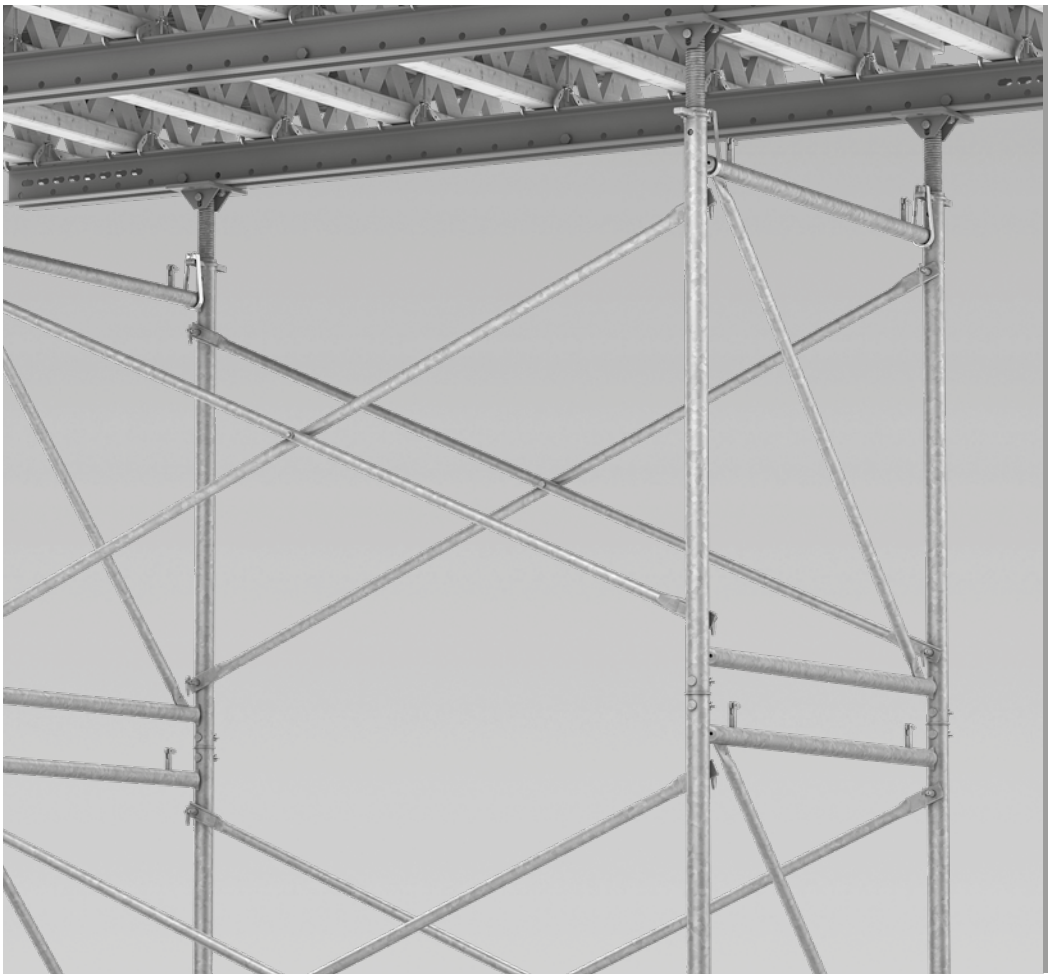
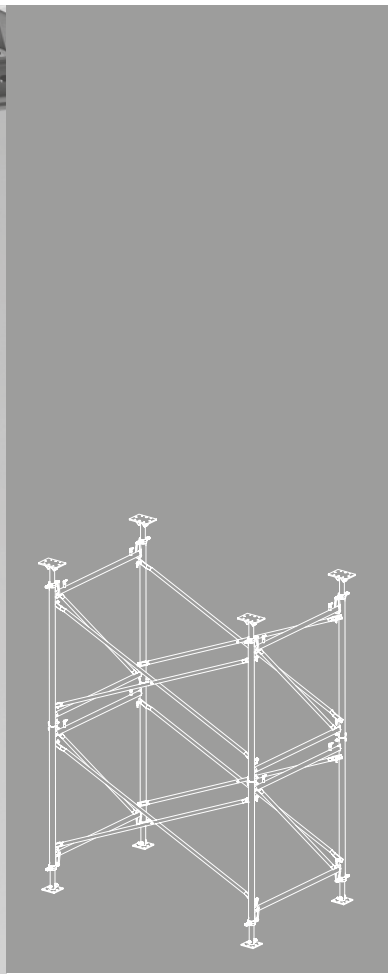
PD 8
Shoring System

Instructions for Assembly and Use – Standard Configuration – Issue 04/2020

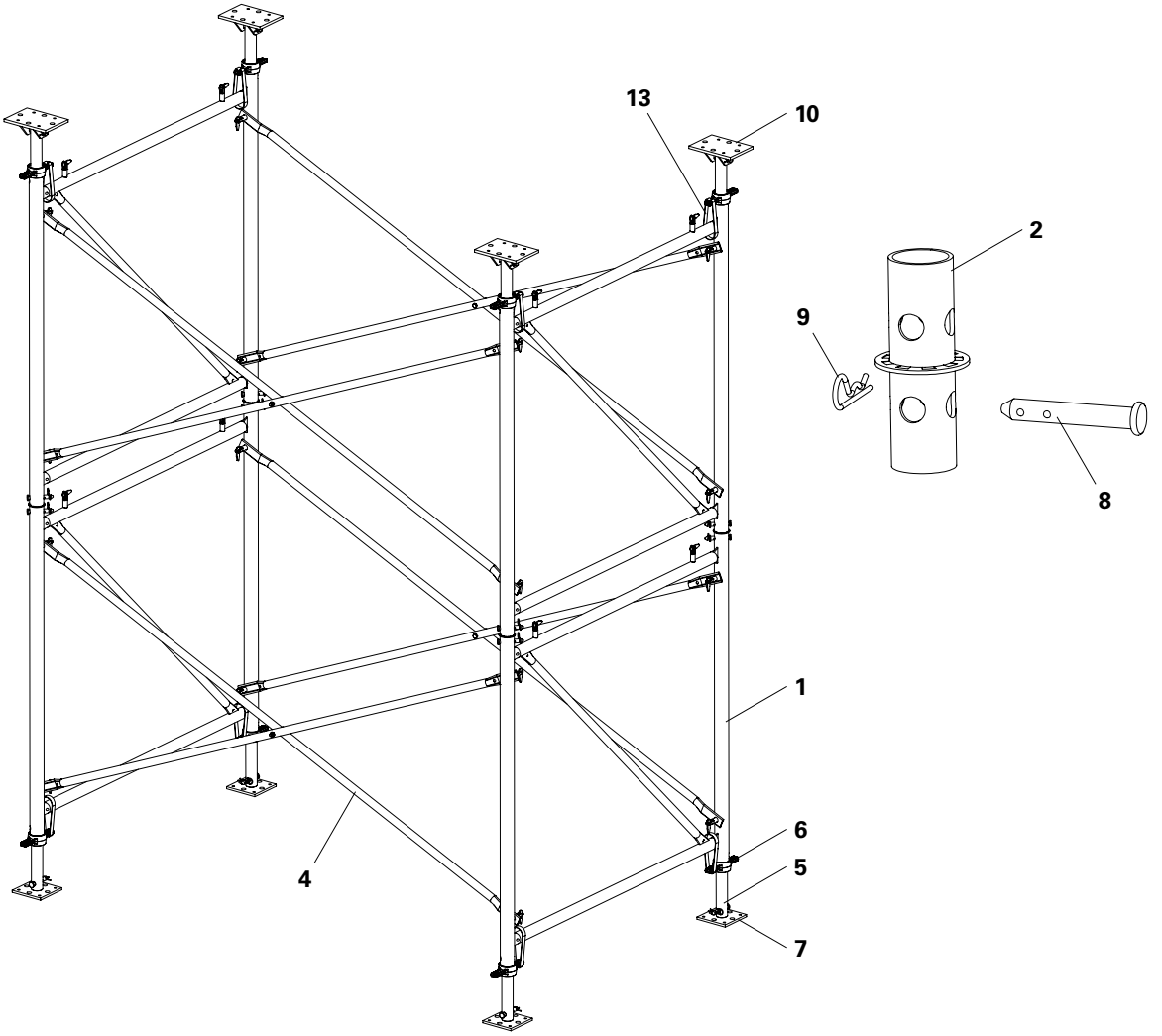




Content

Overview

Main components



1 Frame PD 8
2 Connector with washer
4 Diagonal Brace DK
5 Spindle Tube TR 48
6 Quick Jack Nut TR 48-2
7 Base plate for Spindle Tube TR 48
8 Bolt Ø 16 x 65/86
9 Cotter pin 4/1
10 Head plate for Spindle Tube TR 48
13 Safety Strap for PD 8 Table

Key

Pictogram | Definition


Danger/Warning/Caution


Note


To be complied with


Load-bearing point


Visual check


Tip


Incorrect use


Safety helmet


Safety shoes


Safety gloves


Safety goggles


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

Safety instruction categories
The safety instructions alert site personnel to the risks involved and provide information on how to avoid these risks. Safety instructions are featured at the beginning of the section or ahead of the instructions, and are highlighted as follows:


Danger
This sign indicates an extremely hazardous situation which, if not avoided, will result in death or serious, irreversible injury.


Warning
This sign indicates a hazardous situation which, if not avoided, could result in death or serious, irreversible injury.


Caution
This sign indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.


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

Format of the safety instructions


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

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

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

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

To facilitate understanding, detailed illustrations are sometimes incomplete. The safety installations which have possibly not been shown in these detailed illustrations must nevertheless be available.

Arrows

Arrow representing an action

Arrow representing a reaction of an action*

Arrow representing forces

* If not identical to the action arrow.

Target groups

Scaffolding contractors/contractors
These Instructions for Assembly and Use are designed for contractors who
- assemble, modify and dismantle the scaffolding, or
- use them, e.g. for concreting, or
- allow them to be used, e.g. for forming operations.

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

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

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

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

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

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

Additional technical documentation

- Instructions for Use
  - Crane lifting unit, upper part
  - Trolley with winch unit
  - Pallets and Stacking Devices

Intended use

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

These Instructions for Assembly and Use describe the standard configuration for shoring in accordance with the provisions of DIN EN 12812. Shoring handles static loads and is not suitable for lifting or lowering components and constructions.

The PD 8 Shoring System can be used as a table for transferring vertical loads.

Features
The PD 8 Shoring System is used in shoring construction in a planned perpendicular position to transfer vertical loads.

Main components
- Frame PD 8
- Diagonal Braces DK
- Connector with Washer
- Spindle Tubes TR
- Base plates for Spindle Tubes TR
- Head plates for Spindle Tubes TR

Technical data
Slab table:
- Frames R 150 and R 110 connected on top of one another.
- Maximum spindle range top/bottom: 80 cm.
- Bracing: with Diagonal Brace DK 150 to DK 350.

Instructions for use

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

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

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.

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

Cleaning and maintenance instructions

Clean the panels after each use to maintain the value and usability of the PERI products over the long term.

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.

The contractor must ensure that the personal protective equipment required for cleaning, maintenance and repair work such as
- safety helmets,
- safety shoes,
- safety gloves,
- safety goggles,

is available and used as intended.

Never use steel brushes or hard metal scrapers to clean powder-coated or galvanised components.

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

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

Do not clean components suspended on crane lifting gear.

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

Cross-system

Safety instructions apply to all phases of the 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. However, these Instructions for Assembly and Use do not replace the risk assessment!

Refer to and comply with the safety instructions and permissible loads.

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

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

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

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

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

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

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

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

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

Before and after exceptional occurrences that may have an adverse effect on the safety of the scaffolding system, the contractor must immediately
- produce another risk assessment and make use of its results to take suitable steps to guarantee the stability of the scaffolding system,
- arrange for an extraordinary inspection to be carried out by a competent person qualified to do so. The aim of this inspection is to identify and rectify any damage in good time in order to guarantee safe use of the scaffolding system.

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

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

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

The contractor must ensure that the personal protective equipment required for assembly, modification or dismantling of the shoring system such as
- safety helmets,
- safety shoes,
- safety gloves,
- safety goggles,

is available and used as intended.

If personal protective equipment against falling from a height (PPE) is required or specified in local regulations, the contractor must determine appropriate attachment points on the basis of the risk assessment.
The PPE 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 stability during all stages of construction, in particular during assembly, modification and dismantling operations.
- ensure and provide evidence that all loads that occur are transferred safely.

Use
Every contractor who uses or allows the scaffolding systems to be used, is responsible 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.

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.

The load-distributing support used, e.g. planking, must match the respective base. If multiple layers are required, planks are to be arranged crosswise.

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 and only those load-bearing points provided on the component.

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

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

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

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

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

Substrate

- The PD 8 Shoring System must be assembled on a sufficiently load-bearing and flat substrate.
- In each individual case, the substrate must be selected according to the local circumstances and, if necessary, verified by means of a static calculation.
- Any differences in the settlements of the corner standards are not taken into consideration in the proof of stability.

Vertical leg loads

- Determine the vertical leg loads in each individual case.
- The leg loads must be accommodated by the base level with the required degree of safety.

Assembly

- Apart from the initial frames, the shoring system is assembled in the upright position.
- A crane is required for subsequent placement of the shoring system.

