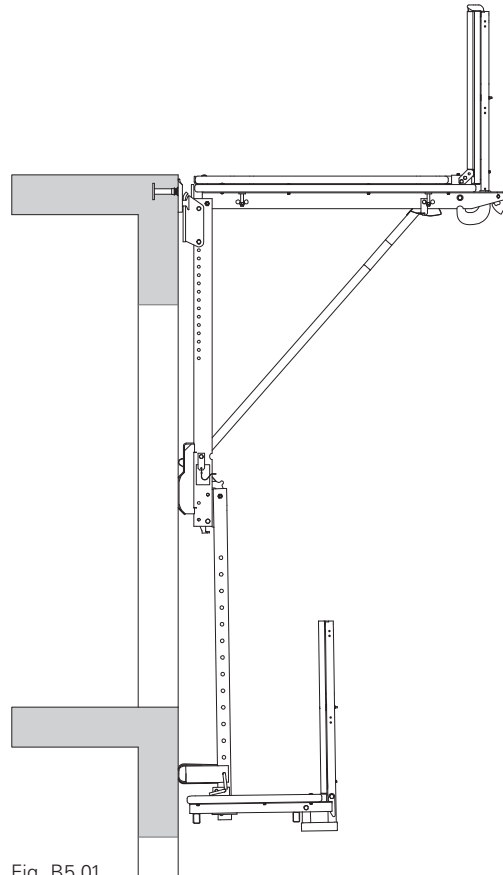


Fig. B5.01

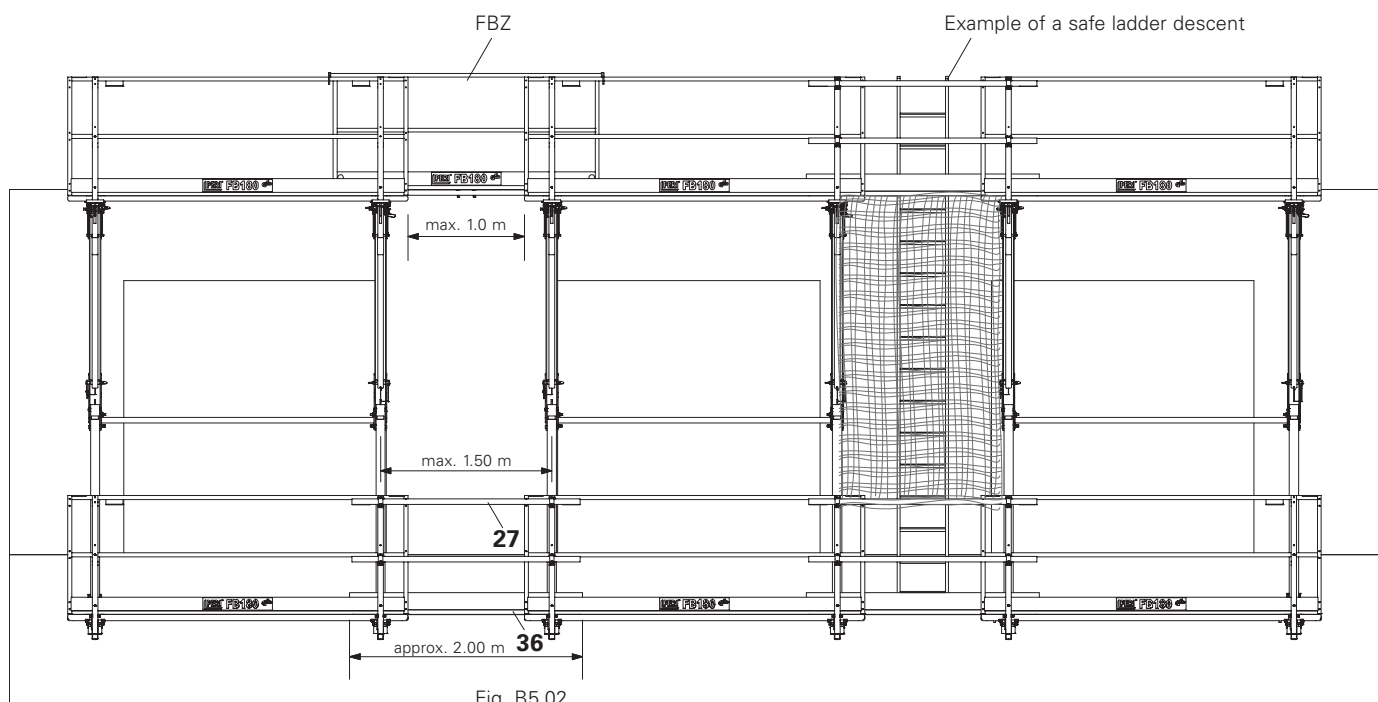


Fig. B5.02

With horizontal girders

If no support extension is used for bridging, openings with a limited width can be bridged with horizontal girders.

Steel Waler SRU U120 (37)

Fixing with Hex. Bolt M12 x 240, Washer A12, Counterplate DW 15, 120 x 120 x 15 and Nut M12 in a drilled hole \varnothing 13 mm to the vertical strut of the bracket.

(Fig. B5.03 + B5.03a)

Timber 8 x 12 cm (33)

Fixing with TSS-Torx 8 x 58 in drilled hole \varnothing 13 mm to the vertical strut of the bracket. With two timbers, both are connected by means of wood screws.

(Fig. B5.03 + B5.03b)

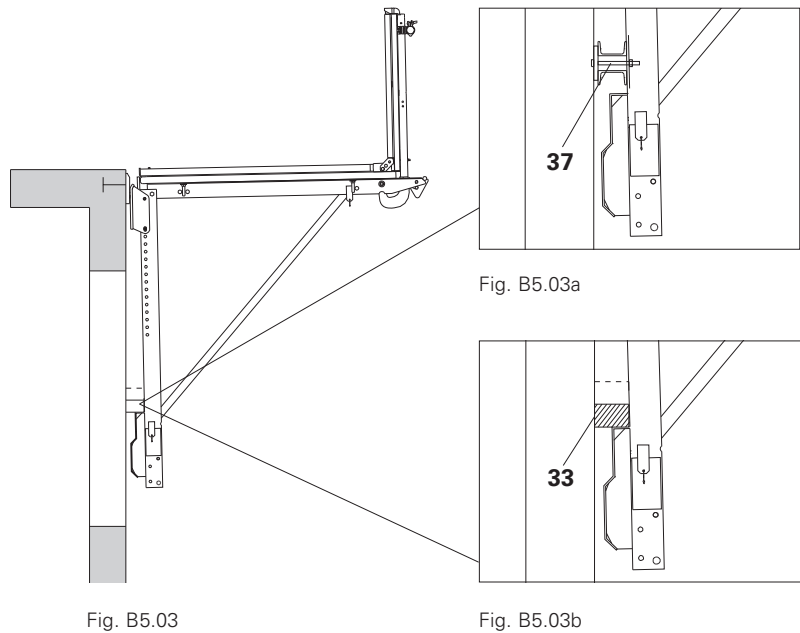


Fig. B5.03

Fig. B5.03b

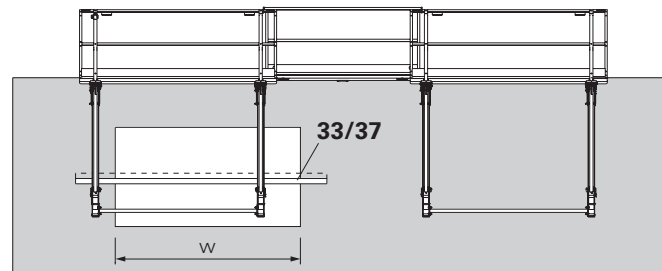


Fig. B5.04

Table 9

Permissible opening width w for use as work scaffold

Girder used	Load Class 2 150 kg/m ²	Load Class 3 200 kg/m ²	Load Class 4 300 kg/m ²	Load Class 5 450 kg/m ²
Timber 8 x 12	1.61 m*	1.29 m	–	–
2 x Timber 8 x 12	1.89 m	1.51 m	1.84 m*	–
Steel Waler SRU	6.31 m	5.69 m	4.97 m	3.05 m

* Height adjustment is not permissible: $\Delta h = 0!$

Table 10

Permissible opening width w for use as formwork scaffold

Girder used	Formwork 2.70 m supported on scaffold Load Class 3	Formwork 5.40 m supported on scaffold Load Class 3	Chart, Section I + II propped on scaffold Load Class 2
Timber 8 x 12	1.02 m	–	–
2 x Timber 8 x 12	2.03 m	1.18 m	1.03 m
Steel Waler SRU	6.54 m	5.13 m	4.87 m

With Intermediate Platform FBZ

Intermediate Platform FBZ between
2 Folding Platforms FB 180-3/300.

