

Instructions for Assembly and Use – Standard Configuration – Edition 06/2017



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Overview

PER

Main components





Adjustable Base Plate UJB 1 2 Base Standard UVB 24

Ledger UH

Standard UVR

Top Standard UVH

Ledger Brace UBL

- 6 Spindle Locking UJS 7
- Locking Pin Ø 48/57
- 11 Cross Forkhead TR 38-70/50
 - alternatively: Head Spindle Head Spindle Locking UJH 12
 - Base Plate for Spindle Tube TR 48
 - 20 21 Spindle Tube TR 48
- 24 Quick Jack Nut TR 48-2
- 25 Base Standard UVB 135 Plus
- 26 Head Plate for Spindle Tube TR 48
- alternatively: Cross Head Spindle TR 48 27
- Spindle Locking UJS Plus 28 Top Standard UVH 165 Plus
- 32 Shoring Brace UBS

PERI UP Flex Shoring Tower

Instructions for Assembly and Use - Standard Configuration

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4

4a

5

Overview



Key

Pictogram Definition		Dimension specifications
	Safety instructions	Dimensions are usually given in cm. Other units of measure, e.g. m, are shown in the illustrations.
→	Note	Conventions Instructions are numbered with:
$\boldsymbol{\Diamond}$	Load-bearing point	 1, 2, 3 The result of an instruction is shown by: →
V	Visual check	 Position numbers are clearly provided for the individual components and are given in the drawing, e.g. 1, in the text
`ف ַ`	Тір	 in brackets, for example (1). Multiple position numbers, i.e. alternative components, are represented
\oslash	Misapplication	with a slash, e.g. 1 / 2 .

Arrows

- ➡ Arrow representing an action
- Reaction arrow representing an action

Presentational reference

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 correspondingly valid for all component sizes contained in the standard configuration. For a better understanding, detailed illustrations are partly incomplete. The safety installations which have possibly not been featured in these detailed drawings must nevertheless still be available.

Introduction

Target groups

Contractors

These Instructions for Assembly and Use are designed for contractors who use the scaffolding either for

- assembling, modifying and dismantling, or use
- it e.g. for concreting or
- who have it used, e.g. for forming operations.

Competent person

(Construction Site Coordinator) The Safety and Health Coordinator*

- is appointed by the client,
- must identify potential hazards during the planning phase,
- determines measures that provide protection against risks,
- creates a safety and health plan,
- coordinates the protective measures for the contractor and site personnel so that they do not endanger each other,
- monitors compliance with the protective measures.

Competent person qualified to carry out inspections

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

Qualified persons

The scaffolding may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. For the work to be carried out, the qualified persons must have received instructions** which contain at least the following points:

- An explanation of the plan for the assembly, modification or dismantling of the scaffolding in an understandable form and language.
- Description of the measures in order to safely assemble, modify or dismantle the scaffolding.

- Designation of the preventive measures to avoid the risk of persons and objects falling.
- Designation of the safety precautions in the event of changing weather conditions which could adversely affect the safety of the scaffolding as well as the personnel concerned.
- Details regarding the permissible loads.
- Description of any other risks that are associated with the assembly, modification or dismantling procedures.

In other countries, ensure that the relevant national guidelines and regulations in the respective current version are complied with!

- If no country-specific regulations are available, it is recommended to proceed according to German rules and regulations.
- A competent person must be present on site during scaffolding work.

- Valid in Germany: Regulations for Occupational Health and Safety on Construction Sites 30 (RAB 30).
- ** Instructions are given by the contractor himself or a competent person selected by him.

Additional technical documentation

- Type Test No. S/N 030340
- Instructions for Use
 - Trolley with Winch
 - Pallets and Stacking Devices
- Data Sheet for Anchor Bolt PERI 14/20 x 130
- PERI Design Tables Formwork and Shoring
- Design Tables PERI UP Flex

Introduction



Intended use

Product description

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

The PERI UP Flex Shoring Tower allows a large range of project-specific application possibilities. As a result of the building-specific risk assessment, there are also other possibilities of ensuring assembly reliability and working safety with the help of components from the PERI UP Scaffolding Kit, e.g. decks, hatches, stairs.

Features

The PERI UP Flex Shoring Tower is used in shoring constructions in a systematic vertical position for transferring vertical and, in part, horizontal loads. All components are galvanized. The main feature of the PERI UP Flex Shoring Tower is the particularly rigid node connection between the rosettes of the standards and the ledgers.

For erecting the shoring towers, individual standards are connected with ledgers which are particularly easy to assemble due to the wedge connections. Bracing is installed in the form of system diagonals.

Through the combination of standards with lengths of L = 2.0 m and top standards of varying lengths, all heights can be continuously achieved.

Shoring tower dimensions

Assembly of the shoring tower is shown using the dimensions 2.00 x 1.50 m as an example. The following dimensions are possible: Longitudinal direction: 1.00 / 1.50 / 2.00 / 2.50 / 3.00 m. Lateral direction: 1.00 / 1.50 / 2.00 / 2.50 / 3.00 m Any combination is allowed.

System dimensions

PERI UP Flex Shoring Tower

Type-tested assembly heights as freestanding individual towers up to 8.39 m: restrained at the top up to 21.89 m (22.34 m with spindle section) for ground plans with 1.50 x 1.50 m and more.

PERI UP Flex Shoring Tower with Additional Frame (VSS)

Assembly heights 1.33 m to 21.89 m.

PERI UP Flex Shoring Tower Plus

Adj. Base Plate TR 48, Head Spindle TR 48 up to 15.58 m. Adj. Base Plate and Head Spindle TR 48 up to 16.26 m.

Technical data

Permissible load-bearing capacities: see type tests and PERI design tables. PERI UP Flex Shoring Towers correspond to Rating Class B1 in accordance with DIN EN 12812.

Instructions for use

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.

Deviations from the standard configuration for each individual application must be verified by means of separate strength and stability calculations (Industrial Safety Regulation Appendix 1, No. 3.2.1) and explicitly reflected in the assembly instructions. Only original PERI scaffolding components may be used. The use of other products and spare parts is not allowed.

Changes to PERI components are not permitted.

Introduction

Cleaning and maintenance instructions

In order to maintain the value and operational readiness of the PERI products over the long term, clean the elements after each use.

Some repair work may also be inevitable due to the tough working conditions. The following points should help to keep cleaning and maintenance costs as low as possible.

Do not clean powder-coated or galvanized components with steel brushes or metal scrapers.

Mechanical components, e.g. spindles, must be cleaned of dirt or concrete residue before and after use.

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

Do not clean components suspended on a crane.

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

Safety instructions



Cross-system

General

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

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

Always take into consideration and comply with the safety instructions and permissible loads.

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

Materials and working areas are to be inspected on a regular basis, especially before each use and assembly, for:

- signs of damage,
- stability and
- function.

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

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

Components provided by the contractor must conform with the characteristics required in these Instructions for Assembly and Use as well as all valid construction guidelines and standards. Unless otherwise indicated, this applies in particular to:

- Timber components: Strength Class C24 for Solid Wood according to EN 338.
- Scaffold tubes: galvanised steel tubes with minimum dimensions of Ø 48.3 x 3.2 mm according to EN 12811-1:2003 4.2.1.2.
- Scaffold tube couplings according to EN 74.

Deviations from the standard configuration are only permitted after a further risk assessment has been carried out by the contractor. On the basis of this risk assessment, appropriate measures for working and operational safety as well as stability are to be determined.

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

Before and after exceptional occurrences that may have an adverse effect regarding the safety of the scaffolding system, the contractor must immediately

- create an additional risk assessment, with appropriate measures for ensuring the stability of the formwork system being carried out based on the results,
- and arrange for an extraordinary inspection by a competent person. The aim of this inspection is to identify and rectify any damage in good time in order to guarantee the safe use of the scaffolding system.

Exceptional occurrences can include:

- accidents,
- longer periods of non-use,
- natural events, e.g. heavy rainfall, icing, heavy snowfall, storms or earthquakes.

Assembly, modification and dismantling work

Assembly, modification or dismantling of scaffolding systems may only be carried out by qualified persons and under the supervision of a competent person. The qualified persons must have received appropriate training for the work to be carried out with regard to specific risks and dangers.

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

Before initial use, the safe functioning of the scaffold must be checked by a person qualified to carry out the inspection. The result of the inspection must be documented in an inspection record. The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the system, e.g.

- safety helmet,
- safety shoes,
- safety gloves,
- safety glasses,
- is available and used as intended.

If personal protective equipment against falling (PPE) is required or specified in local regulations, the contractor must determine appropriate attachment points on the basis of the risk assessment.

The personal protective equipment against falling to be used is determined by the contractor.

The contractor must

- provide safe working areas for site personnel which are to be reached through the provision of safe access ways. Areas of risk must be cordoned off and clearly marked.
- ensure the stability during all stages of construction, in particular during assembly, modification and dismantling operations.
- ensure and prove that all loads can be safely transferred.

Utilization

Every contractor who uses or allows the scaffolding system or sections of the scaffolding system to be used, has the responsibility for ensuring that the equipment is in good condition.

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

Safety instructions

System-specific

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

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

The load-distributing support used, such as planking, must match the respective base. If several layers are required, planks are to be arranged crosswise.

Tighten couplings with screw closures using 50 Nm. This corresponds to a force of 20 kg using a lever arm length of 25 cm.

Secure wedges using a 500 g hammer.

Storage and transportation

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

Do not drop the components.

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

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.
- no persons are allowed to remain under the suspended load.

Always guide pre-assembled scaffolding bays, scaffolding units or scaffolding sections with ropes when moving them by crane.

The access areas on the jobsite must be free of obstacles and tripping hazards as well as being slip-resistant.