A2 Assembling base spindles

- Spindle (**5a**) l = 75 (9 – 47 cm)
- Spindle (**5b**) l = 116 (9 – 88 cm)

Assembly

1. Place 2x Frames PD 8 R 150 (**1a**) on support timbers. (Fig. A2.01)
2. Prepare 4x base spindles (**A**).
   – Screw Quick Jack Nut TR 48-2 (**6**) onto Spindle Tube TR 48 (**5a/5b**).
   – Bolt the base plate for Spindle Tube TR 48 (**7**) onto Spindle Tube TR 48 (**5a/5b**) with bolt Ø 16 x 65/86 (**8**) and secure it with cotter pin 4/1 (**9**).
   (Fig. A2.01b)
3. Insert 4x base spindles (**A**) into the frame tubes from below.
4. Secure the base spindles (**A**) on the Frame PD 8 R 150 (**1a**) with Safety Strap for PD 8 Table (**13**). (Fig. A2.01a)
5. Insert 4x connectors with washers (**2**) into the top of the frame tubes and fasten them with bolts Ø 16 x 65/86 (**8**) and cotter pins 4/1 (**9**). (Fig. A2.01c)

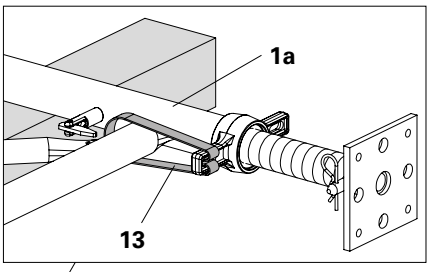


Fig. A2.01a

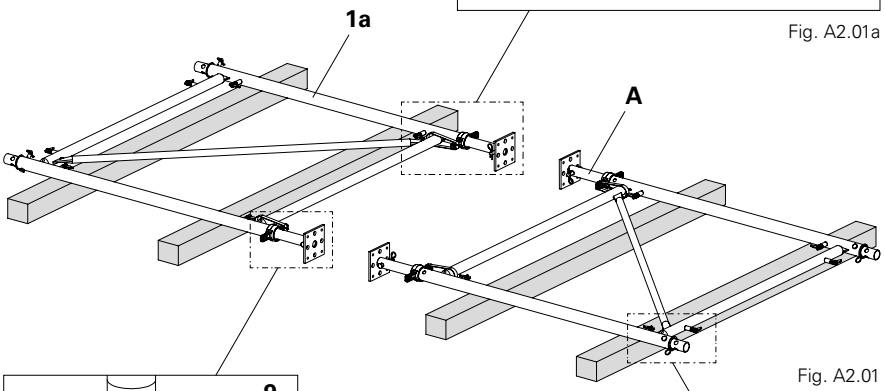


Fig. A2.01

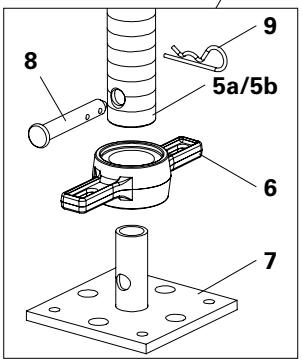


Fig. A2.01b

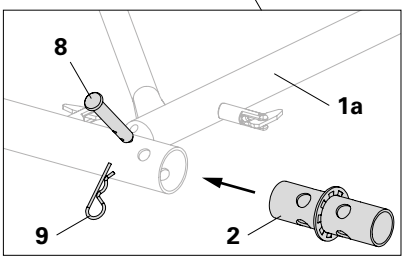


Fig. A2.01c

A3 Assembling the first level

Warning

Adhere to the maximum permissible spindle range or, otherwise, the tower could collapse!
This can lead to serious injuries or even death.

⇒ Adhere to the maximum permissible spindle range.

⇒ Adjust the spindle ranges in accordance with the static verification.

Assembly

1. Stand Frames PD 8 (**1**) up vertically and position them according to the specifications.
2. Connect Frames PD 8 (**1**) with Diagonal Braces DK (**4**).
   Insert the ends into the self-securing gravity pins (**1.1**). (Fig. A3.01a)
3. Spindle out frames to the same height.

(Fig. A3.01)

In order to make the assembly process easier, a temporary horizontal diagonal brace DK (**4a**) can be mounted.

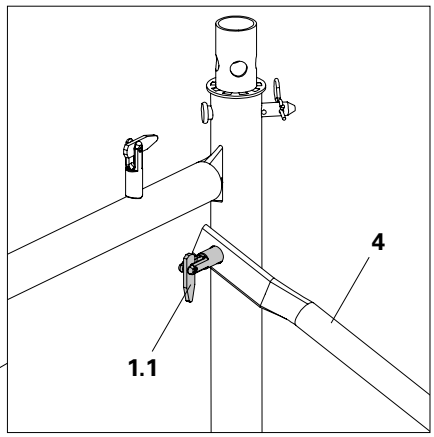


Fig. A3.01a

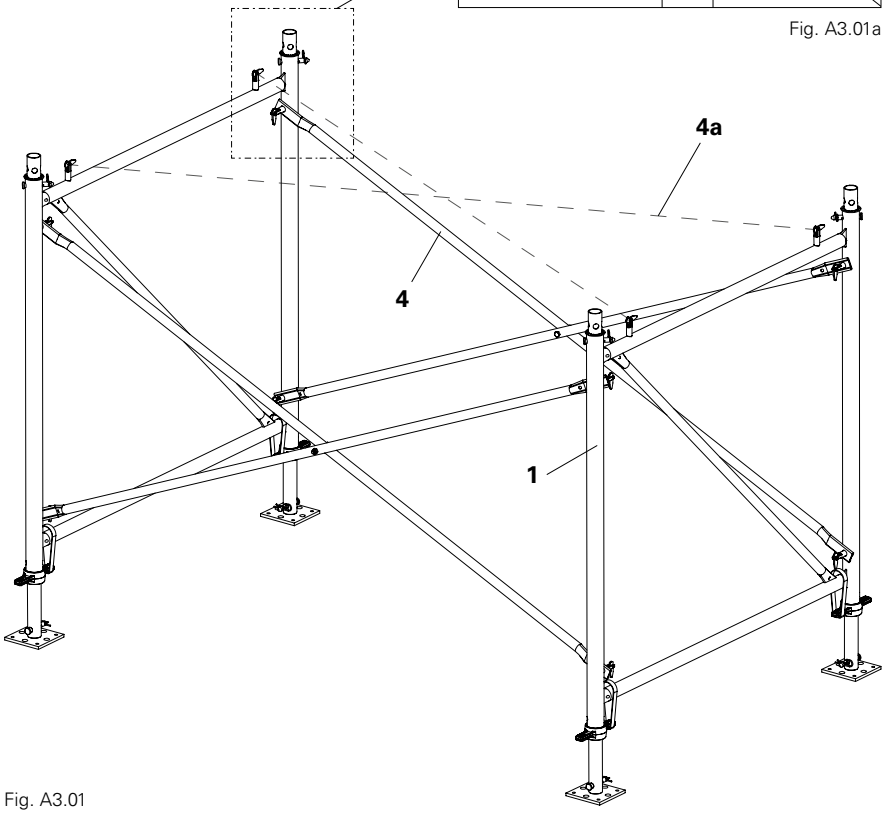


Fig. A3.01

A4 Assembling other levels

For the higher levels, pre-assemble Frames PD 8 (**1**) on the ground with Diagonal Braces DK (**4**) (see Chapter "A3 Assembling the first level" on page 12), set them in position using a crane and secure with bolts Ø 16 x 65/86 (**8**) and cotter pin 4/1 (**9**).

Assembly

1. Lay the planking (**26**) down and secure it to prevent it from slipping or being lifted. (Fig. A4.01)
2. Insert Frames PD 8 (**1**) into the connectors with washers (**2**) and secure them with bolts Ø 16 x 65/86 (**8**) and cotter pins 4/1 (**9**). (Fig. A4.02 + A4.02a)

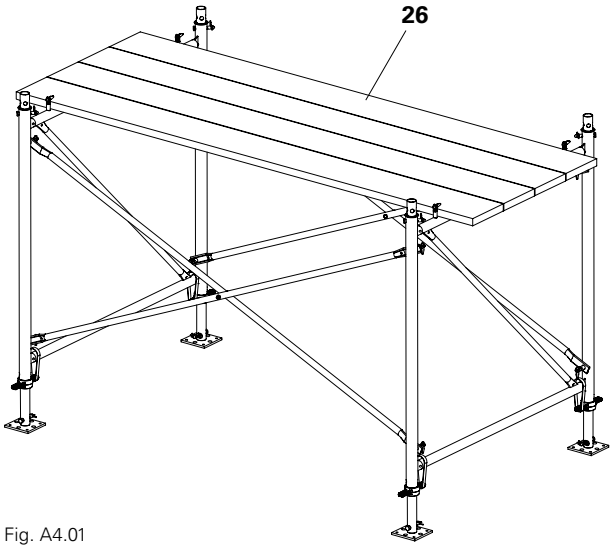


Fig. A4.01

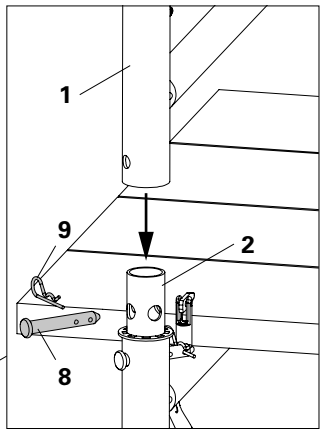


Fig. A4.02a

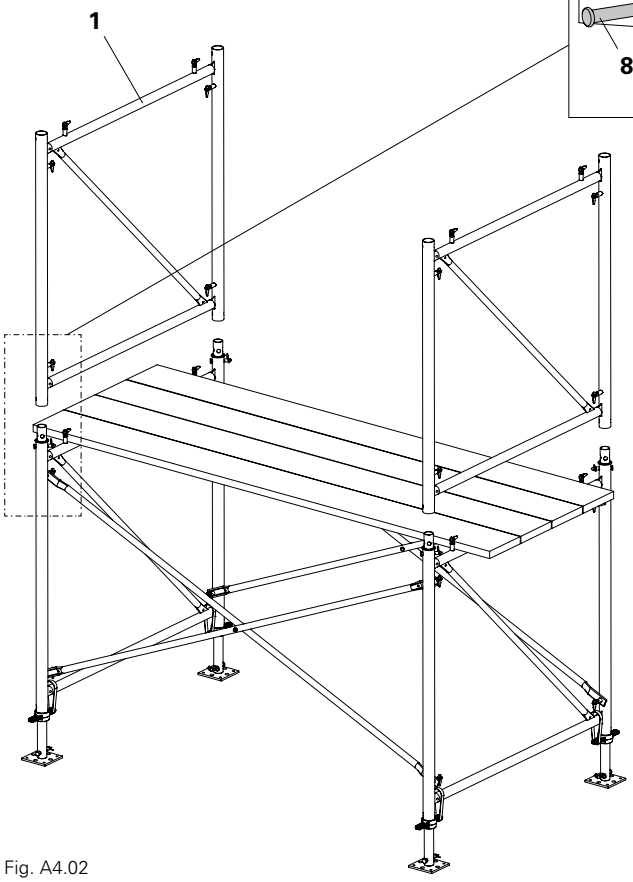


Fig. A4.02

A4 Assembling other levels

Assembling diagonal braces

1. Connect Frames PD 8 (**1**) with Diagonal Braces DK (**4**).
   Insert the ends into the self-securing gravity pins (**1.1**). (Fig. A4.03)

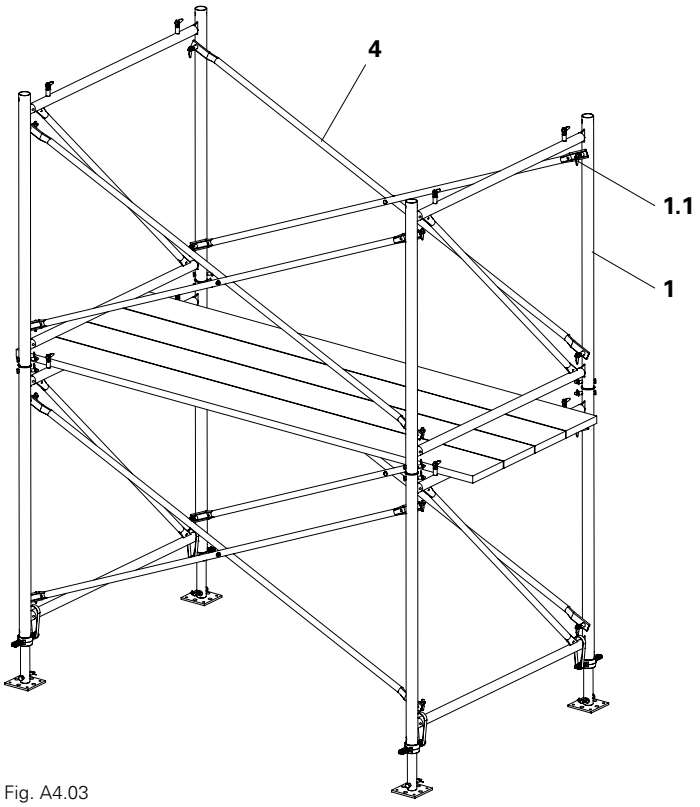


Fig. A4.03

A5 Assembling head spindles

The spindle with head plate (**B**) or Cross Head Spindle TR 48-75/42 (**12**) can be used with the system.