(Fig. B6.01)



Permissible load up to Load Class 4,
300 kg/m².

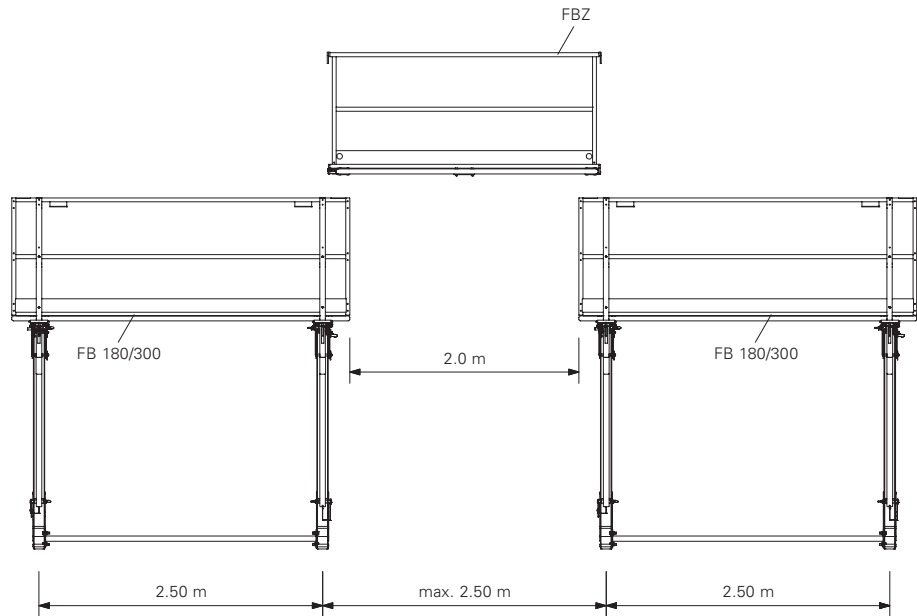


Fig. B6.01

Individual bracket with Intermediate Platform FBZ and End Platforms (FBZ + FB 180).

(Fig. B6.02)



Permissible load up to Load Class 4,
300 kg/m².

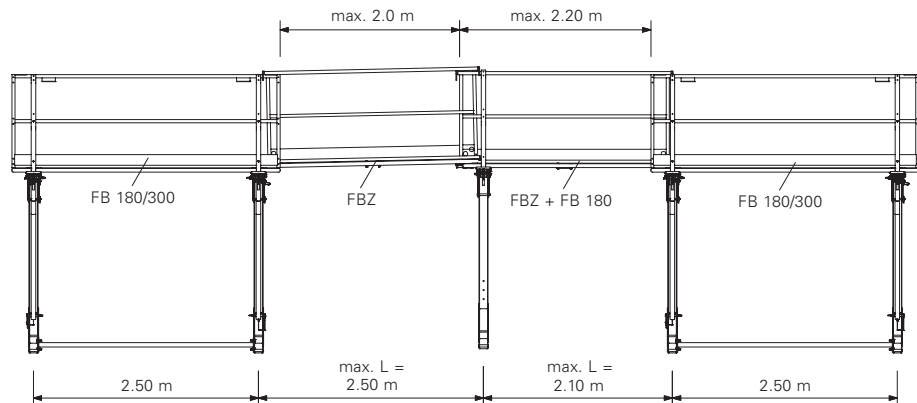


Fig. B6.02

Intermediate Platform FBZ as End Platform with Single Bracket FB 180 at end of scaffold.

(Fig. B6.03)



Permissible load up to Load Class 4,
300 kg/m².

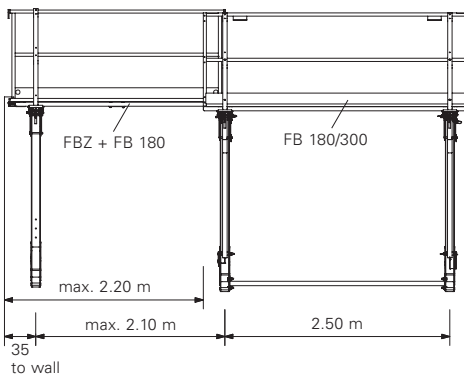


Fig. B6.03



The use of the Finishing Platform FBN is not possible on the single bracket.



The use of the Finishing Platform FBN is not possible on the single bracket.

With individual scaffold boards

Work scaffolds

The boards used for work scaffolding depend on the load class and span L. (Table 11)

Guardrails

Scaffold tubes $\varnothing 48.3 \times 3.2$ mm, L = 3.0 m attached with Standard Coupling NK 48/48 or boards 3 x 15 cm, toe board 3 x 15 cm. (Fig. B6.04)

Safety scaffold

The type and layout selected depends on the fall height and span in accordance with valid safety regulations.

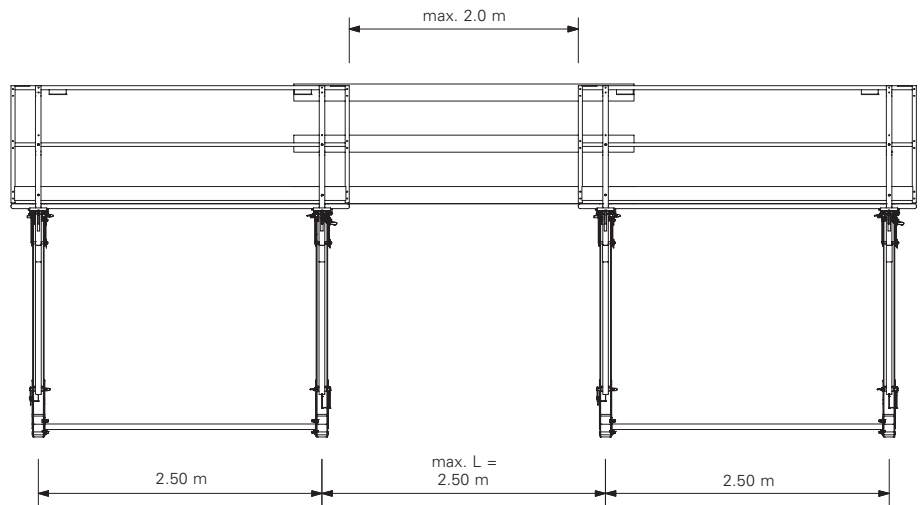


Fig. B6.04

Table 11
Minimum dimensions of scaffold hand-rail boards/planking for work scaffolds.

Load Class	Board or plank width [cm]	Thickness of board or plank [cm]				
		3.0	3.5	4.0	4.5	5.0
		Permissible span L [m]				
1, 2, 3	20	1.25	1.50	1.75	2.25	2.50
	24, 28	1.25	1.75	2.25	2.50	2.50
4	20	1.25	1.5	1.75	2.25	2.50
	24, 28	1.25	1.75	2.00	2.25	2.50

Layout planning



Firstly, the edge areas (internal and external corners, restricted wall returns) are determined. Main and Intermediate Platforms are used in the intermediate sections.
(Fig. B7.01 + B7.02)

Use intermediate platforms only where main platforms can be safely accessed during erection and dismantling.
Observe valid safety regulations!