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

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

Safety during assembly



Attachment points for PPE



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

General information

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



Attachment points

- The standard ends in the last assembly level:
- each ledger is in the assembly level (I)
- each rosette in the assembly level (II)



Attachment points

The standard ends 50 cm above the last assembly level:

- each ledger is in the assembly level (I)
 each rosette up to max. 50 cm above
 - the last assembly level (II, III)



Attachment points

The standard ends 1.0 m above the last assembly level:

- each ledger is in the assembly level (I)
- each rosette up to max. 1.0 m above the last assembly level (II, III, IV)



Attachment points

The standard ends 1.5 m above the last assembly level:

- each ledger is in the assembly level (I)
- each rosette up to max. 1.0 m above the last assembly level (II, III, IV)

Requirements

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

PERI

Qty

4x

4x

2x

2x

4x

PFR

General

The PERI UP Flex Shoring Tower is shown without additional ledgers. Assemble the shoring tower so that the wider side is lying flat on the ground. The tower is subsequently erected via this side.

Base unit

The base unit is vertically assembled up to a height of 2.0 m. For further assembly, the base unit is positioned on its side and forms the basis for the horizontal assembly.

Components

- 1 Adjustable Base Plate UJB
- 2 Base Standard UVB 24
- 3 Ledger UH 200 Plus* 3a Ledger UH 150 Plus* Spindle Locking UJS 6 **10** H-Brace UBH Flex
- (as assembly aid) 1x
- * Length is dependent on the layout of the shoring tower.

Assembly

- 1. Assemble base frame using the components. (Fig. A1.01)
- 2. Right-angle adjustment of the frame with H-Brace (10). (Fig. A1.02)
- 3. Horizontally align frame by adjusting the Adjustable Base Plates (1).
- 4. Securely fix all wedges to the ledgers using a 500 g hammer (hammer in tightly).
- 5. Secure Adjustable Base Plates by means of Spindle Locking devices. (Fig. A1.01a)



The H-Braces also ensure the squareness during crane transport.



- Align all the pegging holes in the Base Standard in one direction.

1



Fix the Spindle Locking UJS (6) to the bottom hole of the Base Standard by screwing in the bolt (6.1). The Quick Jack Nut (1.1) must be positioned within the Spindle Locking UJS.





PERI

Standards and ledgers

Components

- 4 Standard UVR 200
- 3 Ledger UH 200 Plus*
- 3a Ledger UH 150 Plus*
- 5 Ledger Brace UBL 200/150*
- 5a Ledger Brace UBL 150/150*
- **7** Locking Pin Ø 48/57
- * Length is dependent on the layout of the shoring tower.

Ledger spacing

- Example: ledger spacing according to the type test 1.50 m.
- Other ledger spacings are possible but these required separate static proof. They do not form part of the type test.

Assembly

- Insert Standards (4) and tightly connect using Locking Pins (7). (Fig. A1.03c)
- 2. Install Ledgers (3).
- 3. Insert Ledger Braces (5) with the finger (5.1) in the bottom Ledgers (3). (Fig. A1.03b)
- 4. Insert the gravity pin (5.2) into the holes of the top ledger, turn pin to secure. (Fig. A1.03a)
- 5. Secure Ledgers with a hammer.
- 6. Position Base Unit on support timbers (min. 6 cm high) for further assembly.
- 7. If necessary, the H-Brace (10) can be removed.



 Ledgers are secured with hammer blows only after ledger braces have been installed.

As an alternative to Locking Pin
 Ø 48/57, Bolt M10x70, 8.8 with Nut
 M10 (4x) can always be used.



PERI

Height units

Standards

Co	mponents	Qty
4	Standard UVR 200	4x
7	Locking Pin Ø 48/57	4x

Assembly

Insert Standards (4) and tightly connect using Locking Pins (7). (Fig. A1.04)



Fig. A1.04

Ledgers and diagonals

Co	mponents	Qty
3	Ledger UH 200 Plus*	2x
3a	Ledger UH 150 Plus*	2x
5	Ledger Brace UBL 200/150*	2x
5a	Ledger Brace UBL 150/150*	2x

* Dependent on the layout of the shoring tower.

Assembly

- 1. Install Ledgers (3, 3a) using 1.50 m spacings. (Every third rosette)
- 2. Mount Ledger Braces (5, 5a):
 Mount the bottom-positioned Ledger Brace (5) from the inside.
- Mount the remnaining Ledger Braces from the outside. (Fig. A1.05)
- 3. Repeat steps 1 and 2 until the required end height has been reached. Last Standard = Top Standard UVH, see Top Tower Unit.



Top tower unit



Shown here in a vertical position due to didactical reasons!

The assembly example shows a height adjustment of 1.50 m. (Fig. A1.07c)

Co	mponents	Qt
4a	Top Standard UVH 150*	4
3	Ledger UH 200 Plus*	4
3a	Ledger UH 150 Plus*	4
5	Ledger Brace UBL 200/150*	2
5a	Ledger Brace UBL 150/150*	2
5b	Ledger Brace UBL 200/100*	2
5c	Ledger Brace UBL 150/100*	2
7	Locking Pin Ø 48/57	Z
11	Cross Forkhead TR 38-70/50	Z
12	Head Spindle Locking UJH	Ζ
* D	anondant on the charing towar	

* Dependent on the shoring tower layout and height.



Assembly

- 1. Insert Top Standards (4a) to adjust the height (UVH 100, 150, 200, 250).
- 2. Tightly connect Top Standards using Locking Pins (7).
- 3. Install Ledgers (3, 3a).
- 4. Mount Ledger Braces (5 5c) and secure Ledgers.
- 5. Insert Cross Forkhead (11).
- 6. Place the Head Spindle Locking (12) at an angle on the Ledger and first insert the hooks (12.1) into the rosette holes (4.1) from below.
- 7. Swivel the Head Spindle Locking upwards over the Quick Jack Nut (11.1), hammer in wedge (12.2) and secure with cotter pin (12.3).

(Fig. A1.06 - A1.06b)





Fig. A1.06b

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Height adjustment

Height adjustment takes place through the use of corresponding Top Standards (heights of 100/150/200/25 cm) and adjusting the spacing of the Ledgers. (Fig. A1.07a – A1.07d)



Erection with the crane



- Risk of injury from falling components!
 - Ensure that all Standards are tightly connected!
- Risk of falling! Ensure that removal of the lifting gear is carried out from a safe working position!
- Only attach to those rosette nodes which are directly connected to the Ledgers.

Erection

- 1. Completely spindle in the bottom Adjustable Base Plates in order to prevent overloading the components during erection.
- 2. Place four chains or textile lifting slings, e.g. round slings, underneath those rosette nodes complete with Ledgers.
- 3. Erect shoring tower.
- 4. Whilst suspended on the crane lifting gear, adjust the Adj. base plates to the required height.





Fig. A1.08a



Dismantling



 Risk of injury from falling components!

Ensure that all Standards are tightly connected!

- Risk of falling! Attach the lifting gear from a safe working position!
- Only attach to rosette nodes which are directly connected to the Ledgers.
- 1. Place four chains or textile lifting slings, e.g. round slings, underneath those rosette nodes complete with Ledgers, and attach to the crane lifting gear. (Fig. A1.09)
- 2. Completely spindle in the subsequent bottom Adjustable Base Plates in order to prevent overloading the components during setting down.
- 3. Using the wider side, position tower on support timbers with the crane.
- 4. Dismantle the tower beginning with the head side:
 - Remove Head Spindles.
 - Remove each height unit one after the other. First dismantle the Ledger Braces and Ledgers, and then the Standards.
 - Dismantle the base unit.
- 5. Store individual components accordingly, e.g. in pallets.



Ground plans

For transferring concentrated loads while simultaneously saving on materials, up to 2 Additional Frames (VSS) can be connected on an individual tower. The spacing of the frames to one another is freely selectable according to the requirements. (Fig. A2.01)

A maximum of 2x VSS can be connected one behind the other. Extensions over the corners are not permitted.

The assembly example shown is carried out on a 2.00×1.50 m shoring tower with 2x VSS, each 1.00 m.





PFR





Dimensions

Minimum size of an individual tower: $1.50 \times 1.50 \text{ m}$.

Grid dimensions for VSS: 0.25 / 0.50 / 0.75 / 1.00 / 1.50 / 2.00 / 2.50 / 3.00 m. Second dimension as for the respective base tower side. (Fig. A2.01a)

Arrangement of the diagonals

In the direction of the Additional Frames, only additional diagonals are required in the main tower. Transverse to the direction of the Additional Frames, brace all frame columns of the main tower and the Additional Frames with diagonals. (Fig. A2.01b)









Key:

General

Assembly correspondingly takes place as described in section A1, PERI UP Flex Shoring Tower.

Assemble the shoring tower so that the wider side (with Additional Frames) is lying flat on the ground. The tower is subsequently erected via this side.

Base Frame VSS

Components		Qty
1 2 3 3a	Adjustable Base Plate UJB Base Standard UVB 24 Ledger UH 150 Plus Ledger UH 100 Plus	4x 4x 2x 4x
6	Spindle Locking UJS	4x

(Fig. A2.02)

Standards and Ledgers VSS

Components		Qty
4	Standard UVR 200	4x
3	Ledger UH 150 Plus	2x
3a	Ledger UH 100 Plus	4x
5a	Ledger Brace UBL 150/150	2x
7	Locking Pin Ø 48/57	4x

(Fig. A2.03)



- Ledgers are secured with hammer blows only after Ledger Braces have been installed.
- As an alternative to the Locking Pin Ø 48/57, Bolt M10x70, 8.8 with Nut M10 (4x) can always be used.

Height Units VSS

Standards

Components		Qty
4	Standard UVR 200	4x
7	Locking Pin Ø 48/57	4x

(Fig. A2.04)



No additional diagonals are required in the marked fields!



PERI

Ledgers and Diagonals VSS

Components		Qt
3	Ledger UH 150	2
3b	Ledger UH 100	4
5a	Ledger Brace UBL 150/150	2

(Fig. A2.05)



Head Element with Height Adjustment VSS

→

Shown here in a vertical position due to didactical reasons!

