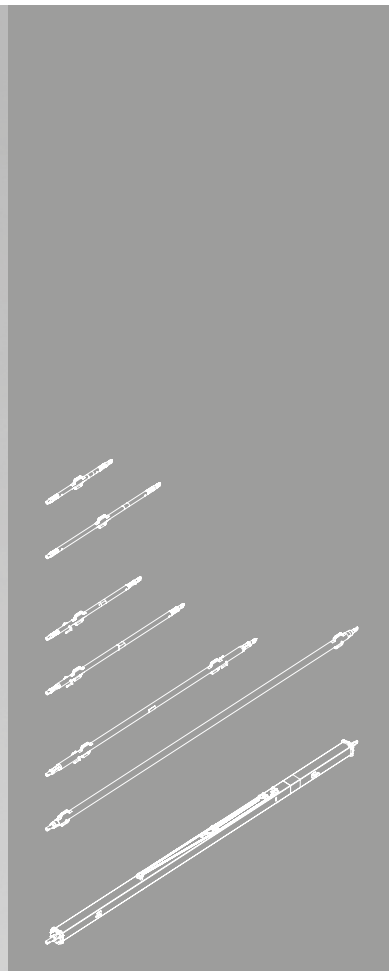


RS and RSS Push-Pull Props

Instructions for Assembly and Use – Standard Configuration – Issue 7/2020



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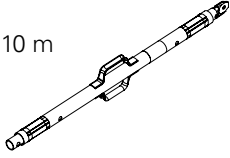
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RS main components