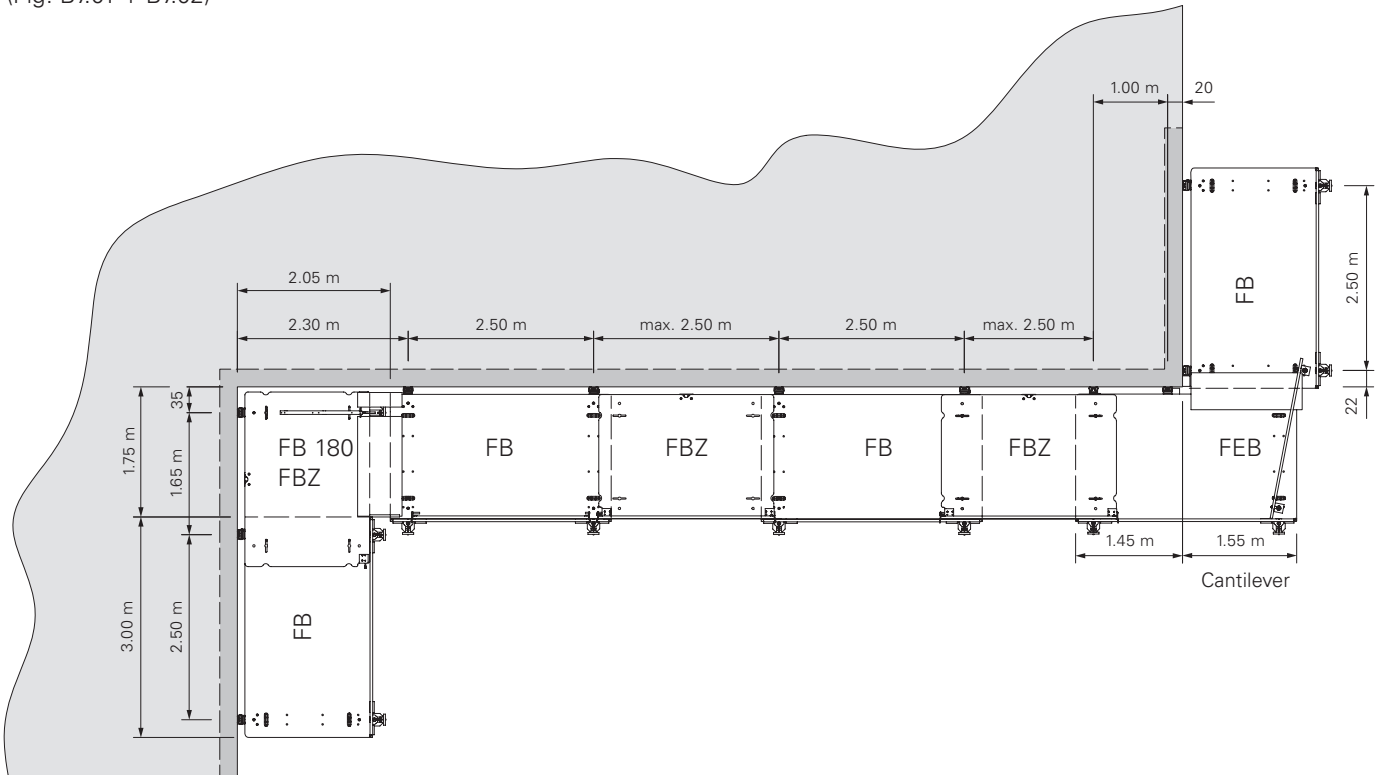


Fig. B7.01

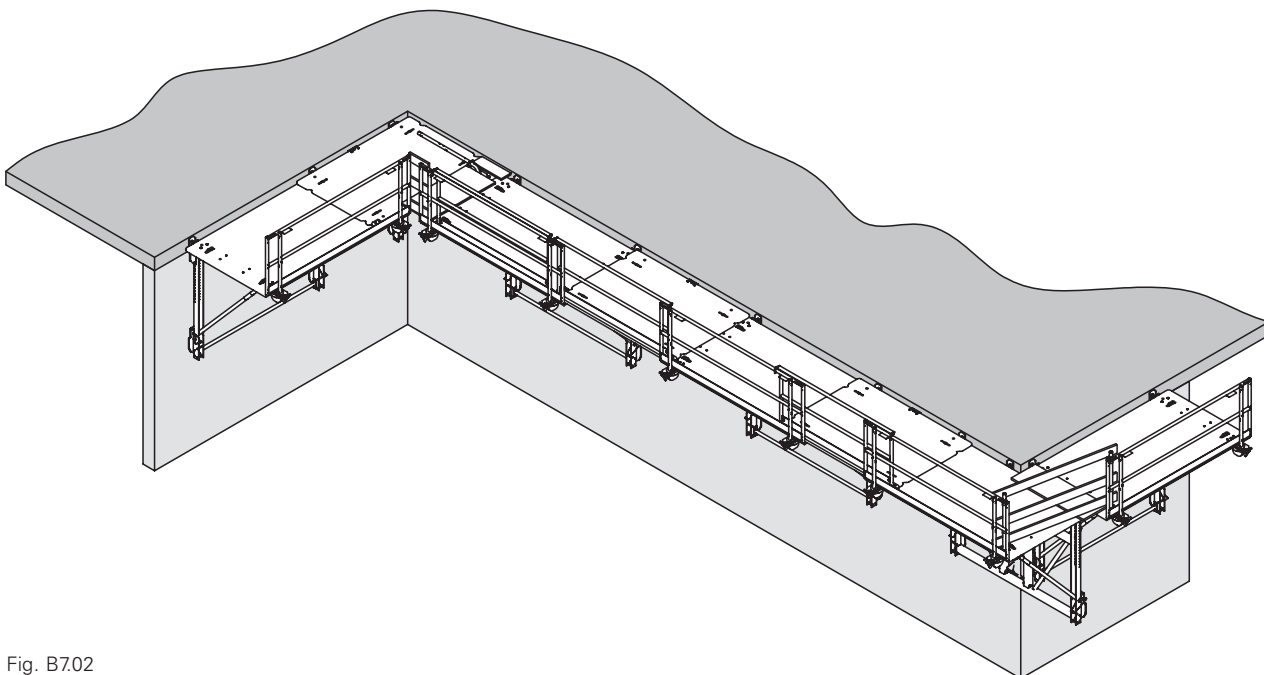


Fig. B7.02

FB 180 Folding Platform System



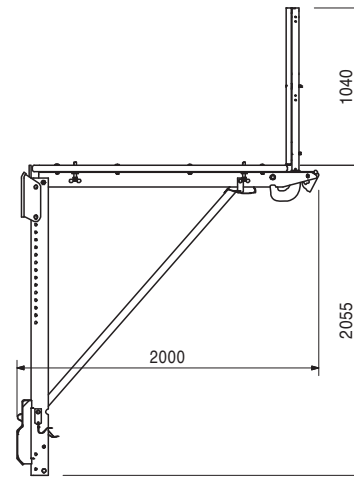
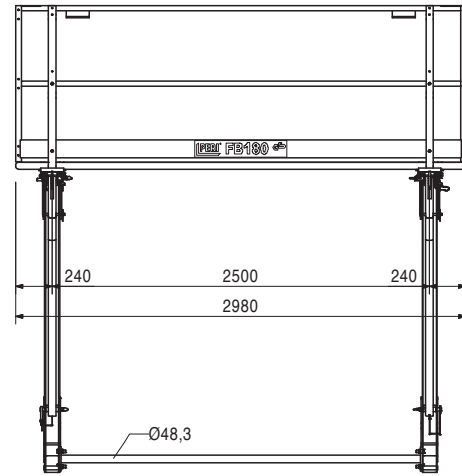
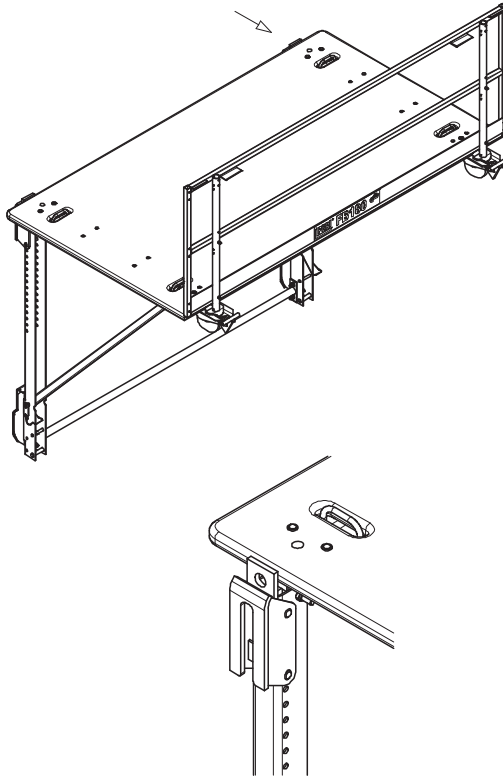
Item no.	Weight kg
026648	311,000

Folding Platform FB 180 – 3/300

Work and safety scaffold according. With continuous 45 mm thick decking and foldable handrail frame.