The assembly example shows a height adjustment of 2.50 m. (Fig. A2.06)

Components		Qty
4a	Top Standard UVH 250*	4x
3a	Ledger UH 150 Plus*	4x
3b	Ledger UH 100 Plus*	8x
5a	Ledger Brace UBL 150/150*	2x
5c	Ledger Brace UBL 150/100*	2x
7	Locking Pin Ø 48/57	4x
11	Cross Forkhead TR 38-70/50	4x
12	Head Spindle Locking UJH	4x

* Dependent on the layout of the shoring tower and height.

Height adjustment takes place through the use of corresponding Top Standards (100/150/200/25 cm heights) and adjusting the spacing of the Ledgers. see Section A1 PERI UP Flex Shoring Tower, Height Adjustment.



Fig. A2.06

2.50 m

Erection with the crane



 Risk of injury from falling components!

Ensure that all Standards are tightly connected!

- Risk of falling! Ensure that removal of the lifting gear is carried out from a safe working position!
- Only attach to those rosette nodes which are directly connected to the Ledgers.

Erection

- 1. Completely spindle in the bottom Adjustable Base Plates in order to prevent overloading the components during erection.
- 2. Place four chains or textile lifting slings, e.g. round slings, underneath those rosette nodes complete with Ledgers.
- 3. Erect shoring tower.
- 4. Whilst suspended on the crane lifting gear, adjust the Adj. Base Plates to the required height.

(Fig. A2.08 + A2.08a)



Fig. A2.08a



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Dismantling



- Risk of injury from falling components!
- Ensure that all Standards are tightly connected!
- Risk of falling! Attach the lifting gear from a safe working position!
- Only attach to those rosette nodes which are directly connected to the Ledgers.
- 1. Place four chains or textile lifting slings, e.g. round slings, underneath those rosette nodes complete with Ledgers, and attach to the crane lifting gear.
- 2. Completely spindle in the subsequent bottom Adjustable Base Plates in order to prevent overloading the components during setting down.
- 3. Using the wider side, position tower on support timbers with the crane.
- 4. Dismantle the tower beginning with the head side:
 - Remove Head Spindles.
 - Remove each Height Unit one after the other. First dismantle the Ledger Braces and Ledgers, and then the Standards.
- Dismantle the base unit.
- 5. Store individual components accordingly, e.g. in pallets.

(Fig. A2.09)



PERI

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General

PERI UP Flex Shoring Tower Plus facilitates an increase in the loadbearing capacity of the standards or significantly larger spindle extensions which are required when moving slab tables under beams.

Preparation

Preparation of the Head Spindles

4 Head Spindles are required. Number of pieces per spindle.

Components		Qty
26	Head Plate for Spindle Tube	
	TR 48	1×
21	Spindle Tube TR 48	1×
22	Bolt Ø 16 x 65/86	1x
23	Cotter Pin 4/1	1x
24	Quick Jack Nut TR 48-2	1x

Assembly

- 1. Screw Quick Jack Nut (24) on the Spindle Tube (21) – using only a few turns.
- 2. Postion the Head Plate (26) with the top side facing downwards.
- 3. Place the Spindle Tube on the Head Plate and connect using Bolts (22).
- 4. Secure Bolts with Cotter Pins (23).
- → Head Spindles have now been prepared. (Fig. A3.01)



Preparation of the Adjustable Base Plates

4 Adjustable Base Plates are required. Number of pieces per spindle.

Components		Qty
20	Base Plate for Spindle Tube	
	TR 48	1x
21	Spindle Tube TR 48	1x
22	Bolt Ø 16 x 65/86	1x
23	Cotter Pin 4/1	1x
24	Quick Jack Nut TR 48-2	1x

Assembly

- 1. Screw Quick Jack Nut (24) on the Spindle Tube (21) – using only a few turns.
- 2. Position Base Plate.
- 3. Insert Spindle Tube on Base Plate (20).
- 4. Connect Base Plate and Spindle Tube using Bolts (22).
- 5. Secure Bolts by means of Cotter Pins (23).
- → Adjustable Base Plates have now been prepared. (Fig. A3.02)



2x

2x

Preparation of the Head Elements

2 Head Elements are required.

Number of pieces per Head Element. The Head Element forms the wider side of the shoring tower.

Components		Qty
	Prepared Head Spindles	2x
3	Ledger UH Plus*	1x
27	Spindle Locking UJS Plus	2x

28 Top Standard UVH 165 Plus

32 Shoring Brace UBS*

- * Length is dependent on the layout of the shoring tower.

Assembly

- 1. Place the Top Standards (28) with smaller diameters on timbers and attach Ledgers (3). Securely fix the wedges. (Fig. A3.03)
- 2. Install Shoring Braces (32) crosswise.
 - Insert the Base Connection (32.1) into the round rosette hole at a 45° angle and swivel the Shoring Brace inwards in the ledger level. (Fig. A3.04 + A3.04a)
 - Pull out the spring bolt (32.3) on the head piece, and push the head piece (32.2) laterally onto the rosette until the bolt is positioned in the round rosette hole. (Fig. A3.04 + A3.04b)
 - Release the spring bolt and allow it to engage in the rosette hole. (Fig. A3.04)
 - Turn the Head Element and mount the Shoring Brace on the other side in the same way. (Fig. A3.05)

→

Direction of the Shoring Braces "from bottom left to top right" each time.



Fig. A3.04a



- 3. Insert the prepared Head Spindles into the Top Standards and adjust to the required height.
- 4. Secure Head Spindles with the Spindle Locking.
 - For this purpose, pull out Cotter Pins (27.2).
 - Laterally turn the positioning pins (27.1) and pull out as far as the round hole.
 - Position the collar (27.3) of the Spindle Locking behind the ring (28.1) of the Top Standard.
 - Quick Jack Nut (24) must engage in the recess (27.4) of the Spindle Locking.
 - Insert positioning pin (27.1) through the hole (27.5) and secure by means of a Cotter Pin (27.2).
- → Head Element has now been prepared. (Fig. A3.06 A3.06b)



Alternatively: use the Cross Forkhead TR 48.

Preparation of the Base Element

2 Base Elements are required. Number of pieces per Base Element. The Base Element forms the wider side of the shoring tower.

Co	Components Qty		
	Prepared Adjustable Base Plate	2x	
25	Base Standard UVB 135 Plus	2x	
3	Ledger UH 200 Plus*	1x	
27	Spindle Locking UJS Plus	2x	
32	Shoring Brace UBS	2x	

Assembly

- 1. Connect Base Standards (25) to the Ledger (3).
- 2. Install Shoring Braces (32) crosswise. (Fig. A3.07)
- 3. Insert the prepared Adjustable Base Plates in the Base Standards (25) and secure with Spindle Locking (27). (Fig. A3.07a)
- → Base Element has now been prepared.



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Fig. A3.07a

Assembly

Assembly of the PERI UP Flex Shoring Tower Plus takes place horizontally, beginning with the Head Element. Assemble the shoring tower so that the wider side (with Additional Frames) is lying flat on the ground. The tower is subsequently erected via this side.

Components		Qty
34	Prepared Head Element	2x
33	Prepared Base Element	2x
3	Ledger UH 200 Plus*	х
3a	Ledger UH 150 Plus*	х
4	Standard UVR 200	*
5	Ledger Brace UBL 200/150*	х
5a	Ledger Brace UBL 150/150*	х
7	Locking Pin Ø 48/57	*x

* Dependent on the layout of the shoring tower and height.

Assembly

Position timbers minimum 6 cm thick as support on a flat working surface.

- 1. Insert Standards (4) into the prepared head section (34) and secure with Locking Pins (7).
- Connect Standards with Ledgers (3) and Ledger Braces (5) to form a wider shear frame arrangement.
- 3. Assemble additional Standards, Ledgers and Ledger Braces until the required length has been realized.
- Secure all Standards with Locking Pins and securely fix all wedges.
- 4. Position the prepared base section (33) and secure with Locking Pins (7).(Fig. A3.08)



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- 5. Mount Ledgers (3a) for the narrow side of the shoring tower on both shoring tower standards. Do not secure the wedges yet.
- 6. Place the prepared Head Element (34) of the second shear frame arrangement on the UH Ledgers and support temporarily.
- 7. Brace the Head Element by means of Shoring Braces (32). Remove support. (Fig. A3.09)



8. Beginning on the head side, attach the Standards (4) for the second shear frame arrangement to the Ledgers and secure with Cotter Pins (7). (Fig. A3.10)



- 9. Attach prepared Base Element (33) for the second shear frame arrangement and secure with Locking Pins (7). Provide the Base Element with temporary support.
 10. Brace the Base Element using Shoring Braces (32). Remove support.
 (Fig. A3.11)
- 11. Brace Standards by means of Ledgers (3) and Ledger Braces (5, 5a).
- 12. Securely fix the wedges of all
- Ledgers.
- (Fig. A3.12)



PERI



Erection with the crane



- Risk of injury from falling components!
 - Ensure that all Standards are tightly connected!
- Risk of falling! Remove the lifting gear from a safe working position!
- Only attach to those rosette nodes which are directly connected to the Ledgers.

Erection

- 1. Completely spindle in the bottom Adjustable Base Plates in order to prevent overloading the components during erection.
- 2. Place four chains or textile lifting slings, e.g. round slings, underneath those rosette nodes complete with Ledgers.
- 3. Erect shoring tower.
- 4. Whilst suspended on the crane lifting gear, adjust the Adj. Base Plates to the required height.

(Fig. A3.13 + A3.14)



Fig. A3.13



- Load-bearing capacity table of permissible loads with TR 48 / 38.

Dismantling



- Risk of injury from falling components!
 Ensure that all Standards are
- tightly connected!
- Risk of falling! Attach the lifting gear from a safe working position!
- Only attach to those rosette nodes which are directly connected to the Ledgers.