Spindle with head plate

- Spindle (**5a**) l = 75 (9 – 47 cm)
- Spindle (**5b**) l = 116 (9 – 88 cm)

Assembly

1. Prepare 4x spindles with head plates (**B**).
   – Screw Quick Jack Nut TR 48-2 (**6**) onto Spindle Tube TR 48 (**5a/5b**).
   – Insert cap piece (**11**) into Spindle Tube TR 48 (**5a/5b**).
   – Bolt the head plate for Spindle Tube TR 48 (**10**) onto Spindle Tube TR 48 (**5a/5b**) with bolt Ø 16 x 65/86 (**8**) and secure it with cotter pin 4/1 (**9**).
   (Fig. A5.01a)
2. Slide 4x spindles with head plates (**B**) into the frame tubes from above.
3. Spindle out the spindles with head plates (**B**) to the required height.
4. Secure the spindles with head plates (**B**) on the Frame PD 8 (**1**) with Safety Strap for PD 8 Table (**13**).
   (Fig. A5.01b)

Cross Head Spindle TR 48-75/42

1. Slide 4x Cross Head Spindles TR 48-75/42 (**12**) into the frame tubes from above.
2. Spindle out the Cross Head Spindles TR 48-75/42 (**12**) to the required height.
3. Secure the Cross Head Spindles TR 48-75/42 (**12**) on the Frame PD 8 (**1**) with Safety Strap for PD 8 Table (**13**). (Fig. A5.01)

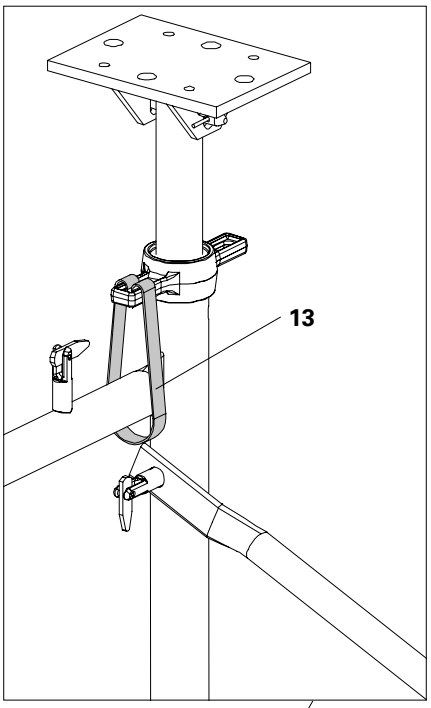


Fig. A5.01b

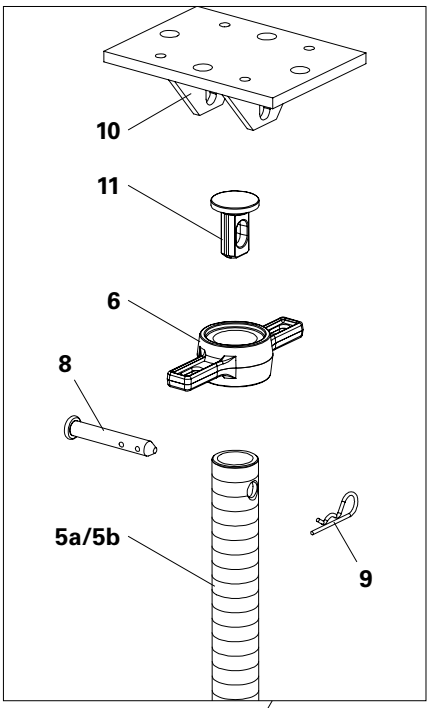


Fig. A5.01a

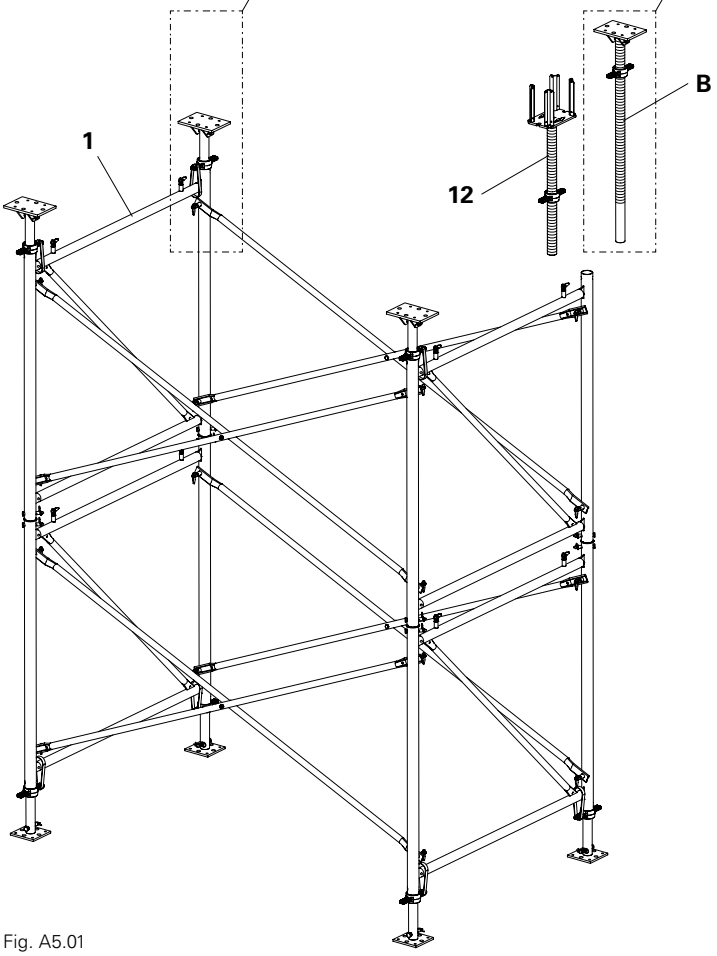


Fig. A5.01

With cross strap

Steel Walers SRU U120 can only be mounted on spindles with head plates (**B**).

Assembly

1. Place the Steel Walers SRU U120 on the head plates for Spindle Tube TR 48 (**10**).
2. Place the cross strap (**23**) on the Steel Walers SRU U120.
3. Fasten the cross strap (**23**) onto the head plate for the Spindle Tube TR 48 (**10**) with bolt ISO 4014 M16 x 160-4.6 MU (**19**). (Fig. A6.01 + A6.01a)

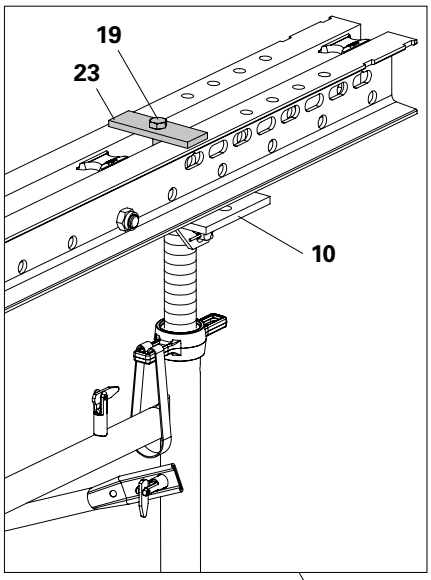


Fig. A6.01a

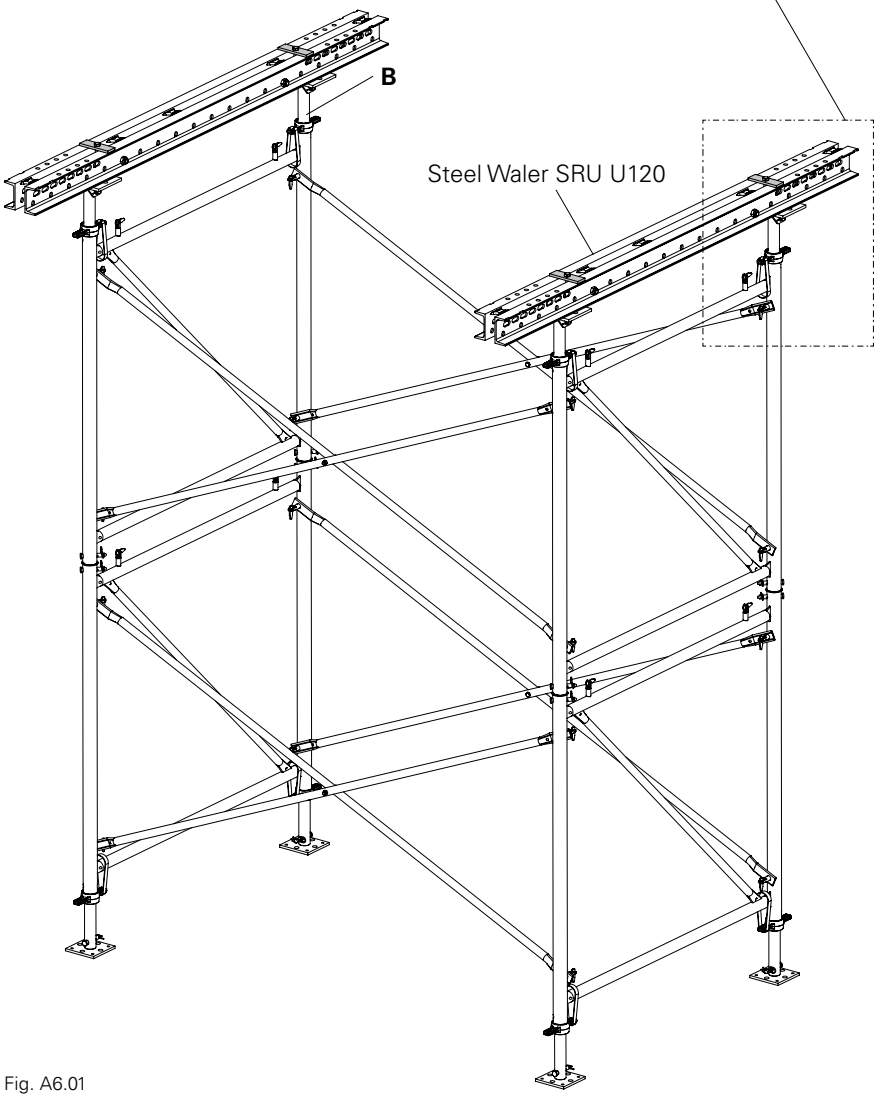


Fig. A6.01

A7 Assembling Formwork Girders GT 24

Formwork Girders GT 24 can be mounted on spindles with head plates (**B**) or inserted into Cross Head Spindles TR 48-75/47.

With Girder Strap TB or Double Girder Strap DTB

Fitting Girder Strap TB

1. Place the Formwork Girders GT 24 on the head plates for Spindle Tube TR 48 (**10**).
2. Remove the nuts from Girder Straps TB (**20**).
3. Slip the Girder Straps TB (**20**) through the Formwork Girders GT 24 and insert them into the head plates for the Spindle Tube TR 48 (**10**).
4. Fasten the Girder Straps TB (**20**) onto the head plates for the Spindle Tubes TR 48 (**10**) with nuts.
(Fig. A7.01 + A7.01a)

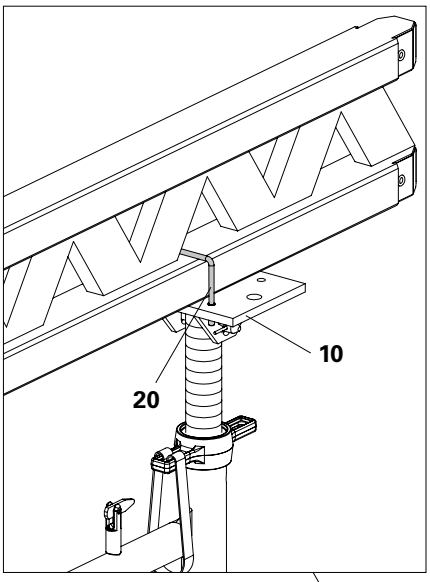


Fig. A7.01a

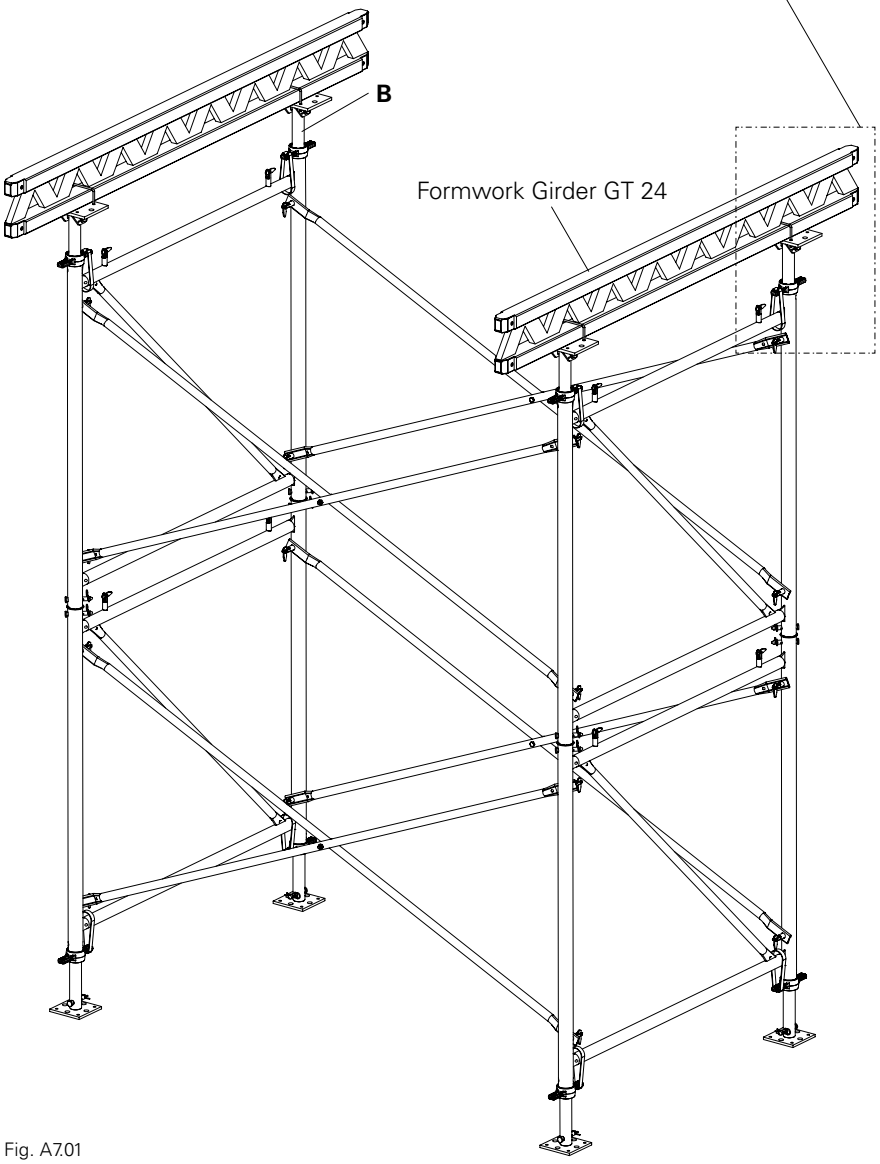


Fig. A7.01

A7 Assembling Formwork Girders GT 24

Fitting Double Girder Strap DTB

1. Place the Formwork Girders GT 24 on the head plates for Spindle Tube TR 48 (**10**).
2. Remove the nuts from Double Girder Strap DTB (**21**).
3. Slip the Double Girder Straps DTB (**21**) through the Formwork Girders GT 24 and insert them into the head plates for the Spindle Tube TR 48 (**10**).
4. Fasten the Double Girder Straps DTB (**21**) onto the head plates for the Spindle Tubes TR 48 (**10**) with nuts. (Fig. A7.02 + A7.02a)