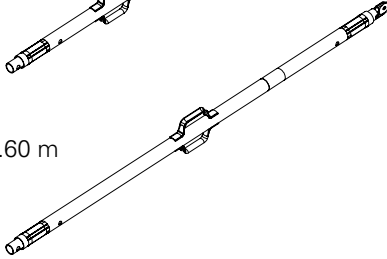
RS 210

L = 1.30 – 2.10 m



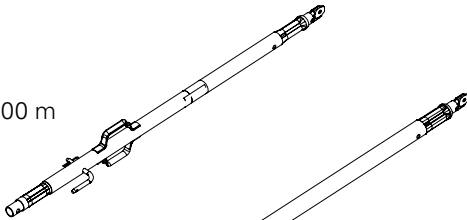
RS 260

L = 2.30 – 2.60 m



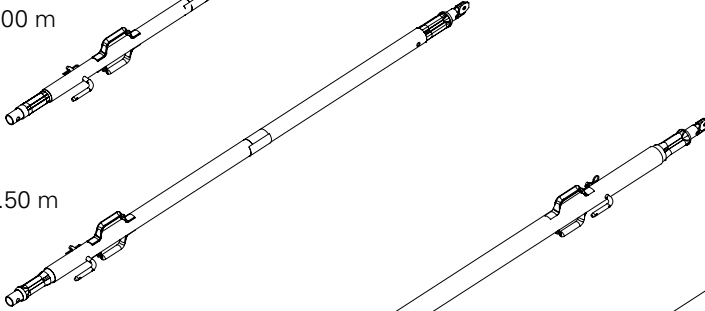
RS 300

L = 1.90 – 3.00 m



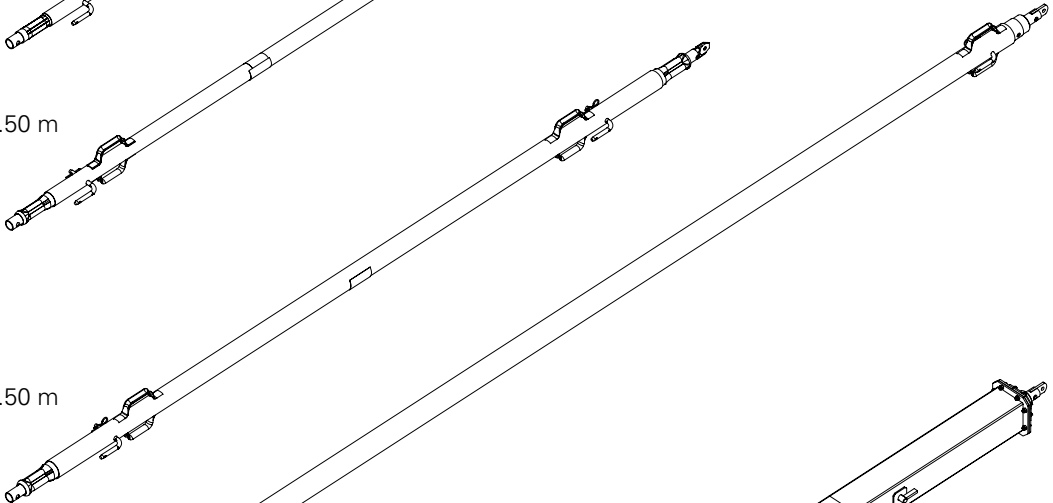
RS 450

L = 2.80 – 4.50 m



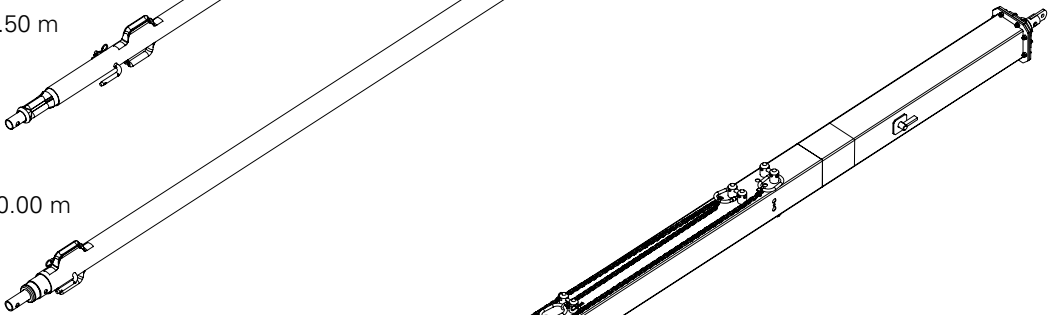
RS 650

L = 4.30 – 6.50 m



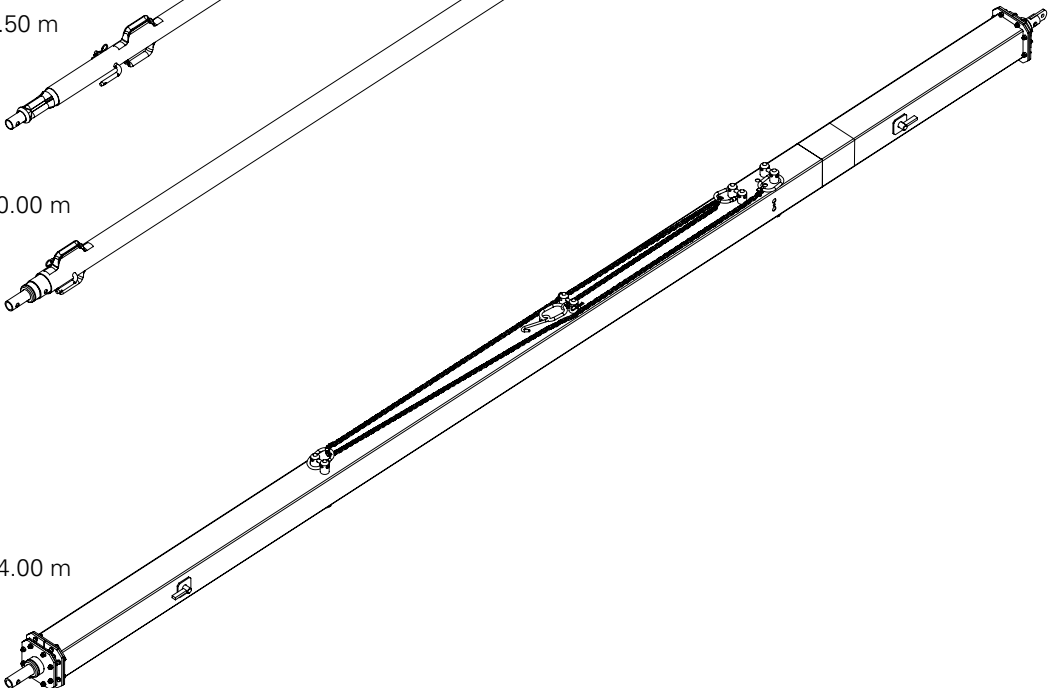
RS 1000

L = 6.40 – 10.00 m



RS 1400

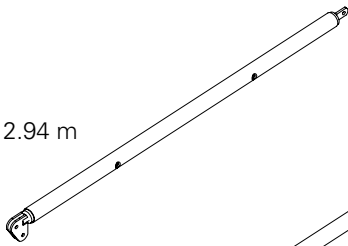
L = 6.40 – 14.00 m



RSS and AV main components

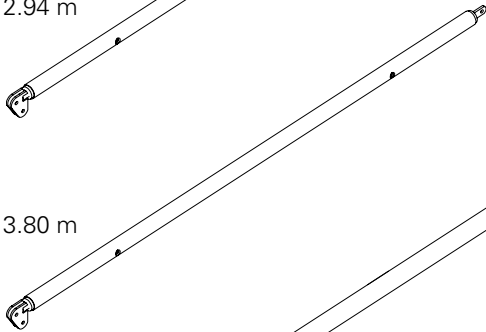
RSS I

L = 2.05 – 2.94 m



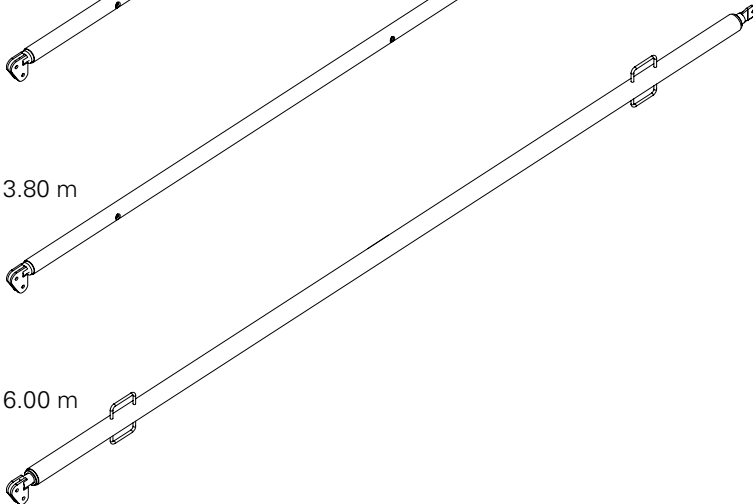
RSS II

L = 2.91 – 3.80 m



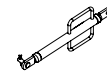
RSS III

L = 4.60 – 6.00 m



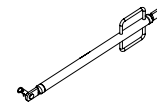
AV 82

L = 0.50 – 0.82 m



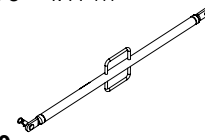
AV 111

L = 0.79 – 1.11 m



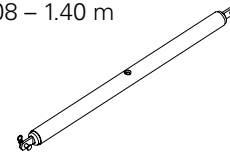
AV 140

L = 1.08 – 1.40 m