Dismantling

- 1. Place four chains or textile lifting slings, e.g. round slings, underneath those rosette nodes complete with Ledgers, and attach to the crane lifting gear.
- 2. Completely spindle in the subsequent bottom Adjustable Base Plates in order to prevent overloading the components during setting down.
- 3. Using the wider side, position tower on support timbers with the crane.
- 4. Dismantle the tower beginning with the topmost frame:
 - Remove the top Base Element and dismantle it.
 - Remove each height unit one after the other. First dismantle the Ledger Braces and topmost Ledgers, and then the Standards.
 - Remove vertically positioned Ledgers.
 - Dismantle the bottom scaffold frame from the base side.
- 5. Store individual components accordingly, e.g. in pallets.

(Fig. A3.15)



A4 Support

Supporting individual towers

- To safeguard against falling over or horizontal movement, temporary support may be necessary during the installation process.
- Mount 3 Push-Pull Props as assembly aids.
- For high shoring towers, additional higher-positioned holders could be required.
- Alternatively, a corresponding holder on sufficiently load-bearing components already installed is possible.

Components		Qty
40	Push-Pull Prop RS	3x
41 42	Brace Connector HDR Base Plate RS	3x 3x
43	Anchor Bolt PERI 14/20 x 130	Зx

Take into consideration the Data Sheet for Anchor Bolt PERI 14/20 x 130.

Preparation

Remove Cotter Pins (41.2) and Bolts (41.1) from the Brace Connectors (41).

Assembly

- 1. Secure coupling (41.3) of the Brace Connector (41) to the Standard of the shoring tower, and align. (Fig. A4.01a)
- Insert lug (40.1) on the Push-Pull Prop (40) between the lugs of the Brace Connector.
- 3. Fix Push-Pull Prop with Bolts (41.1) and Cotter Pins (41.2) to the Brace Connector. (Fig. A4.01a)
- 4. Fix Base Plate (42) to the ground using Anchor Bolts (43).Inclination angle of the Push-Pull Prop to the ground approx. 60°. (Fig. A4.01b)
- 5. Fix Push-Pull Prop (40) to the Base Plate (42) using Bolts (42.1) and Cotter Pins (42.2). (Fig. A4.01b)





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Fig. A4.01b

A4 Support



Bracing sets of shoring towers



For providing stability, mount Push-Pull Props and Ledgers.

Components

- 3 Ledger UH Plus
- 40 Push-Pull Prop RS
- 41 Brace Connector HDR
- 42 Base Plate RS
- 43 Anchor Bolt PERI 14/20 x 130

Number of pieces according to assembly instructions of the contractor.

Assembly

- Secure first shoring tower against tipping, see Supporting individual towers.
- Connect further shoring towers using Ledgers (3) and Push-Pull Props.
 (Fig. A5.02)

Alternatively, the shoring towers can also be secured against falling or horizontal movement during assembly operations using existing structural parts, e.g. walls.



B1 System supplementation

Tower with Section Spindles

Section Spindles are used to further increase the load-bearing capacity of the PERI UP Flex Shoring Tower. The spindle extension of the Head Spindles and Adjustable Base Plates can be minimized in each case whereby rough height adjustment takes place via the Section Spindles. Fine adjustment takes place using the Head Spindles and Adjustable Base Plates.

Spindle extensions

Adj. Base Plate: max. 250 mm Head Spindle: max. 200 mm



Application conditions

See Section Tables PERI UP Flex Shoring Tower with Spindle Section

Assembly

- 1. Assemble base unit as described in Section A1 PERI UP Flex Shoring Tower.
- 2. Position Top Standards (4a) on the Base Standards.
- 3. Connect the Top Standards with Ledgers (3).
- 4. Install Ledger Braces (5).
- Place the Section Spindles (13) with Quick Jack Nuts on the Top Standards (4a) below, adjust the height and secure by means of Spindle Lockings (6).

(Fig. B1.01)

- 6. Install Base Standards (2) and secure by means of Locking Pins (7).
- 7. Insert Standards (4) in the Base Standards and brace using additional Ledgers (3a).

(Fig.	B1.01a)	
-------	---------	--

Components*		Qty
2	Base Standard UVB 24	4x
3	Ledger UH	8x
4a	Top Standard UVH 150	4x
6	Spindle Locking UJS	4x
7	Locking Pin Ø 48/57	4x
13	Section Spindle UJK 38-110	4x

*in addition to Section A1 PERI UP Flex Shoring Tower.







Fig. B1.01a
7. Complete assembly of the shoring tower as described in Section A1.Fig. B1.01b



Additional Frames with Section Spindles

Assembly is carried out in the same way as for the shoring tower with Section Spindles. (Fig. B1.02)



Height extensions or reductions

Extending or reducing the height of the shoring tower is always useful if different supporting heights which are positioned one after the other are required. Completely dismantling and then re-assembling the tower is thus not necessary.

Shown here is the joining together of two individual towers.

→

Application conditions

See Section Tables PERI UP Flex Shoring Tower with Spindle Section.

Co	Qty	
13	Section Spindle UJK 38-110	4x

Assembly

- 1. Remove the Spindle Locking UJS and Head Spindle Locking UJH.
- 2. Remove the Head Spindles and Adjustable Base Plates (1, 11).
- 3. Place the Section Spindles (13) on the Top Standards (4a) and adjust the height.
- 4. Remove the Locking Pins (7) on the top tower.
- 5. Attach the second shoring tower unit on the Section Spindles.
- 6. Secure top Section Spindles (13) using Locking Pins (7). Secure bottom Section Spindle using Head Spindle Locking (12).

Fig. B1.03

For height reductions (the tower is divided into 2 units), the 4 Section Spindles are replaced:

- on the top tower unit through 4 Adjustable Base Plates,
- on the bottom tower unit through 4 Head Spindles.



Fig. B1.03

4x

4x

Transportation Wheel UEW

The Transportation Wheel UEW can be used for the PERI UP Flex Shoring Tower and PERI UP Flex Shoring Tower with VSS.

Components	Qty

16 Transportation Wheel UEW17 Connection Transportation

17 Connection Transportation Wheel UER



- 1. Completely insert the adjusting tube (16.1) of the Transportation Wheel UEW (16) into the guide tube (17.1) of the Connection Transportation Wheel UER (17).
- 2. Secure the adjusting tube with positioning pins (17.6).



Completely retract the Transportation Wheel!

Assembly

- 1. Insert Transportation Wheels with Spigots (17.2) from below into the rosettes. Insert the spigot first in the bottom rosette and then in the top rosette. Firmly hold the Transportation Wheels. (Fig. B1.04)
- 2. Insert locking lever (17.3) and turn downwards. Roll pin (17.4) must be fully engaged in the groove.

(Fig. B1.04a - B1.04b)









Fig. B1.04



17.3 17.3

Fig. B1.04a

Fig. B1.04b

Moving the tower

- 1. Set down the Transportation Wheels UEW (16) completely on the ground, raise to the next pegging hole and peg with positioning pin (17.6). Secure positioning pin with cotter pins (17.7). (Fig. B1.04c - B1.04d)
- Spindle in the Adjustable Base Plates of the shoring tower evenly until the dead weight of the shoring tower has been transferred to the Transportation Wheels and sufficient ground clearance has been achieved.
- 3. Horizontally move the shoring tower.
- 4. After the moving procedure, evenly spindle out the Adjustable Base Plates of the shoring tower until the Transportation Wheels are free of any load.



Do not load the Transportation Wheels!

After the moving procedure, spindle out the Adjustable Base Plates again until the Transportation Wheels are completely free of any load.



The stability of the shoring tower against overturning must be guaranteed. Ratio h/w < 3/1 or in accordance with a separate verification.



Use positioning pins in the top or bottom hole depending on which hole is reached first.

Through the given hole pattern, the Transportation Wheel can be pegged in half-steps.

Dismantling the Transportation Wheels

The Transportation Wheels must be completely free of any load!

- 1. Completely retract the Transportation Wheel and peg.
- 2. Hold the moving unit firmly, turn up the locking lever and pull out.
- 3. Lower the moving unit until both bolts are out of the rosettes.
- → The Transportation Wheel has now been dismantled.



Fig. B1.04c



Fig. B1.04d



Fig. B1.04e

Trolley with Winch

The Trolley with Winch can be used for the PERI UP Flex Shoring Tower and PERI UP Flex Shoring Tower with VSS as well as PERI UP Flex Shoring Tower Plus.

Co	Qty	
18	PERI UP Trolley	2x
19	Trolley with Winch	2x

Trolley with Winch on PERI UP Flex Shoring Tower

Assembly

- 1. Mount the top connectors of the Trolley with Winch at the respective middle (18.1) and bottom (18.2) holes. The top hole (18.3) remains free. (Fig. B1.05)
- 2. For improved installation, the Ledger Braces of the shoring tower should be moved inside.
- 3. Move the Trolley with Winch against the shoring tower and raise the lifting device with the winch. Make sure that
 - the bottom connector (18.5) engages the rosette,
 - whilst the top connector (18.6) is positioned under the Ledger UH.
 - → Lifting device secures automatically by means of a pivot lock.
- Raise the lifting devices evenly until the dead weight of the shoring tower has been transferred to the Trolley with Winch and sufficient ground clearance has been achieved.
 (Fig. B1.05a – B1.05c)







The stability of the shoring tower against overturning must be guaranteed. Ratio h/w < 3/1 or in accordance with a separate verification.

→

- Follow the Instructions for Use for the Trolley and Winch!
- Raise and lower the tower evenly.

Trolley with Winch on PERI UP Flex Shoring Tower with Additional Frame

Assembly takes place in the same way as for the PERI UP Flex Shoring Tower. For VSS with 25 cm, the following applies:

-

- For VSS with 25 cm spacing to the next frame, remove the bottom Ledger of the second frame.
- Check the clearance to the Ledger Braces (5)! (Fig. B1.06 – B1.07)
- After the moving procedure has finished, re-install the Ledger!