Technical Data

Permissible load 300 kg/m².
For special applications 450 kg/m².



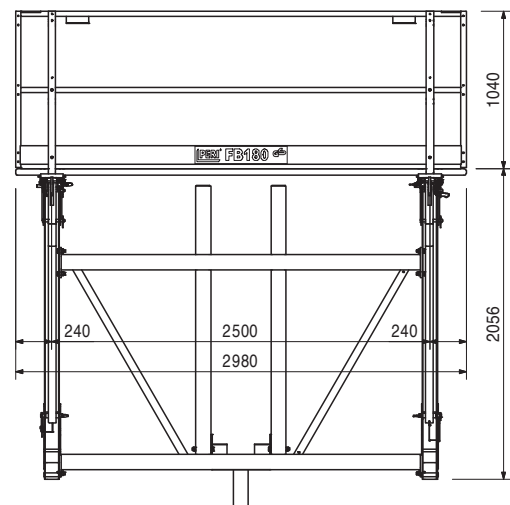
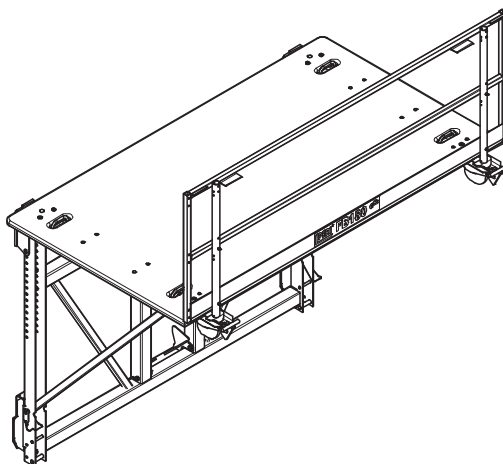
026649	478,000
--------	---------

Folding Corner Platform FEB 180 – 3/300

Corner platform which can be used on the left and right. Assembled from folding platform and Corner Frame FBE.

Technical Data

Permissible load 300 kg/m².



FB 180 Folding Platform System



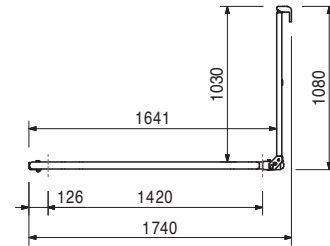
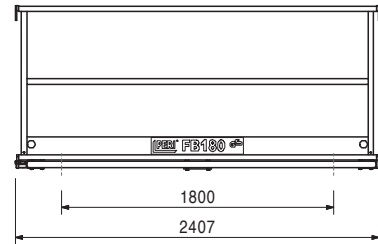
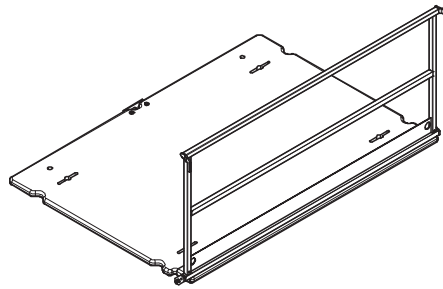
Item no.	Weight kg
026622	113,000

Intermediate Platform FBZ 240

As intermediate platform, or with accessories used as end platform. With continuous 45 mm thick platform decking and foldable handrail frame.

Technical Data

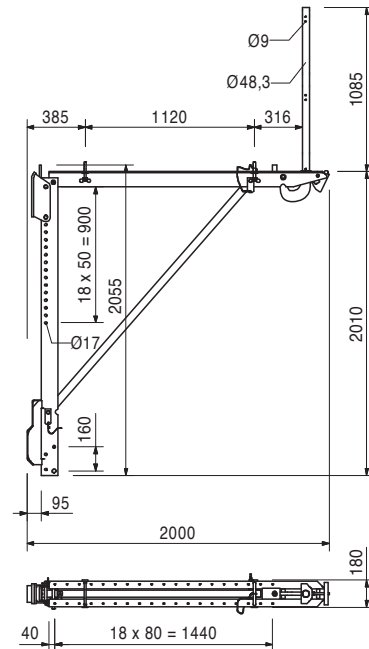
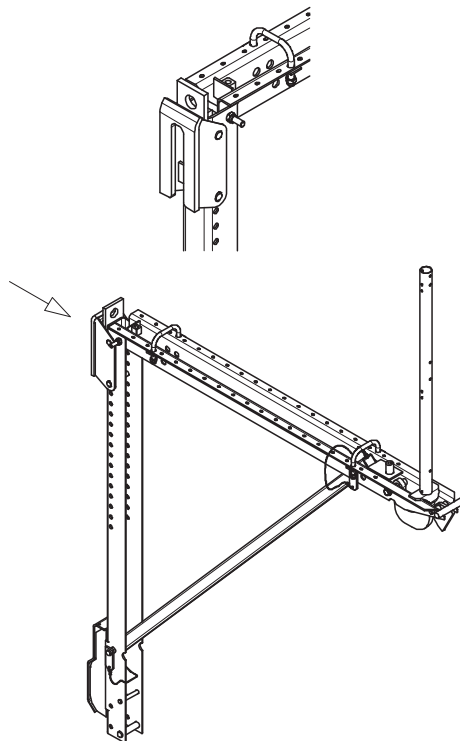
Permissible load 300 kg/m².



026652	81,400
--------	--------

Folding Bracket FB 180 – 3, compl.

For assembly of special platforms and in connection with FBZ intermediate platforms as telescopic end platform.



FB 180 Folding Platform System



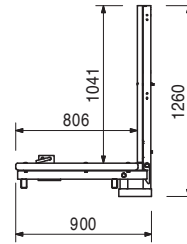
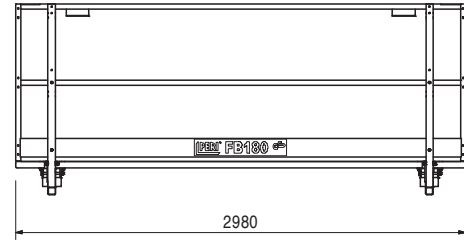
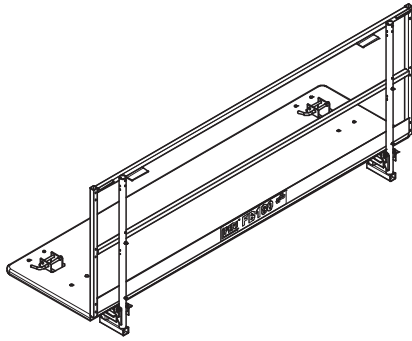
Item no.	Weight kg
026625	116,000

Finishing Platform FBN-2/300

With continuous 45 mm thick platform decking and foldable guardrail frame. Mounted to the Support Extension 200 or 300 FB-2.

Technical Data

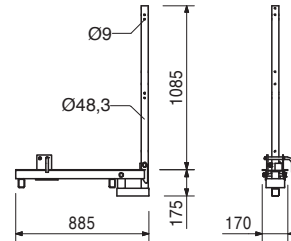
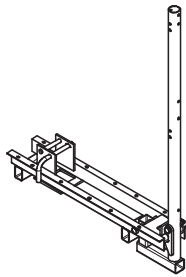
Permissible load 150 kg/m².



026631	16,100
--------	--------

Finishing Platform Bracket FBN-2

For assembling special finishing platforms.



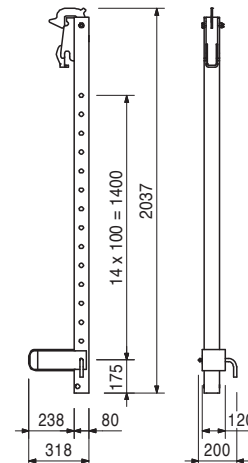
026623	29,800
--------	--------

Support Extension 200 FB-2, galv.

For extending the bottom pressure point without using the Compression Strut FB-2.

Note

Adjustable from 0.60 m to 2.00 m in 10-m-increments.