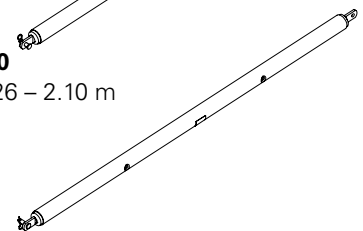
AV 210

L = 1.26 – 2.10 m



AV RSS III

L = 2.03 – 2.92 m



Classification of push-pull prop connections

System	Walls	Column	Push-pull prop connections		
			in the system		on the ground
			Item no.	RS Item no.	RSS Item no.
MAXIMO	x		023660	126666	306000**
	x		134623		
	x		126540		
TRIO	x	x	023660		
DOMINO	x		127628		
LIWA	x		125329		
	x		117169		
GT 24/RUNDFLEX	x	x	028050		
	x	x	028070		
DUO	x		128294		
UNO	x	x	123559		
RAPID		x	037190		
QUATTRO		x	037530		
LICO		x	037530		
SRS		x	–		
RUNDFLEX Plus-2		x	–		
MULTIPROP	Slab Prop MP		129565		
	Alu Beam MPB 24		108213		
Tubes	Main Beam HDT HDR		028080		
GT 24/VARIOKIT	Steel Waler SRZ/SRU		028060		

** Discontinued items

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)

Arrows



Arrow representing an action



Arrow representing a reaction of an action*



Arrow representing forces

* If not identical to the action arrow.