Assembly

See Section Trolley with Winch on PERI UP Flex Shoring Tower.



Fig. B1.07

Trolley with Winch on PERI UP Flex Shoring Tower Plus

Assembly

1. Mount the top connector of the Trolley with Winch at the respective top (18.3) and middle (18.1) holes. The bottom hole (18.2) remains free. (Fig. B1.08 – B1.08c)

Additional assembly: see Section Trolley with Winch on PERI UP Flex Shoring Tower.





Fig. B1.08a

Inclined erection areas, inclined slab decks

The PERI UP Flex Shoring Tower can be adjusted to accommodate inclined erection areas or inclined slab decks.

The longer side of the shoring tower must point in the direction of the inclination.



Risk of collapse!

- All occurring horizontal forces must be safely transferred.
- Separate static proof is required for use on inclined erection areas or under inclined slabs.

⇒

The pegging holes to be used on the Connector MP/SRU are determined by the angle of inclination.

Components

- 53 Spindle Head SRU
- 54 Connector MP/SRU
- **55** Fitting Pin Ø 21*120
- **56** Cotter Pin 6/1
- 57 Swivel Coupling DK 38/48
- 58 Swivel Coupling DK 48/48

Assembly on inclined erection areas

- Align the Steel Waler SRU to accommodate the slope. Secure the Steel waler to prevent slipping, e.g. by anchoring into the ground.
- 2. Mount Connector MP/SRU (54) on the Steel Waler SRU using Fitting Pins (55). Secure Fitting Pins with Cotter Pins (56).
- 3. As Adjustable Base Plates, mount Spindle Head SRU (53) to the Connector MP/SRU using Fitting Pins (55) and Cotter Pins (56).
- Insert Spindle Head SRU (53) in the Base Standard (2) and secure by means of the Spindle Locking UJS (6).

- 5. Set up Standards (4) which have been adapted to accommodate the inclination and brace with Ledgers (3) at the first level of rosettes.
- 6. Horizontally align the assembly.
- Diagonally brace the longer Standards with scaffold tubes between the Spindle Head SRU and Standard UVR. For this, mount a Swivel Coupling DK 38/48 (57) on the Spindle Head, as close as possible to the Connector MP/SRU. Mount a Swivel Coupling DK 48/48 (58) on the Standard directly above the first rosette.
- 8. Erection of the shoring tower continues in accordance with Section A1.
 (Fig. B1.09 B1.09a)



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Assembly under inclined slab decks

- 1. Assemble the shoring tower up to the head section according to Section A1.
- 2. Set up Top Standards (4a) which have been adapted to accommodate the inclination and brace with Ledgers (3) at the top level of rosettes.
- 3. As Head Spindles, insert Spindle Head SRU (53) in the Top Standards and secure using the Spindle Locking UJS (6).
- Diagonally brace the longer Standards with scaffold tubes between the Spindle Head SRU and Standard UVR (4). For this, mount a Swivel Coupling DK 38/48 (57) on the Spindle Head, as close as possible to the Connector MP/SRU. Mount a Swivel Coupling DK 48/48 (58) on the Standard directly under the first rosette.
- 5. Mount Connector MP/SRU (54) on the Spindle Head SRU using Fitting Pins (55) and Cotter Pins (56).
- 6. Mount Connector MP/SRU on the Steel Waler SRU using Fitting Pins. Secure Fitting Pins with Cotter Pins (56).
- Safely transfer horizontal loads as directly as possible, e.g. via the bracing on the Steel Waler SRU.

(Fig. B1.10 - B1.10a)



Fig. B1.10

C Storage and transportation

PFRI

60

- Instructions for Use for PERI pallets and stacking devices must be followed at all times!
- Pallets and stacked items are to be protected against the effects of the weather!
- Always attach the 4-sling lifting gear using the four load-bearing points!

Transport

PERI pallets and stacking devices are suitable for lifting by crane or forklift. They can also be moved with the PERI Pallet Lifting Trolley.

All pallets and stacking devices can be lifted using both the longitudinal and front sides.

The illustrations show examples.

Pallet RP-2 80 x 120 (Fig. C.01) Pallet RP-2 80 x 150 (Fig. C.02)

Load-bearing capacity = 1.5 t. Crane sling angle $\leq 15^{\circ}$ from the vertical. Stacking height: 4 pallets on top of each other.

Storage examples

Pallet RP-2 80 x 120

- 3 Ledger UH Plus 108
- 5c Ledger Brace UBL 150/100 225
- 25 Base Standard UVB 135 Plus 48 48
- 28 Top Standard UVH 165 Plus

(Fig. C.03)

Pallet RP-2 80 x 150

4	Standard UVR 200	56
10	H-Braces UBH Flex 200/150	104
3a	Ledger UH Plus 200	48
5b	Ledger Brace UBL 200/100	48

(Fig. C.04)







Fig. C.02a



Fig. C.03

Fig. C.04

C Storage and transportation

- Always attach the 4-sling lifting gear using the four load-bearing points!
- Before transporting, close and lock the flap and, if necessary, secure the cover!

Pallet Cage 80 x 120 (Fig. C.05 + C.05a)

Load-bearing capacity = 1.5 t. Crane sling angle \leq 15°. Stacking height: 3 pallet cages on top of each other.

Storage examples

Pallet RP-2 80 x 120

Cross Forkhead TR 38-70/50 40
 Adjustable Base Plate

200

UJB 38-50/30

(Fig. C.06)



For better loading and unloading, the flap (52) can be pivoted downwards.

For securing the load against theft, the crate pallet can be optionally fitted with a cover.









Fig. C.06

PERI UP Rosett Shoring Tower Restrained at the top, $h \le 21.89$ m

Application conditions

- Restrained at the top
- Without additional ledgers in top and bottom sections
- Horizontal cross strut min. every 9 m
- Head Spindle or Cross Forkhead
- $h \le 21.89 m$





≤ 300

350 -VI

	Perm.	leg l	oad											
			F _V [kN]											
					Ground plan [m]									
	h [m]	15	1.	25 25	3.0	2.0	2.0 x	3.0	2.	30 2X	3.0 x			
5	լայ	1.5	2.0	2.5	3.0	2.0	2.5	3.0	2.5	3.0	3.0			
q = 0.	1.83 -8.39	35.7				-	34.4							
	8.33 - 8.89	33.9	33.1	32.4	31.6	33.7	33.1	32.4	33.8	33.2	34.0			
	8.83 - 9.39	33.6	32.8	32.0	31.2	33.4	32.7	32.0	33.3	32.8	33.5			
	9.33 - 9.89	33.2	32.4	31.6	30.7	33.0	32.2	31.5	32.9	32.3	33.1			
	9.83 - 10.39	32.9	32.0	31.1	30.3	32.6	31.8	31.0	32.5	31.8	32.6			
	10.33 - 10.89	32.6	31.7	30.7	29.8	32.2	31.4	30.6	32.1	31.3	32.1			
	10.83 - 11.39	32.3	31.3	30.3	29.3	31.9	31.0	30.1	31.6	30.9	31.6			
	11.33 - 11.89	32.0	30.9	29.9	28.9	31.5	30.6	29.6	31.2	30.4	31.1			
	11.83 - 12.39	31.6	30.6	29.5	28.4	31.1	30.1	29.2	30.8	29.9	30.7			
	12.33 - 12.89	31.3	30.2	29.1	28.0	30.7	29.7	28.7	30.4	29.4	30.2			
	12.83 - 13.39	31.0	29.8	28.7	27.5	30.4	29.3	28.2	29.9	29.0	29.7			
0.8	13.33 - 13.89	30.7	29.5	28.3	27.0	30.0	28.9	27.8	29.5	28.5	29.2			
a =	13.83 - 14.39	30.4	29.1	27.8	26.6	29.6	28.5	27.3	29.1	28.0	28.7			
l/m ² .	14.33 - 14.89	30.0	28.7	27.4	26.1	29.2	28.0	26.8	28.7	27.5	28.3			
e [kN	14.83 - 15.39	29.7	28.4	27.0	25.7	28.9	27.6	26.4	28.2	27.1	27.8			
ssure	15.33 - 15.89	29.4	28.0	26.6	25.2	28.5	27.2	25.9	27.8	26.6	27.3			
: pre	15.83 - 16.39	29.2												
amic	16.33 - 16.89	28.9												
Dyn	16.83 - 17.39	28.7			2				<i>v</i>					
	17.33 - 17.89	28.4												
	17.83 - 18.39	28.2			2				A					
	18.33 - 18.89	27.9		For th	nis ar	ea, pl	ease	refer	to Ap	open-				
	18.83 - 19.39	27.7		dices	T1 + ⁻	T2 of	the t	ype t	est.	-				
	19.33 - 19.89	27.4												
	19.83 - 20.39	27.2												
	20.33 - 20.89	27.0												
	20.83 - 21.39	26.7												
	21.33 - 21.89	26.5												

	F _V [kN]
	all ground plans
	38.0
	37.9
	37.8
	37.7
	37.6
	37.5
	37.4
	37.3
	37.2
	37.1
	37.0
0 =	36.9
ld, q	36.8
t win	36.7
hout	36.6
vit	36.5
	36.5
	36.4
	36.4
	36.4
	36.3
	36.3
	36.3
	36.2
	36.2
	36.2
	36.1
	36.1

PERI UP Rosett Shoring Tower Restrained at the top, $h \le 21.89$ m, with additional ledger

Application conditions

- Restrained at the top
- With additional ledgers in top and bottom sections
- Horizontal cross strut min. every 9 m
- Head Spindle or Cross Forkhead
- h ≤ 21.89 m