FB 180 Folding Platform System



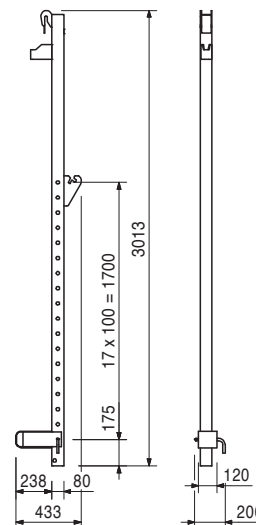
Item no.	Weight kg
026624	42,300

Support Extension 300 FB-2, galv.

For extending the bottom pressure point.
Only to be used with the Compression Strut FB-2, galv.

Note

Adjustable from 1.30 m to 3.00 m in 10-cm-increments.



Accessories

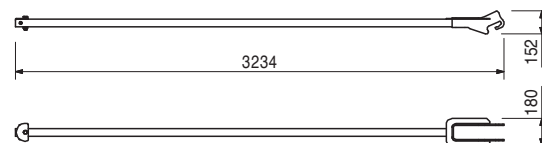
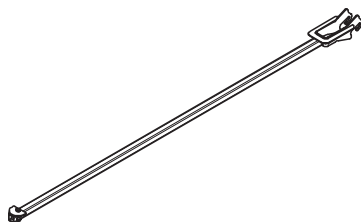
026627	21,200
--------	--------

Compression Strut FB-2

026627	21,200
--------	--------

Compression Strut FB-2

For use with Support Extension 300 FB-2.



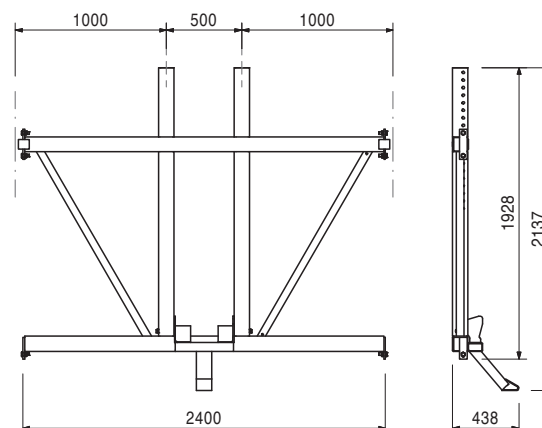
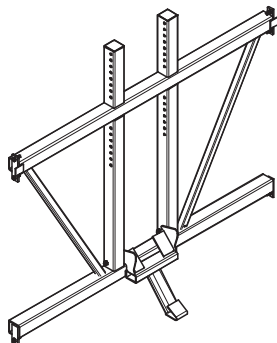
026626	177,000
--------	---------

Corner Frame FBE

For the use of the Folding Platform FB 180-3/300 as corner platform left and right on building corners.

Complete with

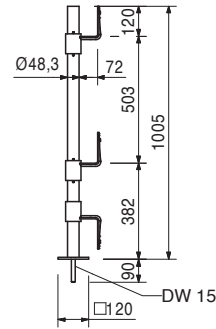
6 pc. 710225 Bolt ISO 4017 M16 x 45-8.8, galv.
6 pc. 070890 Nut ISO 7042 M16-8, galv.



Item no.	Weight kg
026628	7,120

Guardrail Post FBP

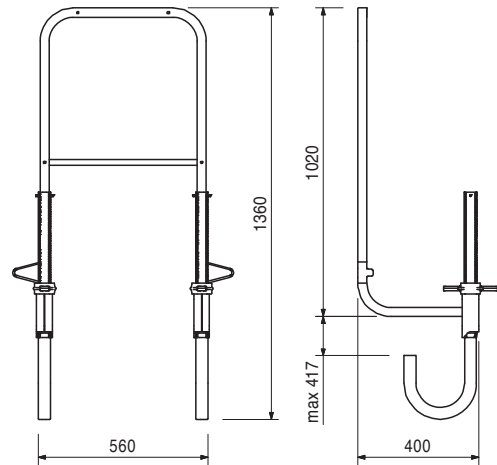
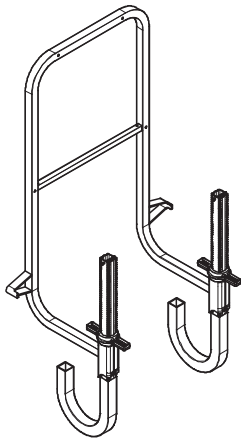
For assembly of a lateral guardrail on the FB 180.
Bolted on from above.



065066	15,100
--------	--------

End Guardrail Frame 55

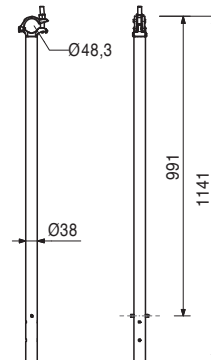
Clampable end guardrail for all PERI scaffold platforms and climbing systems.



026635	3,690
--------	-------

Guardrail Extension FB

For increasing the height of the guardrail up to $h = 2.00$ m when using the FB 180 as safety scaffold.



FB 180 Folding Platform System

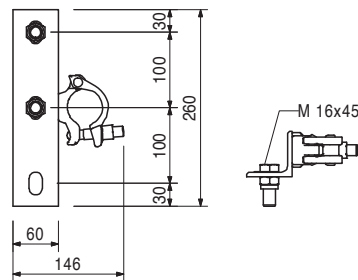
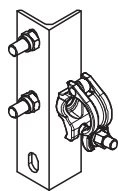
Item no.	Weight kg
026644	2,330

Pipe Bracing Connector, galv.

For connecting Scaffold Tube \varnothing 48.3 mm to the Folding Bracket FB 180 for special platforms.

Complete with

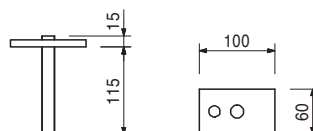
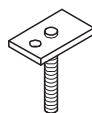
2 pc. 710225 Bolt ISO 4017 M16 x 45-8.8, galv.
2 pc. 070890 Nut ISO 7042 M16-8, galv.



026647	0,673
--------	-------

Screw Plate DW 15/115, galv.

For mounting and assembling TRP and FB 180 platforms.



051250	2,790
--------	-------

Tension Belt, l = 5.70 m, 2.5 t

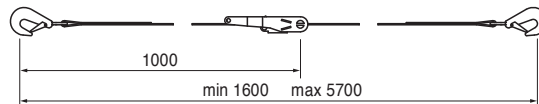
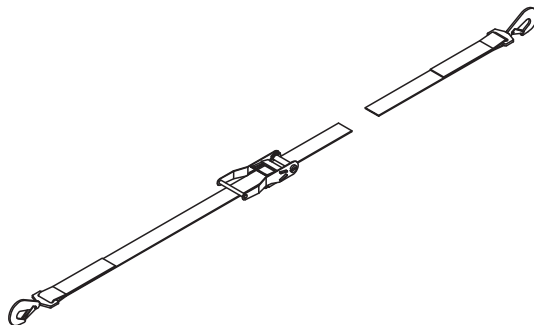
To prevent climbing systems from tipping over due to wind loads.

Note

Follow Instructions for Assembly and Use!

Technical Data

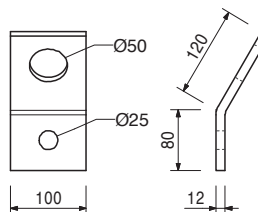
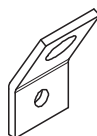
Permissible tension force 2.5 t.



051270	1,620
--------	-------

Tension Belt Connector Wall M24

Wall connector to prevent tipping over due to wind loads with Tension Belt. To be used for climbing systems CB and FB.



026430	0,334
--------	-------

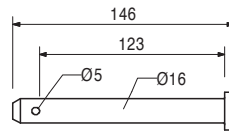
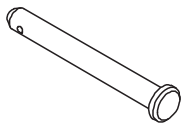
Accessories

Bolt ISO 4014 M24 x 70-10.9

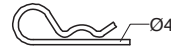
FB 180 Folding Platform System



Item no.	Weight kg	
715357	0,238	Pin Ø 16 x 150, galv.