Safety instruction categories

The safety instructions alert site personnel to the risks involved and provide information on how to avoid these risks. Safety instructions 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, e.g. (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.

Target groups

Contractors

These Instructions for Assembly and Use are designed for contractors who either

- assemble, modify and dismantle the formwork systems, or
- use them, e.g. for concreting, or
- allow them to be used for other operations, e.g. carpentry or electrical work.

Competent person

(Construction Site Coordinator)

The Safety and Health Protection Coordinator

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

Competent persons qualified to carry out inspections

Due to the specialist knowledge gained from professional training, 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

Formwork systems may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. Qualified personnel must have completed a course of training* in the work to be performed, covering the following points at least:

- Explanation of the plan for the assembly, modification or dismantling of the formwork in an understandable form and language.
- Description of the measures for assembling, modifying or dismantling the formwork.

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

- Naming of the preventive measures to be taken to avoid the risk of persons and objects falling.
- Naming of the safety precautions in the event of changing weather conditions which could adversely affect the safety of the formwork system as well as the persons concerned.
- Details regarding permissible loads.
- Description of all other risks and dangers associated with assembly, modification or dismantling operations.



- **Ensure that the relevant national guidelines and regulations in the respective current version are complied with!**
- **A competent person must be present on site during formwork operations.**

Additional technical documentation

- Instructions for Assembly and Use:
 - Wall formwork
 - MAXIMO
 - TRIO
 - DOMINO
 - LIWA
 - VARIO GT 24
 - DUO
 - UNO
 - Column formwork
 - TRIO
 - VARIO GT 24
 - RAPID
 - QUATTRO
 - LICO
 - SRS
 - RUNDFLEX
 - RUNDFLEX Plus-2
 - Other systems
 - MAXIMO System Supplement
 - MAXIMO MXK Bracket System
 - MULTIPROP
 - PERI UP
 - PERI UP Flex Heavy-Duty Prop HD
 - VARIODECK
 - HD 200 Heavy-Duty Prop
 - VARIOKIT VGK Cantilevered Parapet Bracket
- Instructions for Use:
 - Pallets and stacking devices
 - Lifting Hook MAXIMO 1.5 t
 - Lifting Gear Combi MX
 - Lifting Gear MX
 - Concrete cones
 - PERI Bio Clean
- Technical Data Sheet for Anchor Bolt PERI 14/20 x 130
- Design Tables 2015 – Formwork and Shoring
- Design Tables PERI UP
- Brochure: RS Push-Pull Props

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 are based on the approval, type test and static calculation.

Push-pull props:

- support formwork systems, scaffolding systems and prefabricated concrete elements vertically, and thus prevent them from falling over.
- transfer tension and compression forces.
- transfer wind loads.

Quick connector head:

With the Quick Connector Head RS and Adapter RS, push-pull props can be fixed to prefabricated concrete elements. The adapter tightly connects (friction-locked) the Quick Connector Head RS and push-pull prop. Fix corresponding fastener, e.g. screw-in sleeves, bolts or permissible pigtail anchors, to horizontal prefabricated elements. The position and quantity of fasteners are calculated according to project specifications.

Do not use the quick connector head with Push-Pull Props RSS.

Connecting part

- for the formwork is the respective quick connector head.
- for the push-pull prop is the quick connector head adapter.

These Instructions for Assembly and Use describe the standard configuration of the Push-Pull Props RS and the alternative Push-Pull Props RSS with Kicker Braces AV.

With the RS Push-Pull Prop system, the Push-Pull Props RS are also mounted as kicker braces.

With the RSS Push-Pull Prop system, the Kicker Braces AV are mounted as kickers.