Perm. leg load

						F _V [kN]				
					Gr	ound	plan [r	n]			
	h		1.5	5 x			2.0 x		2.5	5 x	3.0 x
	[m]	1.5	2.0	2.5	3.0	2.0	2.5	3.0	2.5	3.0	3.0
q = 0.5	1.83 -8.39	39.9					38.9				
	8.33 - 8.89	38.5	37.7	37.0	36.2	37.9	37.3	36.6	37.6	37.1	37.5
	8.83 - 9.39	38.1	37.3	36.5	35.7	37.5	36.9	36.2	37.2	36.6	37.0
	9.33 - 9.89	37.8	36.9	36.1	35.3	37.2	36.4	35.7	36.8	36.2	36.6
	9.83 - 10.39	37.4	36.6	35.7	34.8	36.8	36.0	35.2	36.4	35.7	36.2
	10.33 - 10.89	37.1	36.2	35.2	34.3	36.4	35.6	34.8	36.0	35.3	35.7
	10.83 - 11.39	36.8	35.8	34.8	33.8	36.0	35.2	34.3	35.6	34.8	35.3
	11.33 - 11.89	36.4	35.4	34.4	33.3	35.6	34.8	33.8	35.2	34.4	34.9
	11.83 - 12.39	36.1	35.0	33.9	32.9	35.3	34.3	33.4	34.7	33.9	34.4
	12.33 - 12.89	35.7	34.6	33.5	32.4	34.9	33.9	32.9	34.3	33.5	34.0
	12.83 - 13.39	35.4	34.2	33.1	31.9	34.5	33.5	32.4	33.9	33.0	33.6
.0 8	13.33 - 13.89	35.1	33.8	32.6	31.4	34.1	33.1	32.0	33.5	32.6	33.1
5 5	13.83 - 14.39	34.7	33.5	32.2	30.9	33.7	32.7	31.5	33.1	32.1	32.7
ľ.	14.33 - 14.89	34.4	33.1	31.8	30.5	33.4	32.2	31.0	32.7	31.7	32.3
ē	14.83 - 15.39	34.0	32.7	31.3	30.0	33.0	31.8	30.6	32.3	31.2	31.8
insse	15.33 - 15.89	33.7	32.3	30.9	29.5	32.6	31.4	30.1	31.9	30.8	31.4
2 d c b	15.83 - 16.39	33.4									
a	16.33 - 16.89	33.2									
2	16.83 - 17.39	32.9									
	17.33 - 17.89	32.6									
	17.83 - 18.39	32.4									
	18.33 - 18.89	32.1	F	or th	is are	ea, pl	ease	refer	to Ap	pen-	
	18.83 - 19.39	31.8	c	lices	T3 + 1	4 of	the ty	ype to	est.		
	19.33 - 19.89	31.6									
	19.83 - 20.39	31.3									
	20.33 - 20.89	31.0									
	20.83 - 21.39	30.8									
	21.33 - 21.89	30.5									



≤ 350

Adj. Base Plate UJB 38 – 50 / 30

PERI UP Rosett Shoring Tower Restrained at the top, h ≤ 22.34 m, with Spindle Section

Application conditions

- Restrained at the top
- With additional ledgers in top and bottom sections and above the Spindle Section
- Horizontal cross strut min. every 9 m and directly below the Spindle Section
- Head Spindle or Cross Forkhead
- h ≤ 22.34 m

Ground plan





Perm. leg load F_V [kN] Ground plan [m] 1.5 x 2.0 x 2.5 x 3.0 x h 1.5 2.0 2.5 3.0 2.0 2.5 3.0 2.5 3.0 3.0 [m] q = 0.5 2.64 - 8.34 44 9 43.5 8.14 8.84 43.4 42.9 42.4 41.9 42.8 42.2 41.7 42.2 41.6 41.5 8.64 43.2 427 42 1 416 42 6 42 0 41.5 41.9 413 41.3 9.34 9.14 - 9.84 41.0 43.0 42.4 41.9 413 42.4 41.7 41.2 41.7 411 9.64 10.34 42.8 42.2 41.6 41.0 42.1 41.5 40.9 41.4 40.8 40.7 10.14 10.84 42.6 42.0 41.3 40.7 41.9 41.2 40.6 41.2 40.5 40.5 10.64 11.34 42.3 41.7 41.1 40.4 41.7 41.0 40.3 40.9 40.3 40.2 11.14 11.84 42.1 41.5 40.8 40.1 41.5 40.7 40.0 40.7 40.0 40.0 11.64 12.34 41.9 41.3 39.8 41.2 40.5 39.7 39.7 39.7 40.5 40.4 12.14 41.7 41.0 40.3 39.5 41.0 40.2 39.4 40.2 39.5 39.4 12.84 12.64 13.34 415 40.8 40.0 39.2 40.8 40.0 39.2 39.9 39.2 39.2 13.14 13.84 41.3 40.6 39.7 38.9 40.6 39.7 38.9 39.7 38.9 38.9 0 = b Dynamic pressure [kN/m²] q = 0.8 13.64 14.34 41.1 40.3 39.5 38.6 40.3 39.5 38.6 39.4 38.7 38.7 without wind, 14.14 40.9 38.3 40.1 38.3 40.1 39.2 39.2 39.2 38.4 38.4 14.84 14.64 15.34 40.7 39.8 38.9 38.0 38.9 38.0 38.9 38.1 39.8 38.1 15.14 15.84 40.4 39.5 38.6 37.7 39.6 38.6 37.7 38.6 37.8 37.8 15.64 16.34 40.2 39.3 38.3 37.4 39.3 38.3 37.4 38.3 37.5 37.5 16.14 16.84 39.9 39.0 38.0 37.1 39.0 38.0 37.1 38.0 37.2 37.2 16.64 36.8 39.7 38 7 37.8 36.7 38.8 378 36.7 378 36.8 - 17.34 17.14 17.84 39.4 38.4 37.5 36.4 38.5 375 36.4 37.5 36.5 36.5 17.64 39.2 38.2 37.2 36.1 38.2 37.2 36.1 37.2 36.2 36.2 18.34 18.14 18.84 38.9 37.9 36.9 35.8 38.0 36.9 35.8 36.9 35.9 35.9 18.64 19.34 38.7 37.6 36.6 35.5 37.7 36.6 35.5 36.6 35.6 35.6 19.14 19.84 38.5 37.4 36.3 35.2 37.4 36.3 35.2 36.3 35.3 35.3 19.64 34.8 38.2 37.1 36.0 37.2 36.0 34.9 36.0 35.0 35.0 20.34 20.14 20.84 35.8 38.0 36.9 35.7 34.5 36.9 35.8 34.6 34.7 34.7 20.64 21.34 37.8 36.6 35.4 34 2 36.6 35.5 34 2 35.5 34.3 34.3 21.14 21.84 37.5 36.4 35.1 33.8 36.4 35.2 33.9 35.2 34.0 34.0 21.64 37.3 33.5 36.1 34.9 33.7 33.7 36.1 34.8 33.6 34.9 22.34

F_V [kN]

all ground

plans

46.3

46.3

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46.0

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45.8

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45.6

45.5

45.4

45.3

45.2

45.1

PERI UP Rosett Shoring Tower Free standing, 1.5 m x 1.5 m, h ≤ 8.39 m, with additional ledger



Application conditions

- Free standing
- With wind
- With additional ledgers in top and bottom sections
- Head Spindle or Cross Forkhead
- height $h \le 8.39 \text{ m}$

Perm. leg load







Height adjustment*

PERI UP Flex Shoring Tower

Instructions for Assembly and Use - Standard Configuration

.

1.50

1.50

1.50

PERI UP Flex Shoring Tower Plus Permissible loads with TR 48 / TR 48



Load-bearing capacity per leg for shoring towers with Spindles TR 48 with a maximum supporting height of up to 16.26 m (restrained at the top).

Ground plan 150 x 150 cm

Height of tower [m]	Spindle e: [cr	xtensions m]	Permissible loads [kN / leg]		
	Base L _{Sp,F}	Head L _{Sp,K}	without wind (0.0 kN/m²)	with wind (0.5 kN/m²)	
15.15	35	30	52.37	50.05	
10.65	35	30	53.99	51.99	
7.65	35	30	56.43	55.03	
15.58	20	88	30.45	24.40	
11.08	20	88	37.05	32.73	
8.08	20	88	44.47	42.04	
15.58	88	20	43.14	31.02	
11.08	88	20	48.07	41.53	
8.08	88	20	50.36	48.76	
15.78	88	40	40.32	27.85	
11.28	88	40	42.68	36.31	
8.28	88	40	42.73	38.27	
16.26	88	88	25.50	16.98	
11.76	88	88	25.96	19.72	
8.76	88	88	26.27	21.71	

Ground plan 150 x 250 cm

Height of tower [m]	Spindle e [ci	xtensions m]	Permissible loads [kN / leg]		
	Base L _{Sp,F}	Head L _{Sp,K}	without wind (0.0 kN/m²)	with wind (0.5 kN/m²)	
15.15	35	30	52.37	48.02	
10.65	35	30	53.99	50.97	
7.65	35	30	56.43	54.13	
15.58	20	88	30.45	22.24	
11.08	20	88	37.05	31.07	
8.08	20	88	44.47	41.16	
15.58	88	20	43.14	26.08	
11.08	88	20	48.07	38.39	
8.08	88	20	50.36	47.48	
15.78	88	40	40.32	23.07	
11.28	88	40	42.68	33.25	
8.28	88	40	42.73	36.73	
16.26	88	88	25.50	13.64	
11.76	88	88	25.96	17.55	
8.76	88	88	26.27	19.97	



The values given also apply to lower system heights.

Length of the standards, ledgers and diagonals in accordance with geometrical requirements.

The standard joints must be at the same height of the ledgers.

PERI UP Flex Shoring Tower Plus Permissible loads with TR 48 / TR 48

Load-bearing capacity per leg for shoring towers with Spindles TR 48 with a maximum supporting height of up to 16.26 m (restrained at the top).