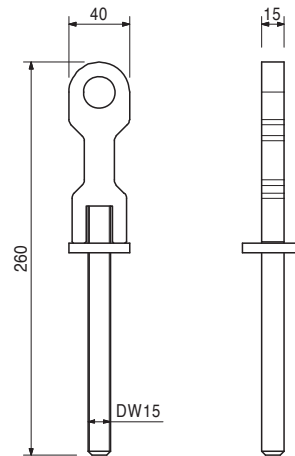
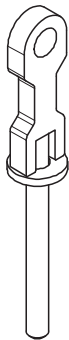


018060	0,030	Cotter Pin 4/1, galv.
--------	-------	------------------------------



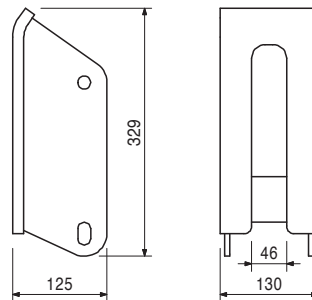
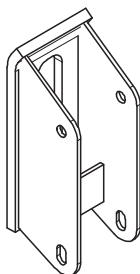
113810	0,621	Push-Pull Prop Bolt FB
--------	-------	-------------------------------

For fixing Base Plates of push-pull props on the Folding Platform FB 180-3.



026632	6,250	Mounting Head FB
--------	-------	-------------------------

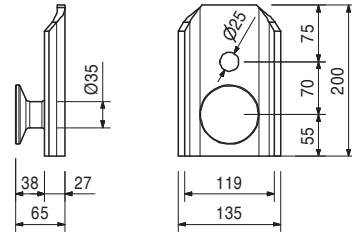
For mounting the folding platform on the Wall Scaffold Hinge FB or Scaffold Mounting Ring M24.



Item no.	Weight kg
026990	2,890

Wall Scaffold Hinge FB

For attaching the Folding Platform FB 180 with Mounting Head FB. Allows mounting point to be moved ± 2.5 cm laterally.



Accessories

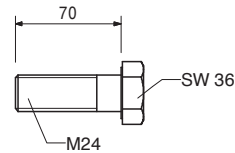
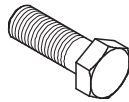
026430	0,334
--------	-------

Bolt ISO 4014 M24 x 70-10.9

026430	0,334
--------	-------

Bolt ISO 4014 M24 x 70-10.9

High-strength bolt for anchoring climbing systems.



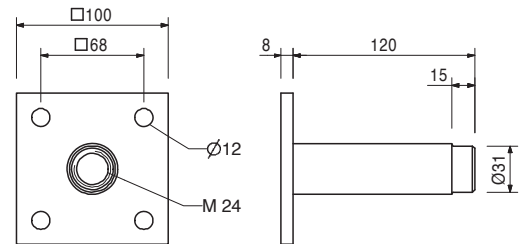
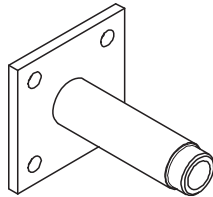
026230	1,010
--------	-------

Anchor Sleeve M24

To anchor platform systems.

Note

Separate design information on request.



Accessories

026240	0,026
026250	0,005
116233	0,116
026420	0,123
116234	0,033
115150	0,200

Cone PP Ø 31/26, c = 25

Plug Ø 26 mm

Cone FRC Ø 32/52, c = 40

Anchor Positioning Stud M24, galv.

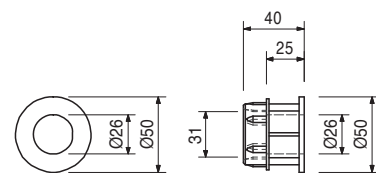
Plug FRC Ø 32 mm

Anchor Positioning Stud M24 x 65, galv.

026240	0,026
--------	-------

Cone PP Ø 31/26, c = 25

Resulting in a concrete cover of 25 mm in combination with Anchor Sleeve M24. Made of polypropylene.



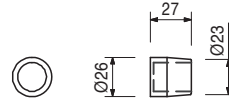
FB 180 Folding Platform System



Item no.	Weight kg
026250	0,005

Plug Ø 26 mm

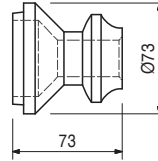
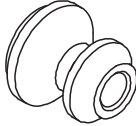
For closing Cone PP Ø 31 for Anchor Sleeve M24.
Made of polypropylene.



029470	0,723
--------	-------

Scaffold Mounting Ring M24, galv.

Anchor System M24.
For anchoring climbing systems.



Accessories

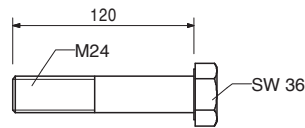
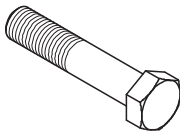
029560	0,535
--------	-------

Bolt ISO 4014 M24 x 120-10.9

029560	0,535
--------	-------

Bolt ISO 4014 M24 x 120-10.9

High-strength bolts for anchoring climbing systems.



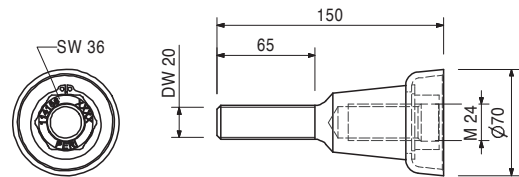
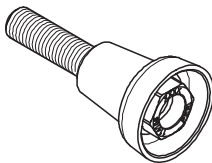
114158	1,030
--------	-------

Screw-On Cone-2 M24/DW 20, galv.

Anchor system M24.
For anchoring climbing systems.

Note

Separate design information on request.



Accessories

030860	0,801
--------	-------

Threaded Anchor Plate DW 20

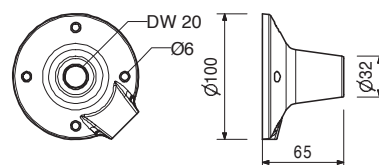
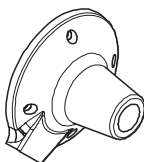
030860	0,801
--------	-------

Threaded Anchor Plate DW 20

For use with Tie Rod DW 20, B 20 or Screw-On Cone-2 M24/DW 20. For anchoring in concrete.

Note

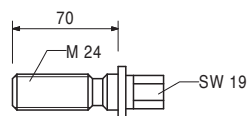
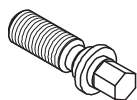
Lost anchor part.



Item no.	Weight kg
029270	0,331

Advancing Bolt M24, galv.

For fixing the M24 anchor system if the plywood formlining is drilled through.



Accessories

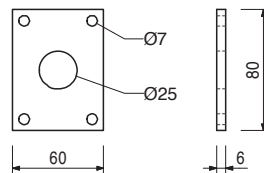
029280	0,196
--------	-------

Anchor Positioning Plate M24, galv.

029280	0,196
--------	-------

Anchor Positioning Plate M24, galv.

For fixing the M24 anchor system if the plywood formlining is drilled through.



Accessories

029440	0,005
--------	-------

Lag Screw DIN 571 6 x 20, galv.

026420	0,123
--------	-------

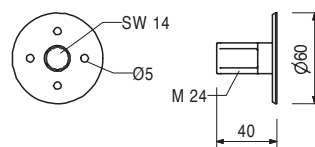
Anchor Positioning Stud M24, galv.

For fixing the M24 anchor system if the plywood formlining is not drilled through.



Note

Allen Key SW 14.



Accessories

027212	0,445
710312	0,005

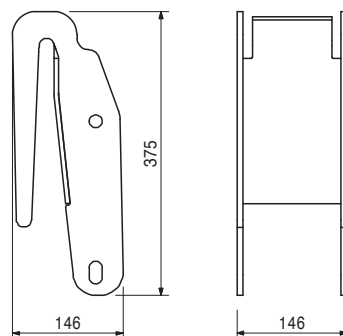
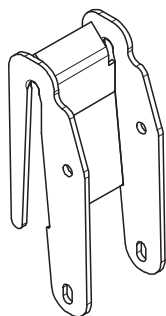
Allen Key SW 14, long

Nail 3 x 80

026645	5,460
--------	-------

Loop Mounting Head-2 FB, galv.