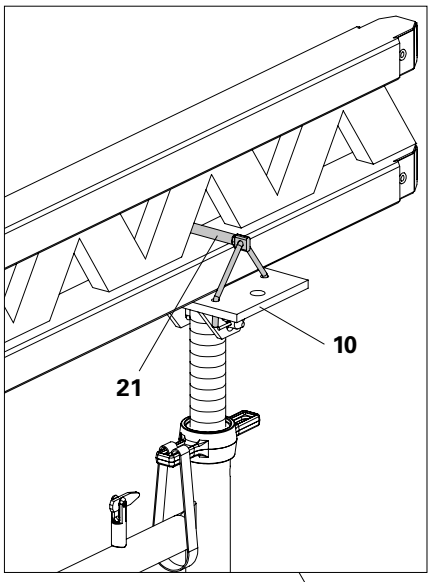


Fig. A7.02a

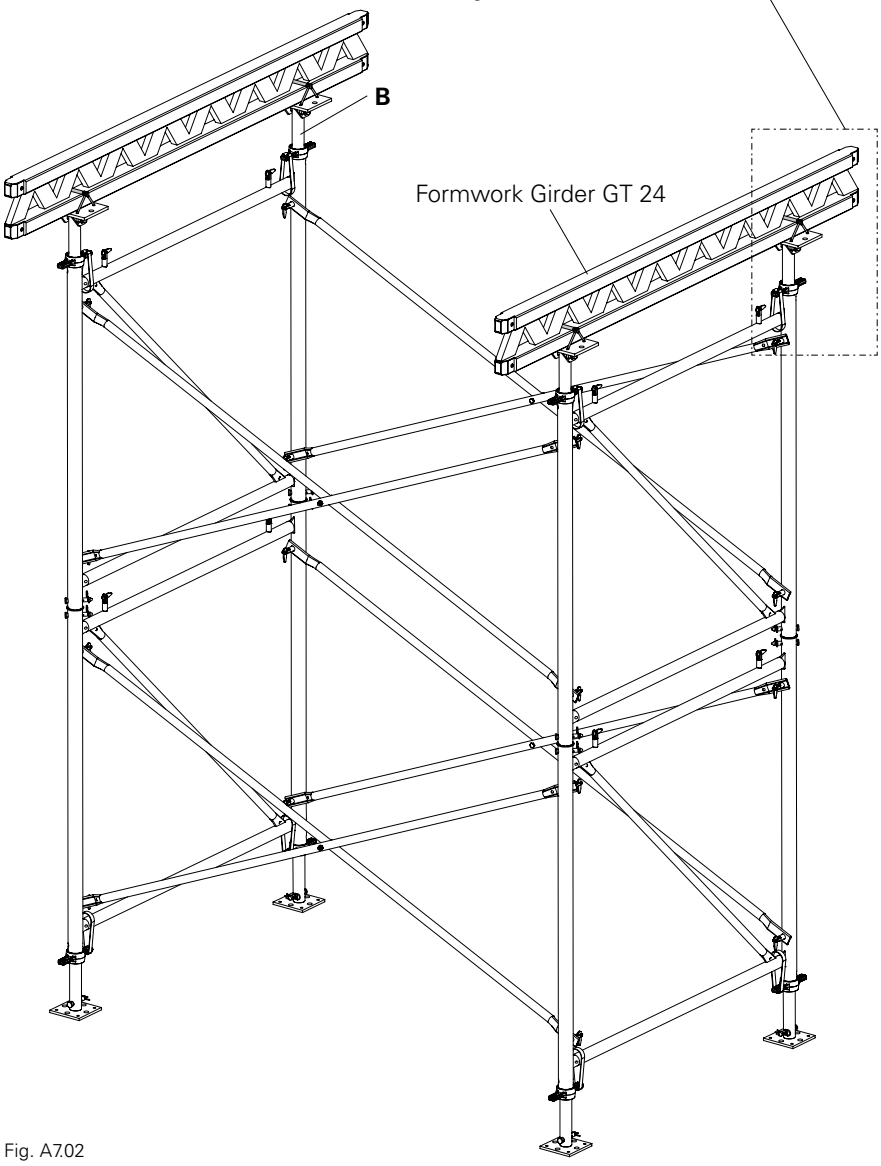


Fig. A7.02

With yoke plate

Fitting the yoke plate

1. Place the Formwork Girders GT 24 on the head plates for Spindle Tube TR 48 (**10**).
2. Place the yoke plate (**22**) on the Formwork Girders GT 24.
3. Slip 2x Yoke Clamps 24 (**24**) through the head plates for Spindle Tubes TR 48 (**10**) and Yoke Plates (**22**).
4. Fasten the Yoke Clamps 24 (**24**) with 2x Cam Nuts DW 15 (**25**). (Fig. A7.03 + A7.03a)

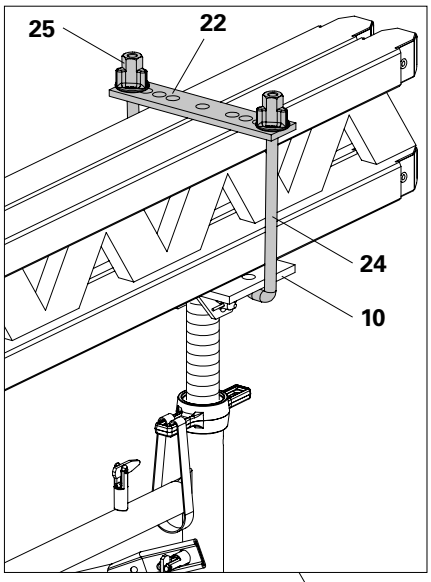


Fig. A7.03a

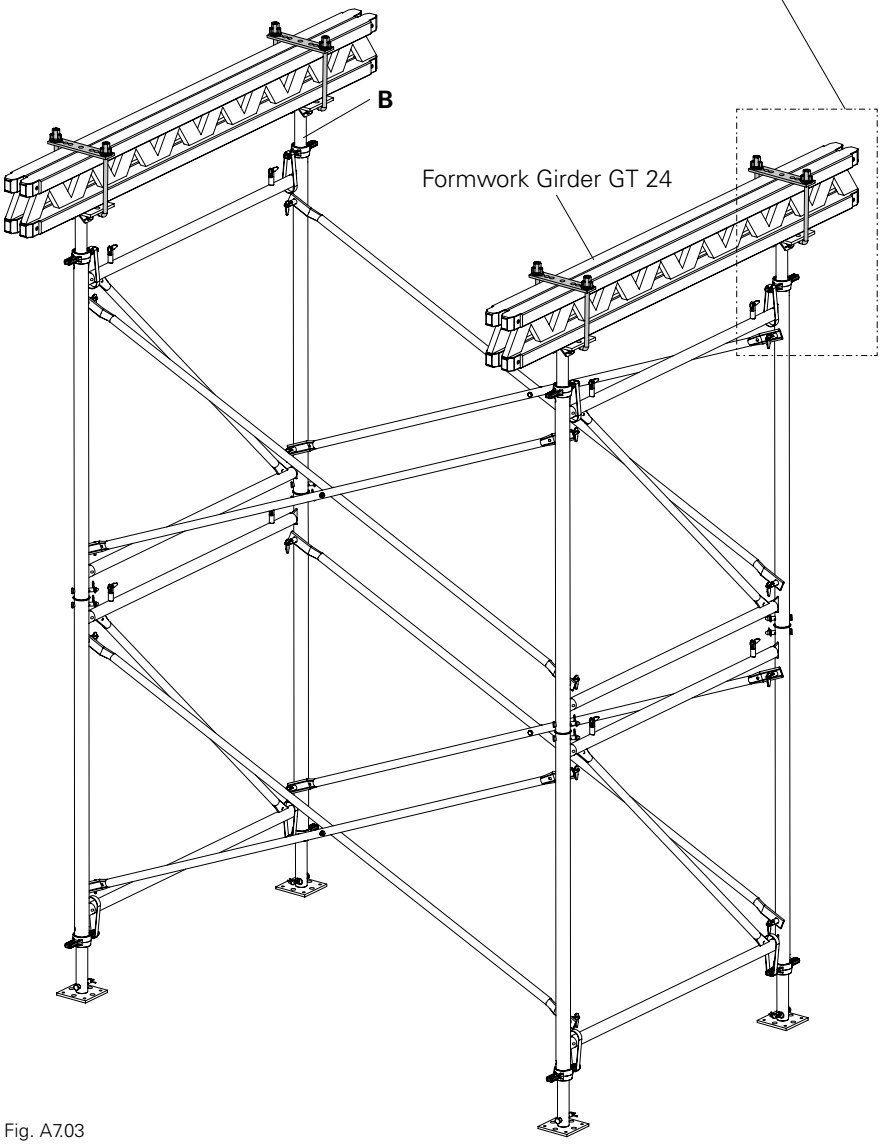


Fig. A7.03

A8 Assembling guardrails

The following regulations apply to the ladder cage:

- perm. width of influence of the guardrail posts: 1.45 m.
- Utilisation height up to 24 m.
- Secure the guardrail boards and toe boards with nails or screws.
- Wood thickness of the guardrail boards and toe boards: 4 x 12 cm.

- Pre-assemble the guardrail on the ground.
- The guardrail consists of:
  - Guardrail Holder GT 24/VT 20
  - Guardrail Post SGP
  - Guardrail boards
  - Toe boards

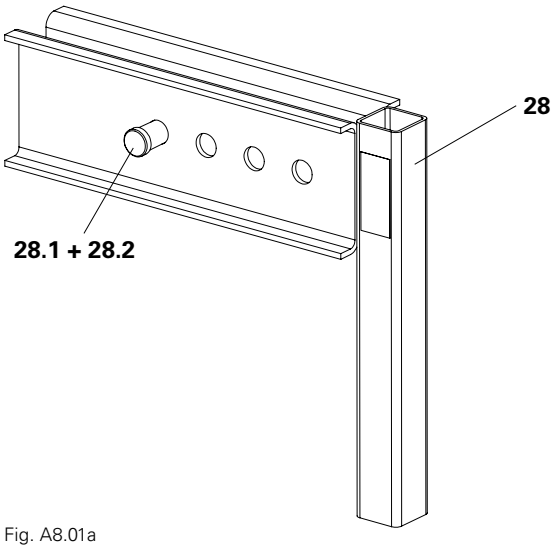


Fig. A8.01a

Installation on the main beam

1. Remove the bolt Ø 20 x 140 (**28.1**) and cotter pin 4/1 (**28.2**) from Guardrail Holder GT 24/VT 20 (**28**).
2. Push the Guardrail Holder GT 24/ VT 20 (**28**) with square tube **upwards** onto the main beam.
3. Secure the Guardrail Holder GT 24/ VT 20 (**28**) with bolt Ø 20 x 140 (**28.1**) and cotter pin 4/1 (**28.2**).
4. Insert the Guardrail Post SGP (**27**) into the square tube. (Fig. A8.01 + A8.01a)

Installation on the cross girder

1. Remove the bolt Ø 20 x 140 (**28.1**) and cotter pin 4/1 (**28.2**) from Guardrail Holder GT 24/VT 20 (**28**).
2. Push the Guardrail Holder GT 24/ VT 20 (**28**) with square tube **downwards** onto the cross girder.
3. Secure the Guardrail Holder GT 24/ VT 20 (**28**) with bolt Ø 20 x 140 (**28.1**) and cotter pin 4/1 (**28.2**).
4. Insert the Guardrail Post SGP (**27**) into the square tube. (Fig. A8.01 + A8.01a)