Ground plan 100 x 150 cm

Height of tower [m]	Spindle e [ci	xtensions m]	Permiss [kN	ible loads / leg]
	Base L _{Sp,F}	Head L _{Sp,K}	without wind (0.0 kN/m ²)	with wind (0.5 kN/m²)
15.15	35	30	50.72	45.55
10.65	35	30	51.20	47.75
7.65	35	30	55.04	52.88
15.58	20	88	26.23	20.29
11.08	20	88	30.31	25.98
8.08	20	88	36.24	33.04
15.58	88	20	38.49	25.28
11.08	88	20	42.74	34.77
8.08	88	20	47.14	42.56
15.78	88	40	37.40	24.00
11.28	88	40	40.13	31.77
8.28	88	40	42.29	37.57
16.26	88	88	24.30	16.50
11.76	88	88	25.45	19.19
8.76	88	88	25.94	21.30

Ground plan 100 x 250 cm

Height of tower [m]	Spindle e [ci	xtensions m]	Permiss [kN	ible loads / leg]
	Base L _{Sp,F}	Head L _{Sp,K}	without wind (0.0 kN/m²)	with wind (0.5 kN/m²)
15.15	35	30	50.72	43.39
10.65	35	30	51.20	46.50
7.65	35	30	55.04	51.80
15.58	20	88	26.23	18.00
11.08	20	88	30.31	24.27
8.08	20	88	36.24	31.73
15.58	88	20	38.49	20.61
11.08	88	20	42.74	31.56
8.08	88	20	47.14	40.37
15.78	88	40	37.40	19.43
11.28	88	40	40.13	28.43
8.28	88	40	42.29	35.56
16.26	88	88	24.30	13.00
11.76	88	88	25.45	17.02
8.76	88	88	25.94	19.62



The values given also apply to lower system heights.

Length of the standards, ledgers and diagonals in accordance with geometrical requirements.

The standard joints must be at the same height of the ledgers.

PERI UP Flex Shoring Tower Plus Permissible loads with TR 48 / TR 48

Load-bearing capacity per leg for shoring towers with Spindle TR 48 at Base or Head with a maximum supporting height of up to 15.58 m (restrained at the top).

Ground plan 150 x 150 cm

Height of tower [m]	Spindle e [c	xtensions m]	Permissible loads [kN / leg]		
	Base LSp,F	Head LSp,K	without wind (0.0 kN/m2)	with wind (0.5 kN/m2)	
15,58	88	20	42,47	28,76	
11,08	88	20	46,02	39,19	
8,08	88	20	46,35	41,95	

Height of tower [m]	Spindle extensions [cm]		Permissible loads [kN / leg]	
	Base LSp,F	Head LSp,K	without wind (0.0 kN/m2)	with wind (0.5 kN/m2)
15,58	88	20	42,47	26,60
11,08	88	20	46,02	37,98
8,08	88	20	46,35	41,46

Ground plan 150 x 250 cm

Height of tower [m]	Spindle extensions [cm]		Permissible loads [kN / leg]	
	Base LSp,F	Head LSp,K	without wind (0.0 kN/m2)	with wind (0.5 kN/m2)
15,58	88	20	42,47	24,43
11,08	88	20	46,02	36,47
8,08	88	20	46,35	40,51

Ground plan 100 x 150 cm

Height of tower [m]	Spindle extensions [cm]		Permissible loads [kN / leg]	
	Base LSp,F	Head LSp,K	without wind (0.0 kN/m2)	with wind (0.5 kN/m2)
15,58	88	20	37,60	23,72
11,08	88	20	41,27	32,83
8,08	88	20	44,90	39,40



The values given also apply to lower system heights.

Length of the standards, ledgers and diagonals in accordance with geometrical requirements.

The standard joints must be at the same height of the ledgers.

PERI



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0 0,0



Cross Forkhead TR 38-70/50

Tilt-resistant head spindle for holding one or two GT 24 or VT 20 Girders.

Note

With captive Quick Jack Nut.





Accessories					
028590	0.568	Tension Strap 16-25, galv.			









116081

7.040

Head Spindle-2 TR 38-70/50 Maximum inclination of the head plate on all sides 4.4°.

Note

With locking device and captive Quick Jack Nut.





 Accessories

 028590
 0.568

 018300
 0.564

 Cross Strap, galv.



PFR

Accessories				
104031	0.462	Fitting Pin Ø 21 x 120		
018060	0.030	Cotter Pin 4/1, galv.		

	Meight ka			FER
111072	6.300	Section Spindle UJK 38-110/41 For erection of shoring with tower units.	Note With captive Quick Jack Nut.	
			300 min 65 max 413 1103	
100863	1.020	Spindle Locking UJS Secures the Adjustable Base Plates and Section Spindles Ø 38 mm in the leg while moving.	Technical Data Permissible load 1.5 kN.	
			SW 19	
109563	1.460	Head Spindle Locking UJH Connects Head Spindle and Section Spindle with Ledger UH when moving.	Complete with 1 pc. 018060 Cotter Pin 4/1, galv. Technical Data Permissible load 2.1 kN.	
100014	2.470	Base Standard UVB 24 For assembly directly on the base spindle.		

P	E	R	
			_



Base Standard UVB 49 For assembly directly on the base spindle.

Reduces necessary spindle extension lengths through distance between rosettes of 25 cm.





		Standards UVR	L	
102859	3.080	Standard UVR 50	500	
101306	5.380	Standard UVR 100	1000	
102860	7.690	Standard UVR 150	1500	
100009	10.000	Standard UVR 200	2000	
100012	14.700	Standard UVR 300	3000	
100013	19.200	Standard UVR 400	4000	





Item no. Weight kg

· · · · · · · · · · · · · · · · · · ·			
	Top Standards UVH	L	
4.610	Top Standard UVH 100	1000	
6.920	Top Standard UVH 150	1500	
9.240	Top Standard UVH 200	2000	
11.500	Top Standard UVH 250	2500	
	Without spigot for supporting head spindles.		
	4.610 6.920 9.240 11.500	Top Standards UVH4.610Top Standard UVH 1006.920Top Standard UVH 1509.240Top Standard UVH 20011.500Top Standard UVH 250Without spigot for supporting head spindles.	Top Standards UVHL4.610Top Standard UVH 10010006.920Top Standard UVH 15015009.240Top Standard UVH 200200011.500Top Standard UVH 2502500Without spigot for supporting head spindles.2500



		Ledgers UH Plus
114613	1.420	Ledger UH 25 Plus
114595	2.070	Ledger UH 50 Plus
114629	2.730	Ledger UH 75 Plus
114632	4.460	Ledger UH 100 Plus
114638	5.430	Ledger UH 125 Plus
114641	4.710	Ledger UH 150 Plus
117032	5.380	Ledger UH 175 Plus
114645	6.040	Ledger UH 200 Plus
116356	6.700	Ledger UH 225 Plus
114648	7.360	Ledger UH 250 Plus
114651	8.680	Ledger UH 300 Plus



L	Х	Sticker	
204	250		
454	500		
704	750	White	
954	1000	White	
1204	1250		
1454	1500		
1704	1750		
1954	2000		
2204	2250		
2454	2500		
2954	3000		

160

Note

Longitudinelly-stamped and with coloured label for easier identification.



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	Weight kg	ltem no.
Ledgers UH		
Ledger UH 25	1.390	404780
Ledger UH 50	2.040	404779
Ledger UH 75	2.710	400017
Ledger UH 100	3.370	401159
Ledger UH 125	4.020	410347
Ledger UH 150	4.690	400021
Ledger UH 200	6.020	400023
Ledger UH 250	7.340	400025
Ledger UH 300	8.670	400027

L	Х	Sticker	
204	250		
454	500		
704	750	White	
954	1000	White	
1204	1250		
1454	1500		
1954	2000	White	
2454	2500	Red	
2954	3000	Black	

Note

Longitudinally-stamped and with coloured label for easier identification.

Ledgers UH can be replaced by Ledgers UH Plus.



X L 0 125 0 0 22 8 125 8 125

019940 2.270

Diagonal Strut ST 100, galv. Diagonals for Stacking Tower ST 100. Number required depends on the static system.



		1300		
-		1250	_	
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¢	_/			Ŧ

ltem no. Weight ka

1011110.	v voigitt kg					
		Ledger Braces UBL	L	Х	Y	Sticker
115156	2.660	Ledger Brace UBL 100/50	901	1000	500	
115513	4.640	Ledger Brace UBL 100/150	1677	1000	1500	
115157	5.810	Ledger Brace UBL 100/200	2136	1000	2000	
107867	3.790	Ledger Brace UBL 150/50	1347	1500	500	
100055	4.440	Ledger Brace UBL 150/100	1601	1500	1000	
102846	5.340	Ledger Brace UBL 150/150	1953	1500	1500	
100057	6.380	Ledger Brace UBL 150/200	2358	1500	2000	
109034	6.740	Ledger Brace UBL 175/200	2500	1750	2000	
104391	5.000	Ledger Brace UBL 200/50	1820	2000	500	
100059	5.500	Ledger Brace UBL 200/100	2016	2000	1000	
102862	6.240	Ledger Brace UBL 200/150	2305	2000	1500	
100061	7.160	Ledger Brace UBL 200/200	2658	2000	2000	White
130282	5.620	Ledger Brace UBL 225/50	2062	2250	500	
130283	6.070	Ledger Brace UBL 225/100	2236	2250	1000	
117689	7.580	Ledger Brace UBL 225/200	2829	2250	2000	
100063	6.640	Ledger Brace UBL 250/100	2462	2500	1000	
102861	7.260	Ledger Brace UBL 250/150	2705	2500	1500	
100065	8.050	Ledger Brace UBL 250/200	3010	2500	2000	Red
104762	7.490	Ledger Brace UBL 300/50	2795	3000	500	
100067	7.830	Ledger Brace UBL 300/100	2926	3000	1000	
104766	8.360	Ledger Brace UBL 300/150	3133	3000	1500	
100069	9.050	Ledger Brace UBL 300/200	3400	3000	2000	Black
		Mounted in the holes of the ledger.	Note			

Note

Longitudinally-stamped and with coloured label for easier identification.