Features

- Safe and fast handling.
- Extensible – rough adjustment of the push-pull props in 10 cm increments. Exception: RS 1400 extensible in 20 cm increments.
- Fine adjustments – by means of the thread on the outer tube of the push-pull prop.
- Very long service life due to the hard-wearing corrosion protection.
- Low maintenance costs.
- Push-Pull Props RS can also be used as kicker braces.

Standard configuration

- | | |
|-----------|--------------------|
| ■ RS 210 | L = 1.30 – 2.10 m |
| ■ RS 260 | L = 2.30 – 2.60 m |
| ■ RS 300 | L = 1.90 – 3.00 m |
| ■ RS 450 | L = 2.80 – 4.50 m |
| ■ RS 650 | L = 4.30 – 6.50 m |
| ■ RS 1000 | L = 6.40 – 10.00 m |
| ■ RS 1400 | L = 6.40 – 14.00 m |

The following are shown:

- RS 210, RS 450, RS 650 in Section A2.
- RS 1400 in Section A3.

Alternative push-pull props

- | | |
|-----------|-------------------|
| ■ RSS I | L = 2.05 – 2.94 m |
| ■ RSS II | L = 2.91 – 3.80 m |
| ■ RSS III | L = 4.60 – 6.00 m |

RSS II is shown in Section A4.

Kicker Braces AV

- AV 82, AV 111, AV 140
- AV 210
- AV RSS III

AV 140 is shown in Section A4.

Instructions for Use

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

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

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

In order to maintain the value and operational readiness of the formwork materials over the long term, clean the panels after each use.

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

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

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

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

When used continuously, spray the panel formlining with concrete release agent immediately after striking; then clean by means of a scraper, brush or rubber lip scraper.

Important: do not clean formlining made of plywood with high-pressure equipment. This could result in the formlining being damaged.

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

Close all unused tie holes with plugs; this eliminates any subsequent cleaning or repair work.

Tie holes accidentally blocked with concrete are cleared by means of a steel pin from the formlining side.

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

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

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

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

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

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

Do not clean components suspended on crane lifting gear.

Cross-system



Safety instructions apply to all 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 $\varnothing 48.3 \times 3.2$ 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 formwork 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 formwork 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 formwork 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 formwork systems may only be carried out by qualified persons under the supervision of a competent person. The qualified personnel must have received appropriate training for the work to be carried out with regard to specific risks and dangers.

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



The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the formwork system, e.g.

- 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 formwork systems to be used, is responsible for ensuring that the equipment is in good condition.

If the formwork 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.

Always secure all bolts with cotter pins.

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

During striking, do not tear off the formwork elements with the crane.

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

Anchoring

Anchoring / base plates are only to be used if the anchorage has sufficient concrete strength.

Exceptional events

For unfavourable structure geometries or larger wind speeds, additional securing measures are to be implemented, e.g.:

- ballast,
- bracing,
- dismantling the formwork etc.

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. crate pallets, pallets or stacking devices.

Pallets

Pallets are one possibility for storing and transporting push-pull props. (Fig. A1.01)



- Use lifting gear combi or 4-sling lifting gear.
On each pallet, attach a hook (12a) to one load-bearing point (1a).
→ Four load-bearing points per pallet. (Fig. A1.01)
- Follow Instructions for Use for pallets and stacking devices.

The pallets are available in two different sizes:

Item	Pallet	Item No.
1.1	RP-2 80 x 120	103434
1.2	RP-2 80 x 150	103429



Pallets (1.1/1.2) can be lifted using the longitudinal as well as the front sides. (Fig. A1.01)

Perm. load-bearing capacity of the pallets

- RP-2 80 x 120: 1.5 t
- RP-2 80 x 150: 1.5 t

Crane sling angle $\leq 15^\circ$

4-sling lifting gear: length $L = 3.0$ m.



Push-pull props of the same type and size can also be placed one above the other between timbers and secured by means of steel bands.