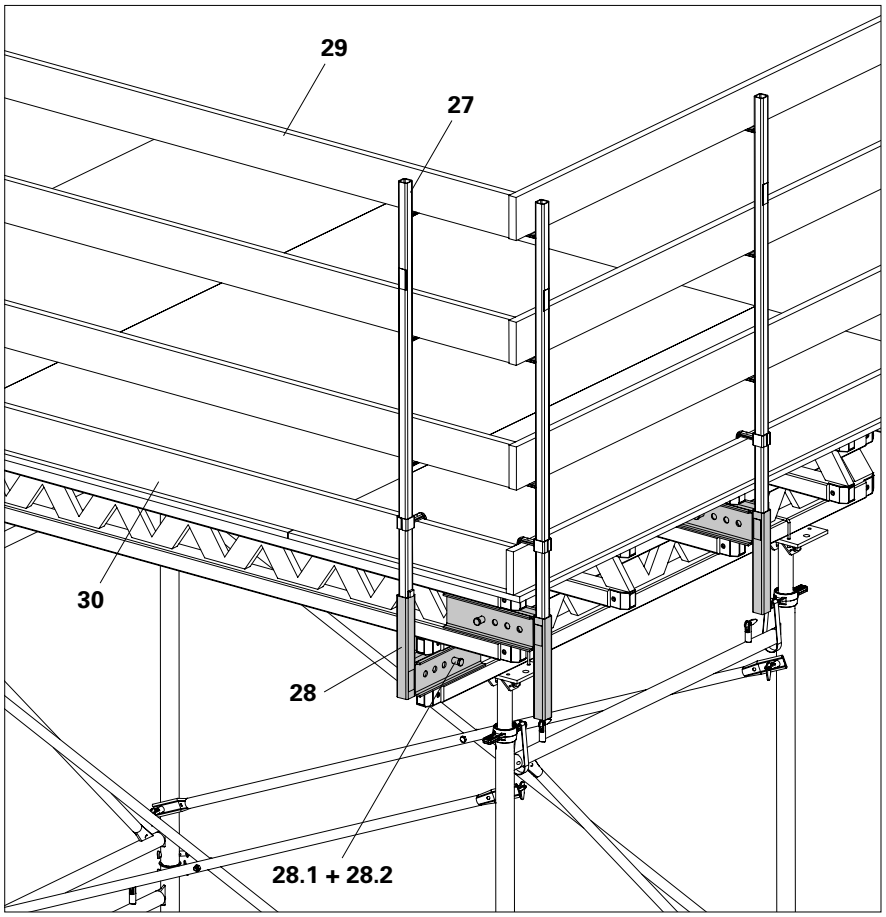


Fig. A8.01

A9 Combination tables

PD 8 Slab Table

		min. height [m]	1.55	1.77	2.47	2.87	3.27	3.58	3.98	4.38	4.78
		max. height [m]	1.89	2.29	2.99	3.39	3.79	4.09	4.49	4.89	5.29
		Frames on top of one another	1 x 110	1 x 150	2 x 110	1 x 110 1 x 150	2 x 150	3 x 110	2 x 110 1 x 150	1 x 110 2 x 150	3 x 150
Material requirements per table											
Item no.	Weight	Name									
018510	32.80	Frame PD 8 R 150	0	2	0	2	4	0	2	4	6
018520	27.20	Frame PD 8 R 110	2	0	4	2	0	6	4	2	0
018030	6.80	Spindle Tube TR 48-75/40	8	8	8	8	8	8	8	8	8
018120	4.40	Spindle Tube TR 48-116/80									
127604	1.27	Quick Jack Nut TR 48-2	8	8	8	8	8	8	8	8	8
018140	0.54	Connector with Washer	0	0	4	4	4	8	8	8	8
018040	3.80	Head plate for Spindle Tube TR 48	4	4	4	4	4	4	4	4	4
019660	0.34	Cap piece	4	4	4	4	4	4	4	4	4
018070	2.10	Base plate for Spindle Tube TR 48	4	4	4	4	4	4	4	4	4
116767	0.14	Safety Strap for PD 8 Table	8	8	8	8	8	8	8	8	8
018050	0.20	Bolt Ø 16 x 65/86	8	8	16	16	16	24	24	24	24
018060	0.03	Cotter pin 4/1	8	8	16	16	16	24	24	24	24
		Diagonal Brace DK	2	2	4	4	4	6	6	6	6
		Weight/table [kg]	182	191	247	258	268	314	325	335	345

Tab. A8.01

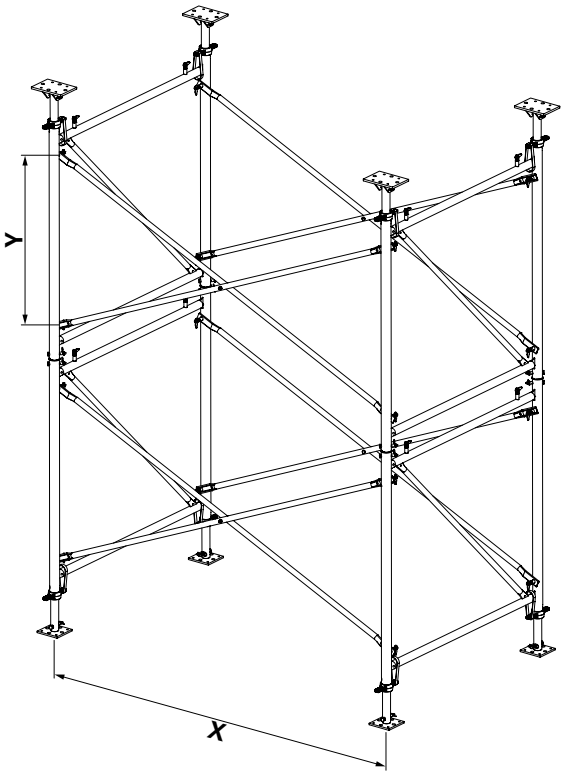
Frame combination

R 150 – R 150				
Item no.	Diagonal Brace DK	Length L	Measure-ment X	Measure-ment Y
018150	Diagonal Brace DK 125	1665	1250	1100
018160	Diagonal Brace DK 150	1860	1500	1100
018170	Diagonal Brace DK 200	2282	2000	1100
018180	Diagonal Brace DK 250	2731	2500	1100
018190	Diagonal Brace DK 300	3195	3000	1100
018200	Diagonal Brace DK 350	3668	3500	1100

Tab. A8.02

R 110 – R 110				
Item no.	Diagonal Brace DK	Length L	Measure-ment X	Measure-ment Y
019150	Diagonal Brace DK 125/110	1433	1250	700
019160	Diagonal Brace DK 150/110	1655	1500	700
019170	Diagonal Brace DK 200/110	2118	2000	700
019180	Diagonal Brace DK 250/110	2596	2500	700
019190	Diagonal Brace DK 300/110	3080	3000	700

Tab. A8.03



B1 Transport instructions

Safety instructions

Danger

Nobody is allowed to stay on the shoring during the relocation process! This could result in serious injuries or even death.

⇒ Make sure that nobody is on the shoring before starting the relocation process.

Warning

- Do not move the shoring over sloping terrain, the shoring could topple over!
  This could result in serious injuries or even death.
  ⇒ Do not move the shoring over sloping terrain.
- Do not raise the shoring in an uneven manner, the shoring could topple over!
  This could result in serious injuries or even death.
  ⇒ Raise the shoring evenly.
- Do not relocate the shoring with power-driven vehicles, the shoring could topple over!
  This could result in serious injuries or even death.
  ⇒ Do not use any power-driven vehicles.
  ⇒ Only relocate the shoring by hand.
- Do not raise the shoring when under load, the tower could topple over!
  This could result in serious injuries or even death.
  ⇒ Remove any load from the shoring before it is raised.

Notes

- Symmetrically assembled tables/ towers can be relocated safely under the following conditions:
  – Diagonal Brace DK ≥ DK 150.
  – No wind load.
  – Maximum moving speed 1 km/h.
  – If tables of a different size are moved, or if tables are moved under different conditions, then the tables must be secured with ropes or chains to prevent them from toppling over.
- A separate verification of safety must be produced for exceptional circumstances.

B2 Trolley with winch unit

- Observe the operating instructions for the trolley with winch unit.
- Relocation with Support PD 8 - Trolley (RAL 1028, melon yellow).
- Load-bearing capacity: 1000 kg.
- Refer to the table for table sizes.

Components

15 Trolley with winch
16 Support PD 8 - Trolley

Relocating
The assembly, lifting and relocation procedures are described in the operating instructions.

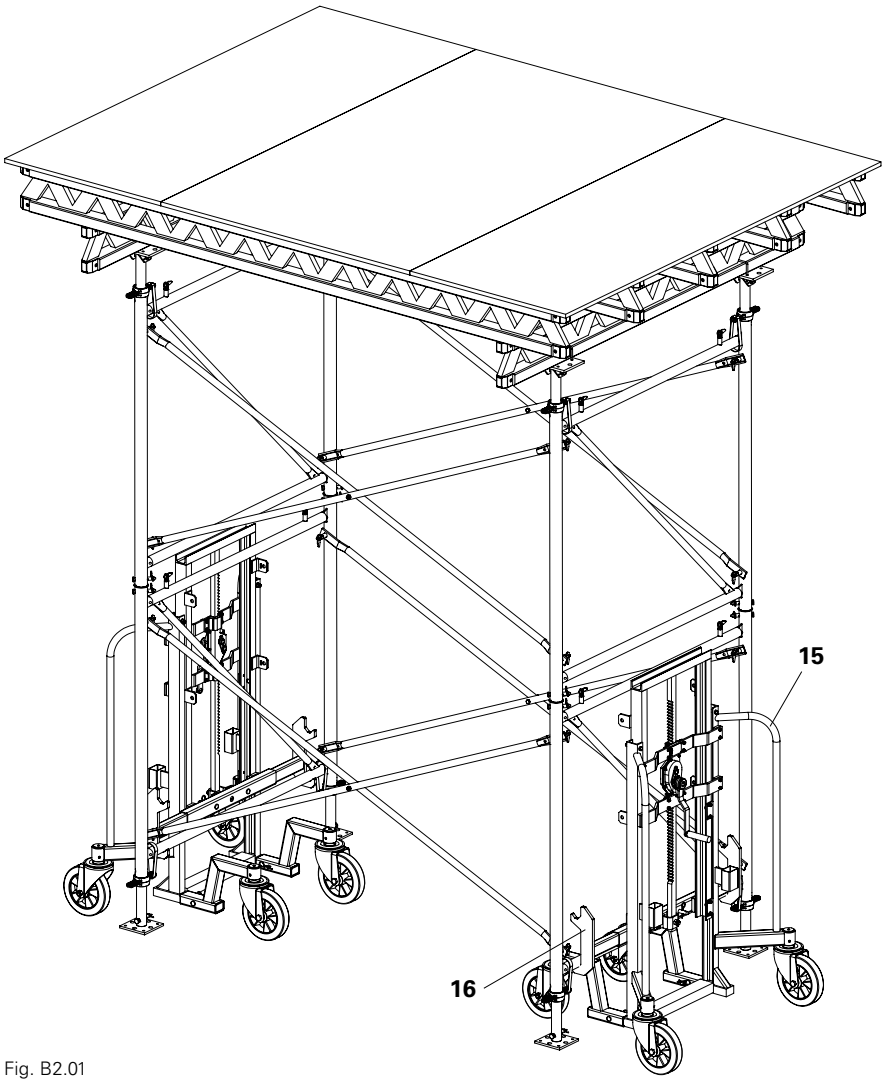


Fig. B2.01

Prerequisites in the direction of travel:
Diagonal brace ≥ DK 150

Weight of table	Direction of travel longitudinal Table height up to	Direction of travel transverse Table height up to
0 – 300 kg	300 cm	250 cm
301 – 400 kg	400 cm	300 cm
401 – 500 kg	500 cm	350 cm
501 – 600 kg	600 cm	400 cm
601 – 2000 kg	670 cm	500 cm

Tab. B2.01

B3 Crane lifting unit, upper part

With crane lifting unit, lower part UNIPORTAL

- Observe the operating instructions for the upper part of the crane lifting unit.
- Load-bearing capacity: 500 kg.
- Use as main beam on Formwork Girder GT 24.

Components

18 Crane lifting unit, upper part
31 Crane lifting unit, lower part UNIPORTAL

Relocating
The assembly, lifting and relocation procedures are described in the operating instructions.

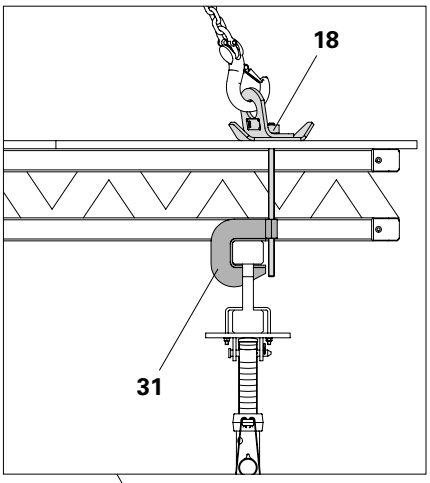


Fig. B3.01a

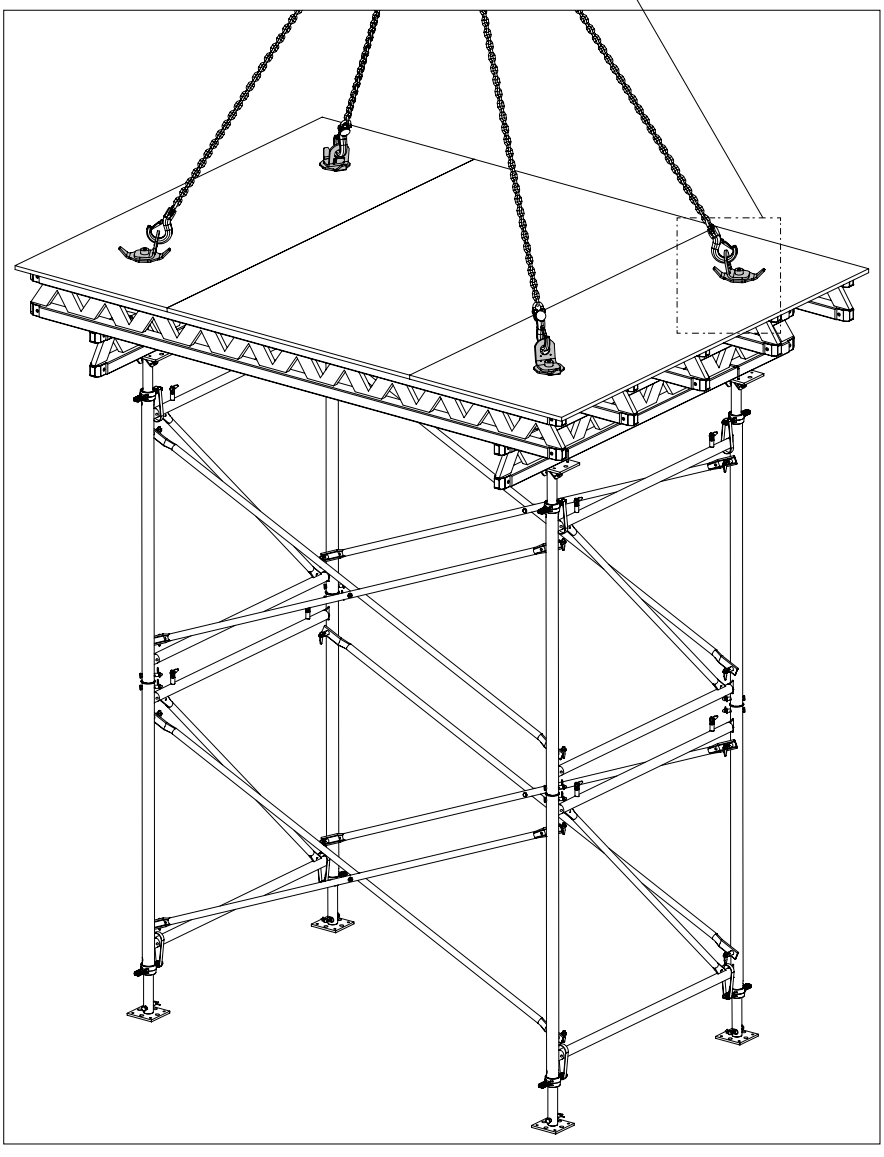


Fig. B3.01

With crane lifting unit, lower part – PD 8

- Observe the operating instructions for the upper part of the crane lifting unit.
- Load-bearing capacity: 500 kg.
- Use as main beam on Steel Waler SRU U120.