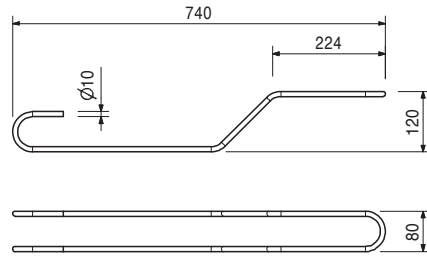
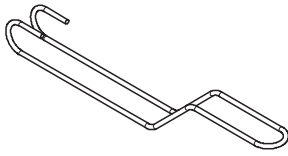
For mounting the Folding Platform FB 180 on the Anchor Loop.



Item no.	Weight kg
026636	1,140

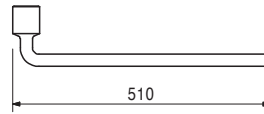
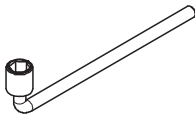
Anchor Loop
To anchor platform systems.

Note
Always use in pairs.
Separate design information on request.



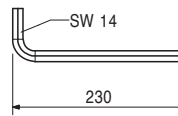
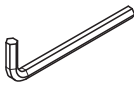
031480	2,460
--------	-------

Socket Wrench SW 36, chrome-plated
For various purposes.



027212	0,445
--------	-------

Allen Key SW 14, long
Fits to PERI Anchor Positioning Studs and Allen Key Bolts M16.

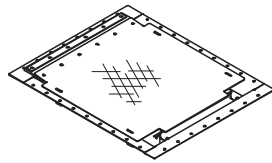


Ladder Access for Climbing Systems

Item no.	Weight kg
126431	12,300

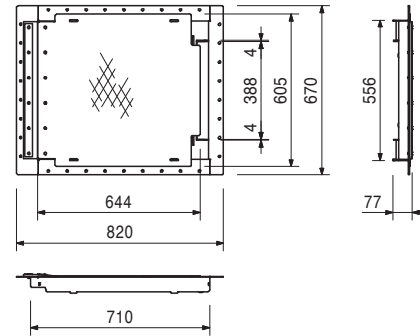
Hatch 55 x 60-2, foldable

Self-closing hatch for ladder access. Clear opening approx. 55 x 60 cm. Ladder fixation with bolts or by hanging up.



Complete with

1 pc. 126785 Hatch Hinge RCS
 12 pc. 108647 Rivet DIN 7337- A5 x 20
 2 pc. 022230 Cotter Pin 5/1, galv.



710224	0,047
710381	0,017

Accessories

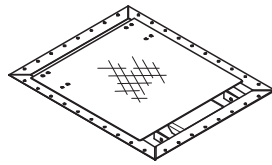
Bolt ISO 4017 M12 x 40-8.8, galv.

Nut ISO 7042 M12-8, galv.

110608	15,600
--------	--------

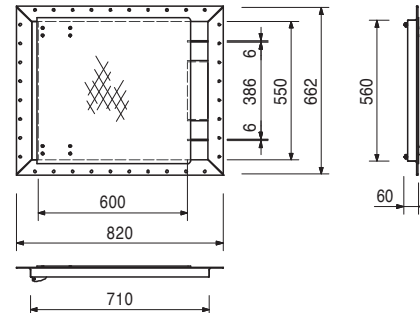
Hatch 55 x 60, foldable

Self-closing hatch for ladder access. Clear opening approx. 55 x 60 cm. Ladder fixation with bolts.



Complete with

1 pc. 110529 Hinging Plate left, galv.
 1 pc. 110535 Hinging Plate right, galv.
 8 pc. 721412 Rivet DIN 7337 - A4,8 x 12



710224	0,047
710381	0,017

Accessories

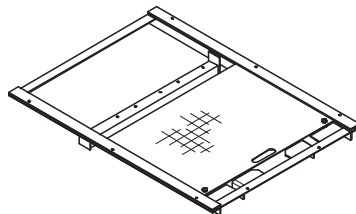
Bolt ISO 4017 M12 x 40-8.8, galv.

Nut ISO 7042 M12-8, galv.

051430	37,900
--------	--------

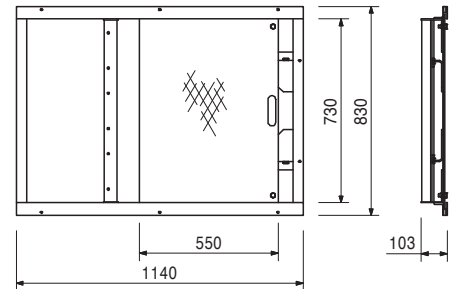
Sliding Hatch Cover

Non self-closing hatch for ladder access. Clear opening approx. 73 x 55 cm. Ladder fixation with bolts.



Complete with

4 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv.
 4 pc. 710381 Nut ISO 7042 M12-8, galv.

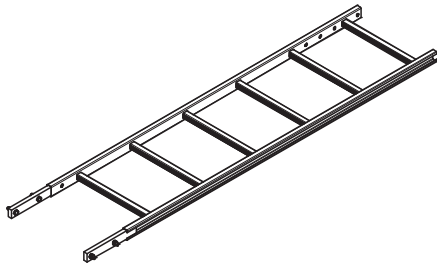


Ladder Access for Climbing Systems

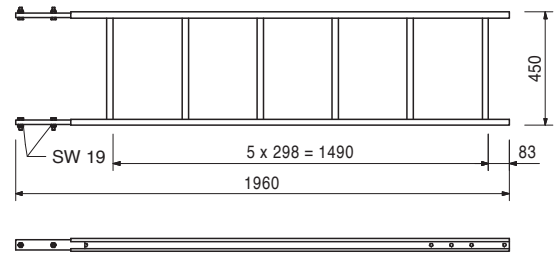


Item no.	Weight kg
051410	11,700

Ladder 180/6, galv.
As access for PERI formwork systems.



Complete with
4 pc. 710224 Bolt ISO 4017 M12 x 40-8.8, galv.
4 pc. 710381 Nut ISO 7042 M12-8, galv.

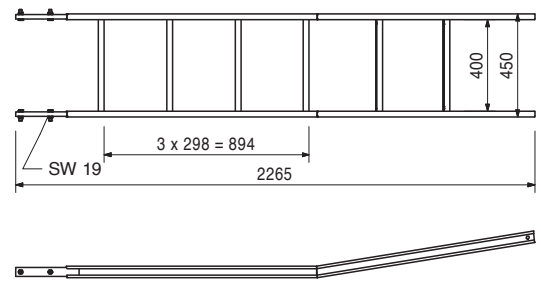


051420	12,800
--------	--------

Ladder 220/6
As access for PERI formwork systems.

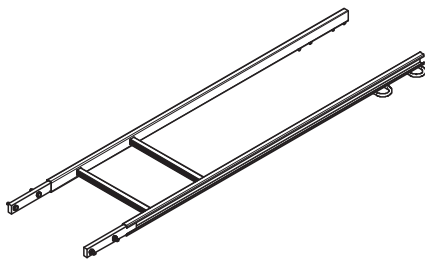


Complete with
4 pc. 710224 Bolt ISO 4017 M12 x 40-8.8, galv.
4 pc. 710381 Nut ISO 7042 M12-8, galv.

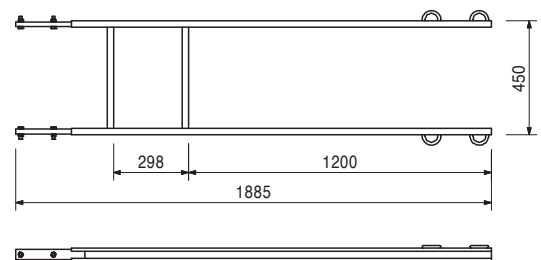


103724	10,400
--------	--------

End Ladder 180/2, galv.
As access for PERI formwork systems.

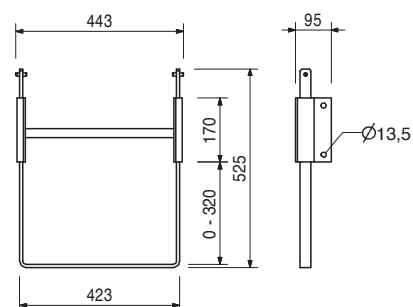
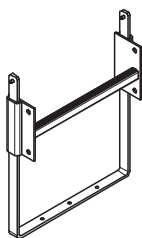


Complete with
4 pc. 710224 Bolt ISO 4017 M12 x 40-8.8, galv.
4 pc. 710381 Nut ISO 7042 M12-8, galv.