UBL 150/250 identical to UBL 300/50,

UBL 225/150 identical to UBL 175/200,

UBL 250/50 identical to UBL 200/150.

UBL 75/200 identical to UBL 225/50. UBL 100/100 identical to Diagonal Strut ST 100

(Item no. 019940).





Item no.	Weight kg					
		Horizontal Braces UBH	L	Х	Y	
400042	7.350	Horizontal Brace UBH 150/150	2042	1500	1500	
407815	8.700	Horizontal Brace UBH 200/150	2422	2000	1500	
400047	9.870	Horizontal Brace UBH 200/200	2749	2000	2000	
406931	10.200	Horizontal Brace UBH 250/150	2838	2500	1500	
404356	11.300	Horizontal Brace UBH 250/200	3123	2500	2000	
400049	12.400	Horizontal Brace UBH 250/250	3456	2500	2500	
400051	11.800	Horizontal Brace UBH 300/150	3279	3000	1500	
423483	12.700	Horizontal Brace UBH 300/200	3528	3000	2000	
402617	13.800	Horizontal Brace UBH 300/250	3826	3000	2500	
400053	15.000	Horizontal Brace UBH 300/300	4164	3000	3000	





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		H-Braces UBH Flex	L	Х	Y	
114818	4.580	H-Brace UBH Flex 100/100	1335	1000	1000	
114821	5.720	H-Brace UBH Flex 150/100	1725	1500	1000	
114912	6.650	H-Brace UBH Flex 150/150	2042	1500	1500	
114820	7.000	H-Brace UBH Flex 200/100	2161	2000	1000	
114916	8.730	H-Brace UBH Flex 200/200	2749	2000	2000	
114819	8.350	H-Brace UBH Flex 250/100	2620	2500	1000	
114996	8.640	H-Brace UBH Flex 250/125	2720	2500	1250	
124101	8.990	H-Brace UBH Flex 250/150	2838	2500	1500	
114920	9.830	H-Brace UBH Flex 250/200	3123	2500	2000	
114928	10.800	H-Brace UBH Flex 250/250	3456	2500	2500	
114892	9.730	H-Brace UBH Flex 300/100	3092	3000	1000	
114924	11.000	H-Brace UBH Flex 300/200	3528	3000	2000	
114932	11.900	H-Brace UBH Flex 300/250	3826	3000	2500	
114936	12.900	H-Brace UBH Flex 300/300	4163	3000	3000	
	For horizontal bracing of towers. Also useable					

underneath deckings UDI and UDG.



Item no. Weight kg

		Shoring Braces UBS	L	Х	Y	
128936	4.250	Shoring Brace UBS 100/100	1413	1000	1000	
129354	5.300	Shoring Brace UBS 100/150	1771	1000	1500	
107801	5.260	Shoring Brace UBS 150/100	1792	1500	1000	
107810	6.050	Shoring Brace UBS 150/150	2122	1500	1500	
115504	6.360	Shoring Brace UBS 200/100	2219	2000	1000	
115291	7.050	Shoring Brace UBS 200/150	2492	2000	1500	
123592	7.630	Shoring Brace UBS 250/100	2672	2500	1000	
123588	8.090	Shoring Brace UBS 250/150	2902	2500	1500	
123584	8.820	Shoring Brace UBS 300/100	3139	3000	1000	
123580	9.360	Shoring Brace UBS 300/150	3337	3000	1500	
		Standard diagonal for shoring frames				





PFR

Industrial Decks Steel UDI 25		
Industrial Deck UDI 25 x 50	4.090	404029
Industrial Deck UDI 25 x 75	5.520	405925
Industrial Deck UDI 25 x 100	6.950	406092
Industrial Deck UDI 25 x 125	8.380	406880
Industrial Deck UDI 25 x 150	9.790	407002
Industrial Deck UDI 25 x 200	12.700	408380
Industrial Deck UDI 25 x 250	15.500	408540
Industrial Deck UDI 25 x 300	18.400	408689
Mounted on Ledgers UH.		

Х	perm. p [kN/m²]	max. p [kN/m²]	
500	6.0	40.0	
750	6.0	40.0	
1000	6.0	40.0	
1250	6.0	28.4	
1500	6.0	19.6	
2000	6.0	10.9	
2500	4.5	6.9	
3000	3.0	4.7	
lata			

Note

perm. p according to DIN EN 12811-1. max. p = maximum possible load without deflection limitation.





ltem no.	Weight kg				
		Steel Decks UDG	Х	perm. p [kN/m²]	max. p [kN/m²]
124124	3.880	Steel Deck UDG 25 x 50	500	6.0	40.0
124121	5.260	Steel Deck UDG 25 x 75	750	6.0	40.0
124118	6.630	Steel Deck UDG 25 x 100	1000	6.0	40.0
124115	8.010	Steel Deck UDG 25 x 125	1250	6.0	28.4
124112	9.410	Steel Deck UDG 25 x 150	1500	6.0	19.6
124109	12.200	Steel Deck UDG 25 x 200	2000	6.0	10.9
123771	14.900	Steel Deck UDG 25 x 250	2500	4.5	6.9
124915	17.700	Steel Deck UDG 25 x 300	3000	3.0	4.7
		Mounted on Ledgers UH.	Note		



Perm. p according to DIN EN 12811-1. max. p = maximum possible load without deflection limitation.





109755 15.700 Hatch UAF 75 x 100







Item no. Weight k	g	
126393 15.600 126392 19.600 126314 23.500	Access Decks UAL-3 Access Deck UAL-3, 75 x 150/3 Access Deck UAL-3, 75 x 200/3 Access Deck UAL-3, 75 x 250/3	L 1500 2000 2500 Technical Data Load Class 3, 2.0 kN/m².
126318 3.750	Accessories Ladder Flex UEL with hook	
126318 3.750	D Ladder Flex UEL with hook	213 → 6 x 280 = 1680 2093

117196 9.930 Base Standard UVB 135 Plus Note Use of Spindle Tube TR 48 in the base area through the transition of standard Ø 48 mm on a UBS (crossed) standard with Ø 60 mm.



For horizontal bracing by Shoring Braces



ltem no.	Weight kg		
117197	10.400	Top Standard UVH 165 Plus	Note
		Use of Spindle Tube TR 48 and Cross Forkhead TR 48 in the top area through the transition of standards \emptyset 48 mm on a standard with \emptyset 60 mm.	For horizontal bracing by Shoring Braces UBS (crossed)





PERI

018630 9.500 **C**

Cross Head Spindle TR 48-75/47, galv. Head spindle for PD 8 Slab Table and Flex Plus Shoring.

Complete with

1 pc. 018270 Quick Jack Nut TR 48, galv.







Accessories Tension Strap 16-25, galv.

Item no. Weight kg







127604 1.270 Quick Jack Nut TR 48-2, galv.

For spindles Ø 48 mm; with additional groove.





117743 0.798 Handle Lock UJS Plus Secures Head- and Base Spindles Ø 48 mm in the Standard Plus during moving.







DFD

ltem no.	Weight kg				
018070	1.770	Base Plate for Spindle Tube TR 48			
		Base plate for Spindle Tubes and Foot Tube FR 80.			
		0		-	
			0 0 0	°Ø20	
			$ \circ \mathbf{O} \circ$	۲ Ø11	Ø17

Accessories		
Pin Ø 16 x 65/86, ga	0.171	018050
Cotter Pin 4/1, galv.	0.030	018060

018040 3.770 Head Plate for Spindle Tube TR 48

P

9/

galv.

Note

0 0 Q

□110

Can be pivoted by 2.1 % in combination with Cap Piece.

PERI

80

10

□150



018050 018060 019660	0.171 0.030 0.288	Accessories Pin Ø 16 x 65/86, galv. Cotter Pin 4/1, galv. Cap Piece, galv.		
019660	0.288	Cap Piece, galv. For centric load application. Allows 2.1% inclination of the head plate.		T.
107160	3.960	Connector MP-SRU As compensation element between the Prop Head MP/SRU and inclined positioned Steel Waler SRU.	325	 . 48 .





Accessories 104031 0.462 Fitting Pin Ø 21 x 120 018060 0.030 Cotter Pin 4/1, galv.







018060	0.030	Accessories Cotter Pin 4/1, galv.	
018060	0.030	Cotter Pin 4/1, galv.	
		()	<u> </u>



DED

	Shoring lower	PERI
Item no. Weight kg 111053 0.059	Locking Pin Ø 48/57 As tension-proof connection of standards with a diameter of 48 up to 57 mm.	
100719 0.060	Bolt ISO 4014 M10 x 70-8.8 MU As tension-proof connection of standards for suspended scaffolds or lattice girders.	
		SW 16
116306 1.700	Rosett Coupler UEV 180°	
126453 1.630	Rosett Coupler UEV 90°	
PERI UP Flex Shoring Tower

PERI

Item no. Weight kg 116176 15.000

Transportation Wheel UEW

For inserting in Connection Transportation Wheel UER (for Rosett) and Transportation Wheel ST 100.



Permissible load-bearing capacity 3.5 kN per wheel with spindle extension of Shoring Tower up to 30 cm.





		Accessories
116193	5.150	Connection Transportation Wheel UER

116193	5.150	Connection Transportation Wheel UER	
		Mounted on Standards UVR. Allows moving of complete frameworks.	





Accessories 116176 15.000 **Transportation Wheel UEW**

PERI UP Flex Shoring Tower



Item no. Weight kg 019200 162.000

Trolley with Winch

For moving towers and tables with MULTIPROP, Flex, Flex Plus and PD 8 with appropriate support for the system.



Note

Follow Instructions for Use! **Technical Data** Permissible load-bearing capacity 1.0 t.



		Accessories
118114	14.200	Connector MP – Trolley
118115	11.000	Connector PD 8 – Trolley
130501	27.600	Connector PERI UP – Trolley

130501	27.600	Connector PERI UP – Trolley
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