Components

17 Crane lifting unit, lower part – PD 8
17.1 Bolt Ø 16 x 65/86
17.2 Cotter pin 4/1
18 Crane lifting unit, upper part

Relocating

The assembly, lifting and relocation procedures are described in the operating instructions.

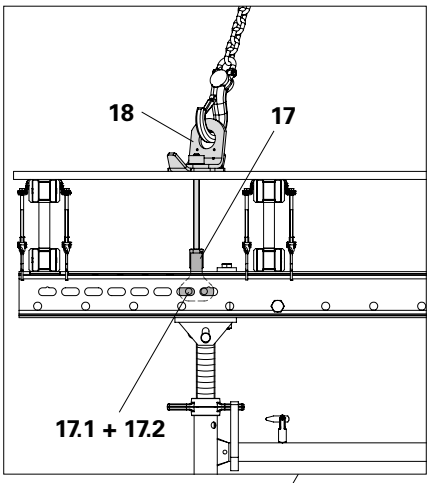


Fig. B3.02a

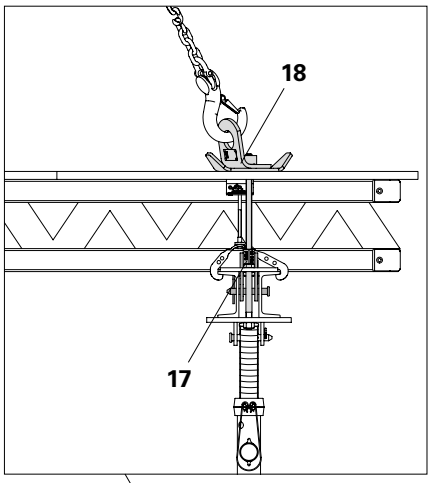


Fig. B3.02b

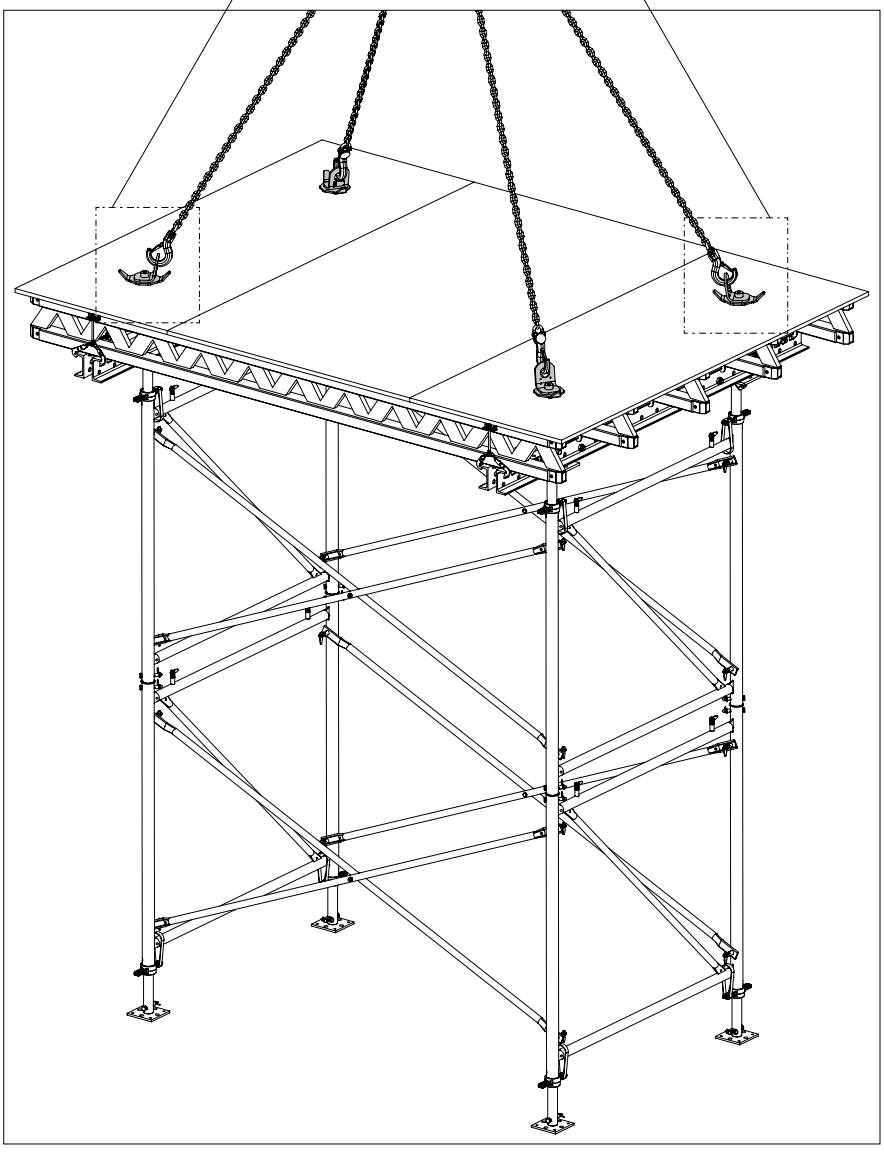
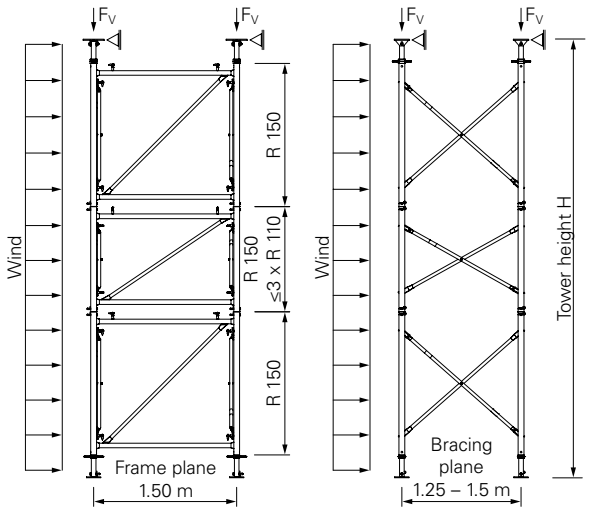


Fig. B3.02

C1 Load-bearing capacities

Operating conditions

- Restrained at the top
- With base restraint
- Frame clearance 1.25 – 1.50 m
- Head and base area exclusively Frame PD 8, R 150
- Centre of Frame PD 8, R 150 or up to 3x Frames R 110 possible
- For tower heights H ≥ 5.0 m

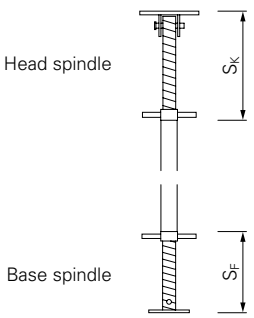


Perm. leg load for frame clearance 1.25 – 1.50 m [kN] as per EN 12812									
Wind load / Tower height	$S_K \leq 20$ cm and $S_F \leq 30$ cm			$S_K \leq 20$ cm and $S_F \leq 50$ cm			$S_K \leq 20$ cm and $S_F \leq 80$ cm		
	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²
5.0 m	72.9	70.0	69.5	64.6	62.8	58.9	52.0	44.5	37.8
5.5 m	72.3	69.8	69.1	64.5	62.3	57.9	51.8	43.4	36.6
6.0 m	71.7	69.5	68.7	64.4	61.7	57.0	51.7	42.3	35.5
6.5 m	71.0	69.3	68.2	64.2	61.2	56.0	51.5	41.2	34.3
7.0 m	70.4	69.0	67.8	64.1	60.6	55.0	51.3	40.1	33.1
7.5 m	70.6	68.9	64.8	64.2	60.1	52.0	50.7	39.8	32.5
8.0 m	70.9	68.9	61.8	64.2	59.5	49.0	50.2	39.4	31.9
8.5 m	71.1	68.8	58.8	64.3	59.0	46.0	49.6	39.1	31.2
9.0 m	71.3	68.5	56.6	64.3	58.3	45.3	49.0	38.8	30.6
9.5 m	71.1	68.3	54.4	64.1	57.5	44.5	47.5	38.5	29.5
10.0 m	70.9	68.0	52.2	64.0	56.8	43.8	46.0	38.2	28.3
10.5 m	70.6	63.1	47.0	63.8	53.7	40.1	44.4	37.1	27.2
11.0 m	70.4	58.1	41.8	63.6	50.5	36.3	42.9	36.0	26.0
11.5 m	70.4	57.4	39.6	63.6	49.5	34.3	42.4	35.2	24.8
12.0 m	70.5	56.7	37.3	63.6	48.5	32.3	41.9	34.4	23.6
12.5 m	70.5	55.9	35.1	63.6	47.4	30.2	41.3	33.5	22.4
13.0 m	70.5	55.2	32.8	63.6	46.4	28.2	40.8	32.7	21.2
13.5 m	70.5	53.3	29.8	63.5	45.1	25.6	40.7	32.2	19.8
14.0 m	70.5	51.3	26.9	63.3	43.7	23.1	40.6	31.7	18.5
14.5 m	70.5	49.4	23.9	63.2	42.4	20.5	40.5	31.2	17.1

Spindle configurations

Head spindle:
Spindle Tube TR 48-75/40 with head plate for an extension length of up to $S_K \leq 20$ cm.

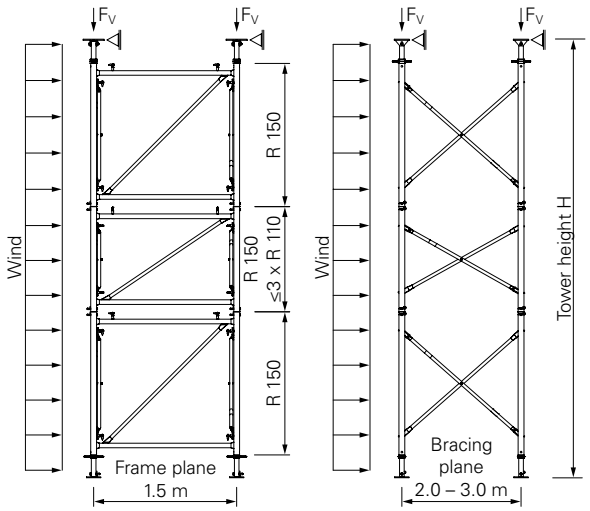
Base spindle:
Spindle Tube TR 48-116/80 with end plate for an extension length of up to $S_F \leq 80$ cm.



C1 Load-bearing capacities

Operating conditions

- Restrained at the top
- With base restraint
- Frame clearance 2.0 – 3.0 m
- Head and base area exclusively Frame PD 8, R 150
- Centre of Frame PD 8, R 150 or up to 3x Frames R 110 possible
- For tower heights H ≥ 5.0 m

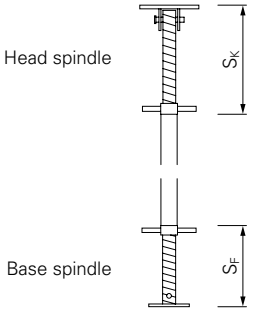


Perm. leg load for frame clearance 2.0 – 3.0 m [kN] as per EN 12812									
Wind load / Tower height	$S_K \leq 20$ cm and $S_F \leq 30$ cm			$S_K \leq 20$ cm and $S_F \leq 50$ cm			$S_K \leq 20$ cm and $S_F \leq 80$ cm		
	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²
5.0 m	72.5	70.0	68.7	67.0	64.6	62.0	58.0	50.1	44.8
5.5 m	72.3	70.1	68.7	66.1	63.6	61.1	57.2	48.7	43.0
6.0 m	72.1	70.2	68.8	65.1	62.7	60.3	56.5	47.2	41.2
6.5 m	71.8	70.3	68.8	64.2	61.7	59.4	55.7	45.8	39.3
7.0 m	71.6	70.4	68.8	63.2	60.7	58.5	54.9	44.3	37.5
7.5 m	71.7	70.3	68.3	63.2	60.2	57.3	54.1	43.8	36.7
8.0 m	71.8	70.2	67.9	63.2	59.7	56.0	53.2	43.3	35.9
8.5 m	71.9	70.1	67.4	63.2	59.2	54.8	52.4	42.8	35.1
9.0 m	72.0	70.0	66.9	63.2	58.7	53.5	51.5	42.3	34.3
9.5 m	71.9	69.9	63.8	63.2	58.2	52.0	50.4	41.6	33.5
10.0 m	71.8	69.8	60.7	63.2	57.6	50.5	49.3	40.9	32.7
10.5 m	71.7	69.6	57.6	63.1	57.1	49.0	48.1	40.1	31.8
11.0 m	71.6	69.5	54.5	63.1	56.5	47.5	47.0	39.4	31.0
11.5 m	71.6	69.3	53.6	63.3	56.1	46.3	46.1	38.3	29.6
12.0 m	71.6	69.0	52.8	63.6	55.7	45.1	45.3	37.2	28.2
12.5 m	71.6	68.8	51.9	63.8	55.2	43.9	44.4	36.0	26.7
13.0 m	71.6	68.5	51.0	64.0	54.8	42.7	43.5	34.9	25.3
13.5 m	71.6	67.9	48.6	63.8	54.7	40.8	43.2	34.6	24.0
14.0 m	71.6	67.3	46.2	63.6	54.5	38.9	42.9	34.3	22.6
14.5 m	71.6	66.7	43.8	63.4	54.4	37.0	42.6	34.0	21.3

Spindle configurations

Head spindle:
Spindle Tube TR 48-75/40 with head plate for an extension length of up to $S_K \leq 20$ cm.