109105	5,070
--------	-------

Ladder Base 30 adjustable, galv.
For horizontal fixing of ladders on the platform decking.

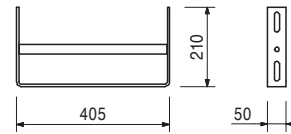
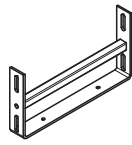


Ladder Access for Climbing Systems

Item no.	Weight kg
051460	2,180

Ladder Base, galv.

As bottom ladder connection and for securing ladders against sliding on the scaffold decks.



103718	0,684
--------	-------

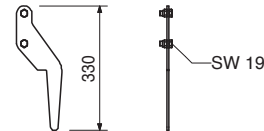
Ladder Hook, galv.

For adjusting the bottom ladder.
Always use in pairs.



Complete with

2 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv.
2 pc. 710381 Nut ISO 7042 M12-8, galv.



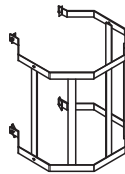
104132	15,600
051450	25,200

Ladder Safety Cages, galv.

Ladder Safety Cage 75, galv.

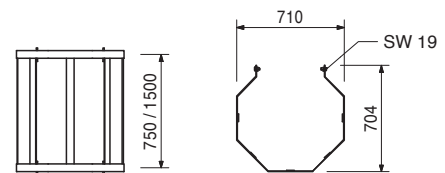
Ladder Safety Cage 150, galv.

Ladder safety cage for PERI access ladders.



Complete with

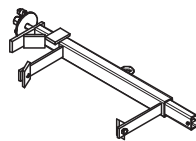
4 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv.
4 pc. 701763 Clamping Plate FI 25 x 10 x 90



111165	6,080
--------	-------

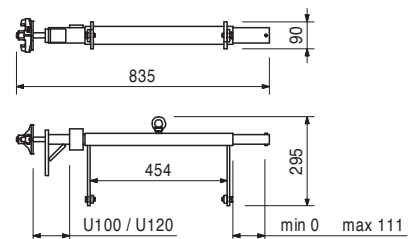
Ladder Connector VARIO, adjustable

For connecting ladders to Steel Walers SRZ and SRU, Profile U100 - U120.



Complete with

2 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv.
2 pc. 701763 Clamping Plate FI 25 x 10 x 90





01 Germany
PERI GmbH
 Rudolf-Diesel-Strasse 19
 89264 Weissenhorn
 info@peri.com
 www.peri.com



02 France
 PERI S.A.S.
 77109 Meaux Cedex
 peri.sas@peri.fr
 www.peri.fr

03 Switzerland
 PERI AG
 8472 Ohringen
 info@peri.ch
 www.peri.ch

04 Spain
 PERI S.A.U.
 28110 Algete - Madrid
 info@peri.es
 www.peri.es

05 Belgium/Luxembourg
 N.V. PERI S.A.
 1840 Londerzeel
 info@peri.be
 www.peri.be

06 Netherlands
 PERI Holding B.V.
 5480 AH-Schijndel
 info@peri.nl
 www.peri.nl

07 USA
 PERI Formwork Systems, Inc.
 Elkridge, MD 21075
 info@peri-usa.com
 www.peri-usa.com

08 Indonesia
 PT Beton Perkasa Wijaksana
 Jakarta 10210
 bpw@betonperkasa.com
 www.peri.com

09 Italy
 PERI S.p.A.
 20060 Basiano
 info@peri.it
 www.peri.it

10 Japan
 PERI Japan K.K.
 Tokyo 103-0015
 info@perijapan.jp
 www.perijapan.jp

11 United Kingdom/Ireland
 PERI Ltd.
 Rugby, CV23 0AN
 info@peri.ltd.uk
 www.peri.ltd.uk

12 Turkey
 PERI Kalip ve Iskeleleri Sanayi
 ve Ticaret Ltd.
 Esenyurt / Istanbul 34510
 info@peri.com.tr
 www.peri.com.tr

13 Hungary
 PERI Kft.
 1181 Budapest
 info@peri.hu
 www.peri.hu

14 Malaysia
 PERI Formwork Malaysia Sdn. Bhd.
 43300 Seri Kembangan,
 Selangor Darul Ehsan
 info@perimalaysia.com
 www.perimalaysia.com

15 Singapore
 PERI Asia Pte Ltd
 Singapore 387355
 pha@periasia.com
 www.periasia.com

16 Austria
 PERI Ges.mbh
 3134 Nußdorf ob der Traisen
 office@peri.at
 www.peri.at

17 Czech Republic
 PERI spol. S r.o.
 252 42 Jesenice u Prahy
 info@peri.cz
 www.peri.cz

18 Denmark
 PERI Danmark A/S
 2670 Greve
 peri@peri.dk
 www.peri.dk

19 Finland
 PERI Suomi Ltd. Oy
 05460 Hyvinkää
 info@perisuomi.fi
 www.perisuomi.fi

20 Norway
 PERI Norge AS
 3036 Drammen
 info@peri.no
 www.peri.no

21 Poland
 PERI Polska Sp. z o.o.
 05-860 Płochocin
 info@peri.com.pl
 www.peri.com.pl

22 Sweden
 PERIform Sverige AB
 30262 Halmstad
 peri@periform.se
 www.periform.se

23 Korea
 PERI (Korea) Ltd.
 Seoul 135-936
 info@perikorea.com
 www.perikorea.com

24 Portugal
 Pericofragens Lda.
 2790-326 Queijas
 info@peri.pt
 www.peri.pt

25 Argentina
 PERI S.A.
 B1625GPA Escobar – Bs. As.
 info@peri.com.ar
 www.peri.com.ar

26 Brazil
 PERI Formas e
 Escoramentos Ltda.
 Vargem Grande Paulista – SP
 info@peribrasil.com.br
 www.peribrasil.com.br

27 Chile
 PERI Chile Ltda.
 Colina, Santiago de Chile
 perichile@peri.cl
 www.peri.cl

28 Romania
 PERI România SRL
 077015 Balotești
 info@peri.ro
 www.peri.ro

29 Slovenia
 PERI Agency
 2000 Maribor
 peri.slo@triera.net
 www.peri.com

30 Slovakia
 PERI spol. s. r.o.
 903 01 Senec
 info@peri.sk
 www.peri.sk

31 Australia
 PERI Australia Pty. Ltd.
 Glendenning NSW 2761
 info@periaus.com.au
 www.periaus.com.au

32 Estonia
 PERI AS
 76406 Saku vald
 Harjumaa
 peri@peri.ee
 www.peri.ee

33 Greece
 PERI Hellas Solely Owned Ltd.
 194 00 Koropi
 info@perihellas.gr
 www.perihellas.gr

34 Latvia
 PERI SIA
 2118 Salaspils novads, Rigas rajons
 info@peri-latvija.lv
 www.peri-latvija.lv

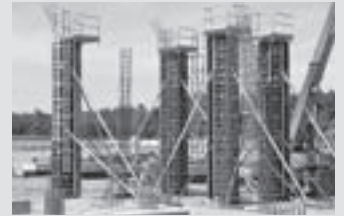
35 United Arab Emirates
 PERI (L.L.C.)
 Bolton, ON – L7E 1K1
 perillc@perime.com
 www.perime.com

36 Canada
 PERI Formwork Systems, Inc.
 Bolton, ON – L7E 1K1
 info@peri.ca
 www.peri.ca

The optimal System for every Project and every Requirement



Wall Formwork



Column Formwork



Slab Formwork



Climbing Systems



Tunnel Formwork



Bridge Formwork



Shoring Systems



Construction Scaffold



Facade Scaffold



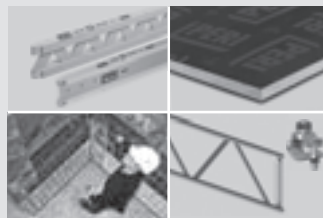
Industrial Scaffold



Access



Protection Scaffold



System-Independent Accessories



Services



PERI GmbH
Formwork Scaffolding Engineering
 Rudolf-Diesel-Strasse 19
 89264 Weissenhorn
 Germany
 Tel. +49 (0)7309.950-0
 Fax +49 (0)7309.951-0
 info@peri.com
 www.peri.com