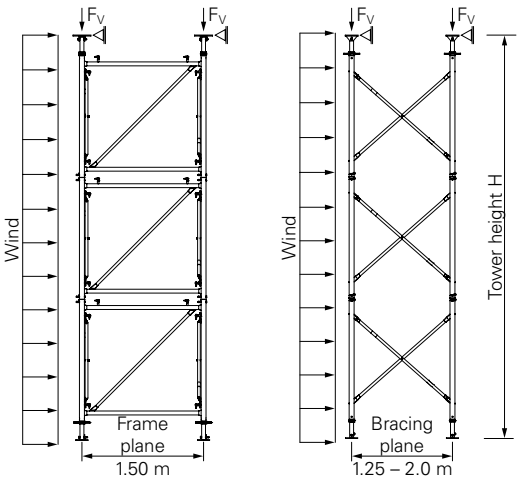
Base spindle:
Spindle Tube TR 48-116/80 with end plate for an extension length of up to $S_F \leq 80$ cm.



C1 Load-bearing capacities

Operating conditions

- Restrained at the top
- With base restraint
- Frame clearance 1.25 – 1.50 m
- Head and base area exclusively Frame PD 8, R 150
- Free arrangement of Frames PD 8, R 110 and R 150

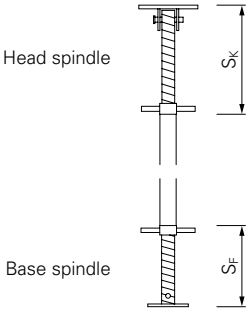


Perm. leg load for frame clearance 1.25 – 2.00 m [kN] as per EN 12812									
Wind load / Tower height	$S_K \leq 30$ cm and $S_F \leq 30$ cm			$S_K \leq 30$ cm and $S_F \leq 50$ cm			$S_K \leq 30$ cm and $S_F \leq 80$ cm		
	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²
4.5 m	55.4	53.3	50.2	51.8	47.9	43.9	41.6	34.8	30.6
5.0 m	55.4	53.2	49.5	52.0	47.4	42.7	42.1	34.7	30.0
5.5 m	55.4	53.1	48.9	52.2	46.8	41.5	42.6	34.6	29.4
6.0 m	55.4	53.1	48.2	52.4	46.3	40.2	43.1	34.5	28.9
6.5 m	55.4	53.0	47.6	52.6	45.7	39.0	43.6	34.4	28.3
7.0 m	55.4	52.9	46.9	52.8	45.2	37.8	44.1	34.3	27.7
7.5 m	55.3	51.7	44.6	52.8	44.1	35.9	44.0	33.6	26.1
8.0 m	55.2	50.6	42.3	52.8	43.0	34.1	43.8	32.8	24.6
8.5 m	55.1	49.4	39.9	52.8	41.9	32.2	43.7	32.1	23.0
9.0 m	55.1	48.2	37.6	52.8	40.9	30.3	43.6	31.3	21.4
9.5 m	55.0	47.0	35.3	52.8	39.8	28.4	43.4	30.6	19.8
10.0 m	54.9	45.9	33.0	52.8	38.7	26.6	43.3	29.8	18.3
10.5 m	54.8	44.7	30.6	52.8	37.6	24.7	43.1	29.1	16.7
11.0 m	54.7	43.5	28.3	52.8	36.5	22.8	43.0	28.3	15.1
11.5 m	54.7	42.3	25.5	52.7	34.8		42.7	27.3	
12.0 m	54.7	41.0	22.7	52.6	33.1		42.3	26.2	
12.5 m	54.7	39.8	19.8	52.5	31.4		42.0	25.2	
13.0 m	54.6	38.5	17.0	52.5	29.6		41.6	24.2	
13.5 m	54.6	37.3	14.2	52.4	27.9		41.3	23.2	
14.0 m	54.6	36.0		52.3	26.2		40.9	22.1	
14.5 m	54.6	34.8		52.2	24.5		40.6	21.1	

Spindle configurations

Head spindle:
Cross Head Spindle TR 48-75/47 or
Spindle Tube TR 48-75/40 with head plate for an extension length of up to $S_K \leq 30$ cm.

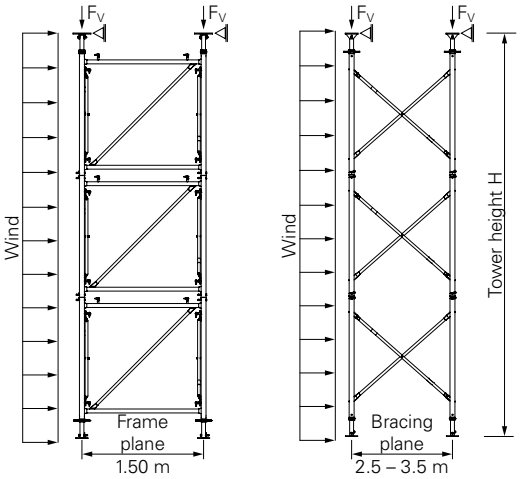
Base spindle:
Spindle Tube TR 48-75/40 with end plate or
Spindle Tube TR 48-116/80 for an extension length of up to $S_F \leq 50$ cm.
Spindle Tube TR 48-116/80 for an extension length of up to $S_F \leq 80$ cm.



C1 Load-bearing capacities

Operating conditions

- Restrained at the top
- With base restraint
- Frame clearance 2.5 – 3.5 m
- Head and base area exclusively Frame PD 8, R 150
- Free arrangement of Frames PD 8, R 110 and R 150

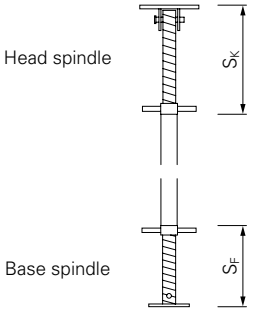


Perm. leg load for frame clearance 2.50 – 3.50 m [kN] as per EN 12812									
Wind load / Tower height	$S_K \leq 30$ cm and $S_F \leq 30$ cm			$S_K \leq 30$ cm and $S_F \leq 50$ cm			$S_K \leq 30$ cm and $S_F \leq 80$ cm		
	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²	0.0 kN/m²	0.5 kN/m²	0.8 kN/m²
4.5 m	55.4	53.3	51.7	51.5	49.8	46.7	44.2	37.8	33.5
5.0 m	55.4	53.3	51.2	51.7	49.4	45.4	44.5	37.4	32.6
5.5 m	55.4	53.2	50.8	51.9	49.0	44.1	44.8	37.0	31.7
6.0 m	55.4	53.2	50.3	52.1	48.6	42.8	45.0	36.7	30.9
6.5 m	55.4	53.1	49.9	52.3	48.2	41.5	45.3	36.3	30.0
7.0 m	55.4	53.1	49.4	52.5	47.8	40.2	45.6	35.9	29.1
7.5 m	55.3	52.5	47.5	52.5	46.7	38.4	45.6	35.2	27.6
8.0 m	55.2	51.9	45.7	52.5	45.6	36.6	45.6	34.5	26.2
8.5 m	55.1	51.3	43.8	52.5	44.5	34.7	45.6	33.8	24.7
9.0 m	55.0	50.8	42.0	52.5	43.4	32.9	45.6	33.1	23.3
9.5 m	54.9	50.2	40.1	52.4	42.2	31.1	45.5	32.4	21.8
10.0 m	54.8	49.6	38.2	52.4	41.1	29.3	45.5	31.7	20.3
10.5 m	54.7	49.0	36.4	52.4	40.0	27.4	45.5	31.0	18.9
11.0 m	54.6	48.4	34.5	52.4	38.9	25.6	45.5	30.3	17.4
11.5 m	54.6	46.6	32.2	52.4	38.1		45.0	29.5	
12.0 m	54.5	44.7	30.0	52.4	37.3		44.5	28.7	
12.5 m	54.5	42.9	27.7	52.4	36.5		44.0	27.9	
13.0 m	54.4	41.0	25.5	52.4	35.8		43.6	27.1	
13.5 m	54.4	39.2	23.2	52.4	35.0		43.1	26.3	
14.0 m	54.3	37.3	21.0	52.4	34.2		42.6	25.5	
14.5 m	54.3	35.5	18.7	52.4	33.4		42.1	24.7	

Spindle configurations

Head spindle:
Cross Head Spindle TR 48-75/47 or
Spindle Tube TR 48-75/40 with head plate for an extension length of up to $S_K \leq 30$ cm.

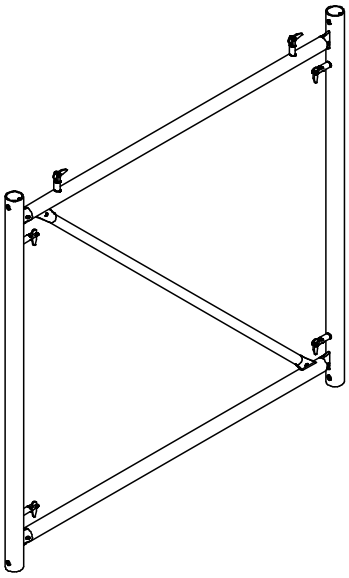
Base spindle:
Spindle Tube TR 48-75/40 with end plate or
Spindle Tube TR 48-116/80 for an extension length of up to $S_F \leq 50$ cm.
Spindle Tube TR 48-116/80 for an extension length of up to $S_F \leq 80$ cm.

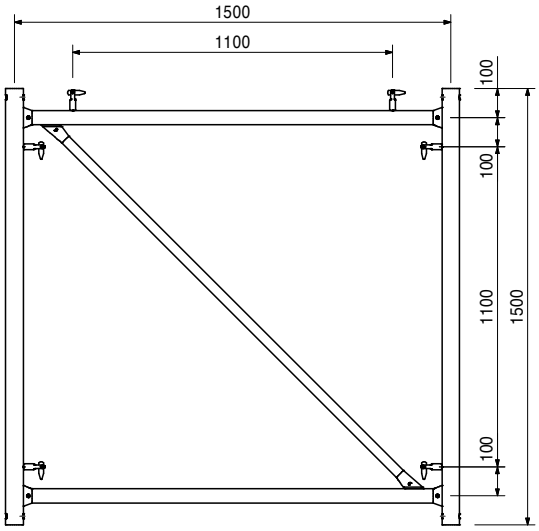


Item. no.	Weight kg	
		Frame PD 8, galv.
018510	32.600	**Frame PD 8, R 150, galv.**
018520	27.100	**Frame PD 8, R 110, galv.**

Base frame for the PD 8 Slab Table, Shoring- and Stair Tower.

Note
See PERI Design Tables for permissible load.



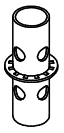


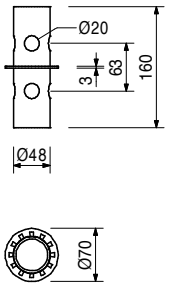
Accessories

018140	0.550	**Connector with washer, galv.**

018140	0.550	**Connector with washer, galv.**

For connecting PD 8/PD 8 Eco Frame R 180, R 150 and R 110, as well as the PD 5 Frame R150 and R100.



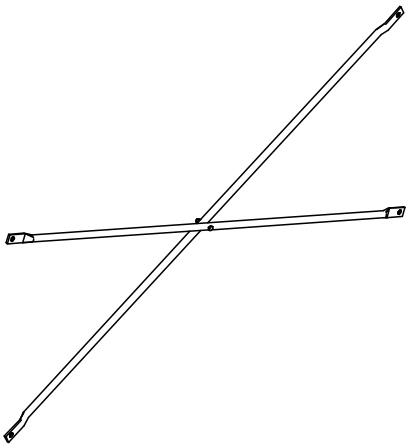


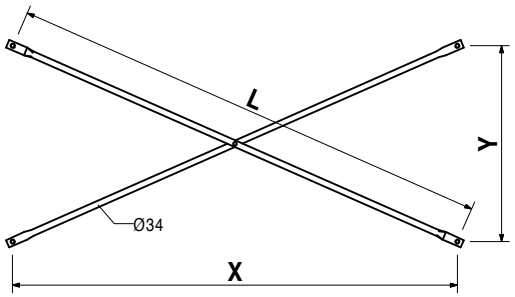
Accessories

018050	0.171	**Bolt Ø 16 x 65/86, galv.**
018060	0.014	**Cotter pin 4/1, galv.**

Item. no.	Weight kg		L	X	Y
		Diagonal Brace DK, galv.			
018150	7.530	**Diagonal Brace DK 125, galv.**	1665	1250	1100
018160	8.390	**Diagonal Brace DK 150, galv.**	1860	1500	1100
018170	10.200	**Diagonal Brace DK 200, galv.**	2282	2000	1100
018180	12.200	**Diagonal Brace DK 250, galv.**	2731	2500	1100
018190	14.300	**Diagonal Brace DK 300, galv.**	3195	3000	1100
018200	16.400	**Diagonal Brace DK 350, galv.**	3668	3500	1100

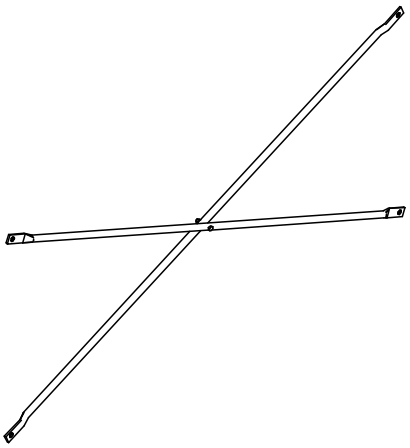
For bracing PD 8 Slab Tables.
Frame combination R 150 + R 150 or R 150 + R 110.

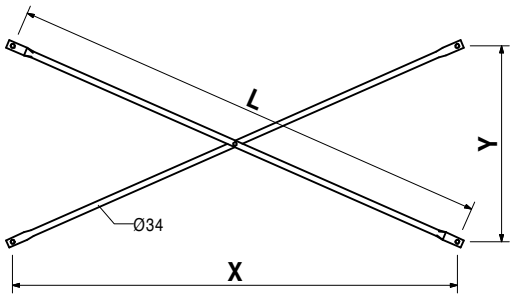




			L	X	Y
		Diagonal Brace DK, frame comb. R 110			
019150	6.510	**Diagonal Brace DK 125/110, galv.**	1433	1250	700
019160	7.490	**Diagonal Brace DK 150/110, galv.**	1655	1500	700
019170	9.550	**Diagonal Brace DK 200/110, galv.**	2118	2000	700
019180	11.600	**Diagonal Brace DK 250/110, galv.**	2596	2500	700
019190	13.800	**Diagonal Brace DK 300/110, galv.**	3080	3000	700

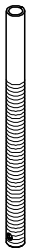
For bracing PD 8 Frames with the combination R 110 + R 110.

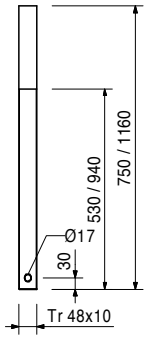




Item. no.	Weight kg	
		Spindle Tubes TR 48, galv.
018120	4.400	**Spindle Tube TR 48-75/40, galv.**
018030	6.820	**Spindle Tube TR 48-116/80, galv.**

As a base or head spindle for the Systems PD 8 and Flex Plus shoring.



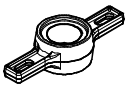


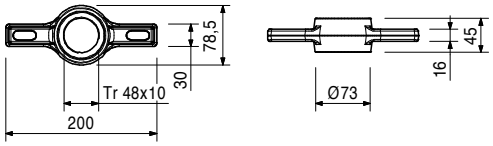
Accessories

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

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

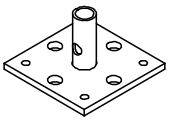
For spindles Ø 48 mm; with additional groove.

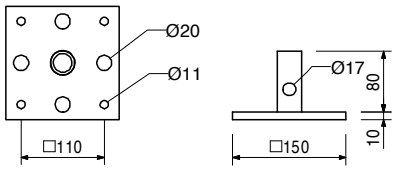




018070	1.770	**Base plate for Spindle Tube TR 48**

Base plate for Spindle Tube TR 48 and Foot Tube FR 80.

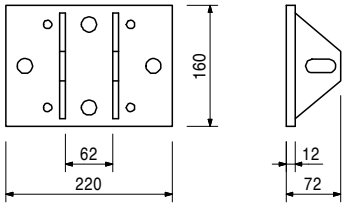




Accessories

018050	0.171	**Bolt Ø 16 x 65/86, galv.**
018060	0.014	**Cotter pin 4/1, galv.**

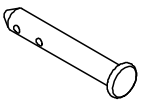
Item. no.	Weight kg		
018040	3.770	**Head plate for Spindle Tube TR 48**	**Note** In conjunction with the cap piece, it can be tilted 2.1 % in any direction.

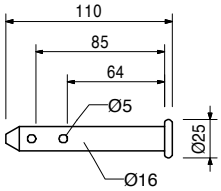


Accessories

018050	0.171	**Bolt Ø 16 x 65/86, galv.**
018060	0.014	**Cotter pin 4/1, galv.**
019660	0.288	**Cap piece, galv.**

018050	0.171	**Bolt Ø 16 x 65/86, galv.** For diverse connections.



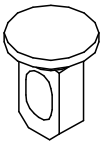


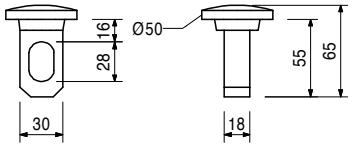
Accessories

018060	0.014	**Cotter pin 4/1, galv.**

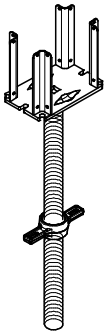
018060	0.014	**Cotter pin 4/1, galv.**

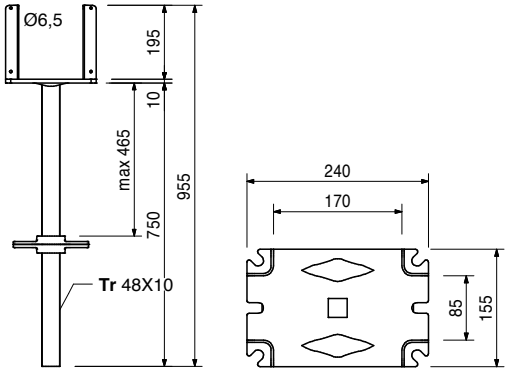
019660	0.288	**Cap piece, galv.** For centric load distribution. Allows 2.1 % tilting of the head plate.





Item. no.	Weight kg		
018630	9.580	**Cross Head Spindle TR 48-75/47, galv.** Head spindle for the PD 8 Systems and Flex Plus shoring.	**Complete with** 1 x 018270 Quick Jack Nut TR 48, galv.

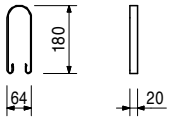




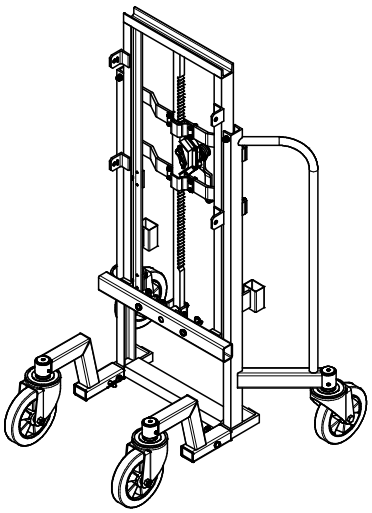
Accessories

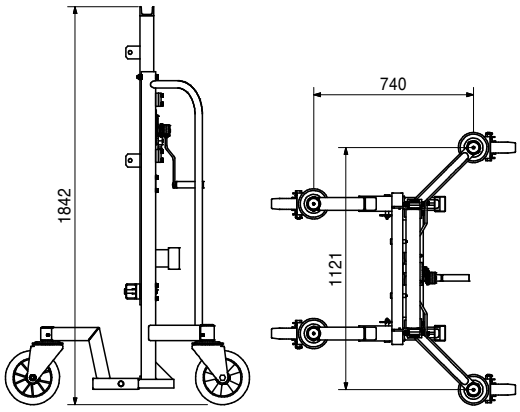
028590	0.568	**Tension strap for twin main beam, 16-25, galv.**

116767	0.144	**Safety Strap for PD 8 Table** For securing base and head spindles on the PD 8 slab table, yellow chromated.	**Technical data** Permissible load-bearing capacity 300 kg.



019200	162.000	**Trolley and Winch Unit** For moving towers and tables with MULTIPROP, PERI UP Flex, PERI UP Flex Plus, PERI UP Flex MDS K and PD 8 with respective support for the system.	**Note** Observe Instructions for Use! **Technical data** Permissible load-bearing capacity 1.0 t.

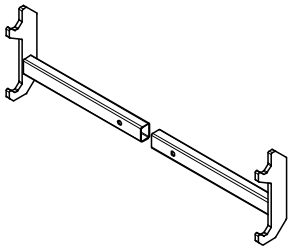


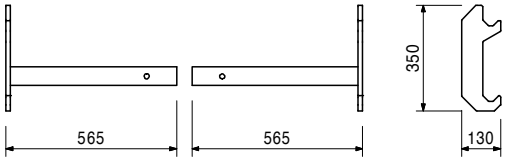


Accessories

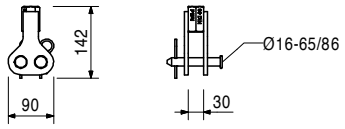
118114	14.200	**Support MP - Trolley**
130501	27.100	**Support PERI UP - Trolley**
118605	21.500	**Support Rosette - Trolley**
117954	21.200	**Support Rosette Plus - Trolley**
118115	11.000	**Support PD 8 - Trolley**

Item. no.	Weight kg		
118115	11.000	**Support PD 8 - Trolley** For relocating the PD 8/PD 8 Eco Systems using the trolley with winch unit.	**Note** Consisting of left and right support (2 parts).

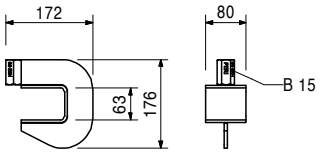




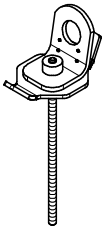
019070	1.400	**Crane lifting unit, lower part - PD 8** To relocate PERI Slab Tables PD 8 with Main Beam SRZ.	**Complete with** 2 pc. 018060 cotter pin 4/1, galv. 1 pc. 018050 bolt Ø 16 x 65/86, galv. **Technical data** Permissible load-bearing capacity of the lifting point: 0.5 t.

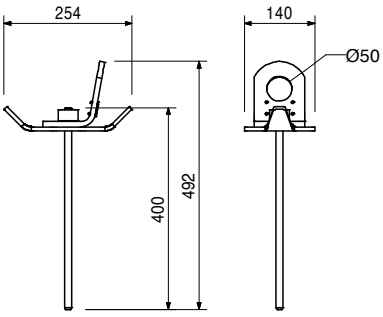


028560	1.830	**Crane lifting unit, lower part - UNIPORTAL** To relocate PERI Slab Tables with Main Beam GT 24.	

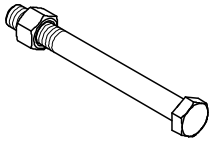


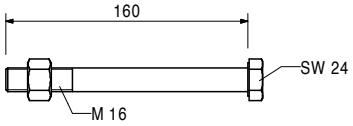
028570	3.510	**Crane lifting unit, upper part** To relocate PERI Slab Tables with Main Beam GT 24. Attachment point to fold the working platform.	**Note** Observe Instructions for Use! **Technical data** Permissible load-bearing capacity 0.5 t with a crane sling angle of ≤ 30°.



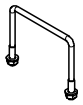


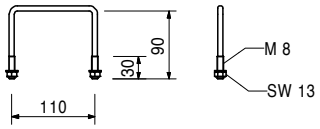
Item. no.	Weight kg	
018350	0.310	**Bolt ISO 4016 M16 x 160-4.6 MU, galv.**



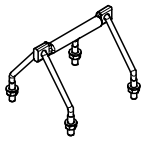


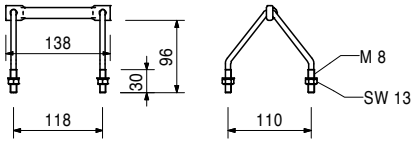
024060	0.107	**Girder Strap TB, galv.** For mounting main beams on the Head Plate PD 8.



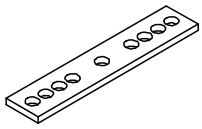


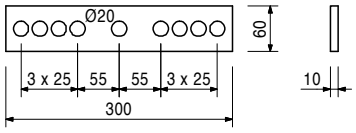
024010	0.338	**Double Girder Strap DTB, galv.** For mounting main beams on the Head Plate PD 8.



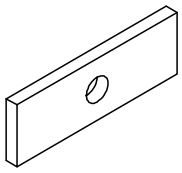


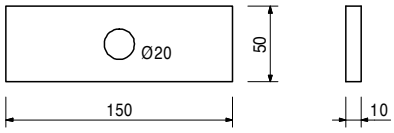
018600	1.190	**Yoke plate, galv.**





018300	0.564	**Cross strap, galv.** For fastening Steel Walers SRZ and SRU to the Pivoting Head Spindle TR 38.

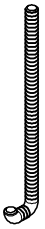


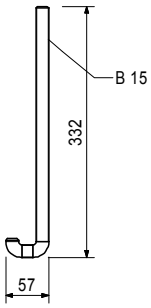


Accessories

018350	0.310	**Bolt ISO 4016 M16 x 160-4.6 MU, galv.**

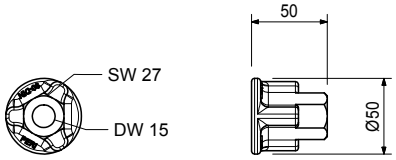
Item. no.	Weight kg	
018610	0.550	**Yoke Clamp 24**



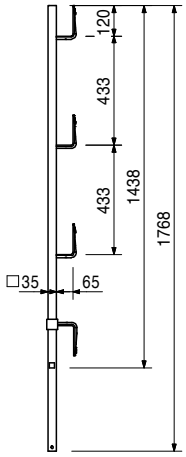


030130	0.318	**Cam nut DW 15, galv.** For anchoring with Tie Rod DW 15 and B 15.

Technical data
Permissible load 90 kN.

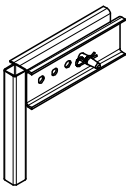


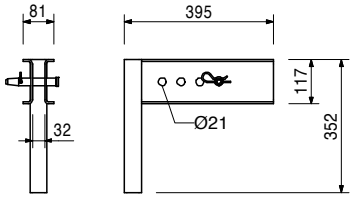
061260	6.150	**Guardrail Post SGP** As guardrails for various systems.



101290	5.670	**Guardrail Holder GT 24/VT 20** For fitting a guardrail onto Girder GT 24 and VT 20.

Complete with
1 pc. 105400 bolts Ø 20 x 140, galv.
1 pc. 018060 cotter pin 4/1, galv.





Accessories

116292	4.720	**Guardrail Post HSGP-2**
061260	6.150	**Guardrail Post SGP**

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