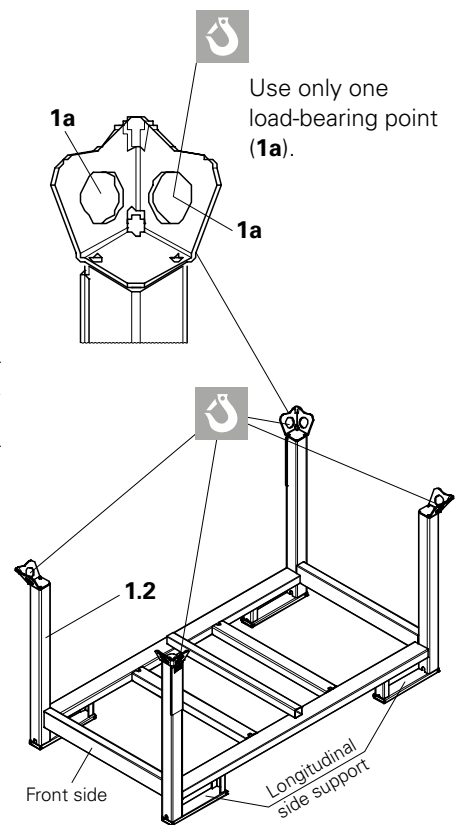


Fig. A1.01

RS Push-Pull Props

In the following table, RS Push-Pull Props with the respective loading equipment and the number of push-pull props per loading equipment are defined taking into account the permissible load-bearing capacity of the pallets.

Push-pull prop	Item no.	Load carrier	max. no. of items/pallet = width x height	Work aids
RS 210	117466	RP-2 80 x 120	55 = 11 x 5	Timber, steel band
RS 260	118238	RP-2 80 x 150	55 = 11 x 5	Timber, steel band Layers stacked offset
RS 300	117467	RP-2 80 x 150	50 = 10 x 5	Timber, steel band
RS 450	117468	RP-2 80 x 150	45 = 9 x 5	Timber, steel band Layers stacked offset (Fig. A1.02)
RS 650	117469	RP-2 80 x 150	24 = 6 x 4	Timber, steel band
RS 1000	028990	RP-2 80 x 150	12 = 6 x 2	3x timbers per level (fit 1x centre and 2x outside of the pallet), Steel band
RS 1400	103800	RP-2 80 x 150	5 = 5 x 1	3x timbers per level (fit 1x centre and 2x outside of the pallet), Steel band (Fig. A1.03 + A1.03a)

RS 450

Stacked push-pull props in one pallet.
(Fig. A1.02)

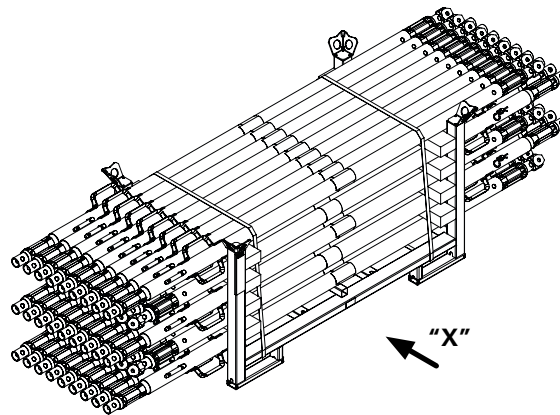


Fig. A1.02



Attention:
with the Push-Pull Props RS 450, the protrusion of the push-pull props is uneven due to the handle. As a result, the centre of gravity of the load is not in the middle. Therefore, ensure that the layers are stacked in an offset arrangement. (Fig. A1.02a)

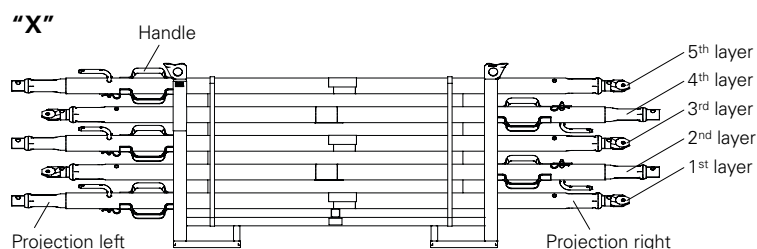


Fig. A1.02a

RS and RSS Push-Pull Props

Instructions for Assembly and Use – Standard Configuration

RS 1400

Stacked push-pull props in one pallet.
(Fig. A1.03 + A1.03a)



For moving individual push-pull props,
see Section A3.

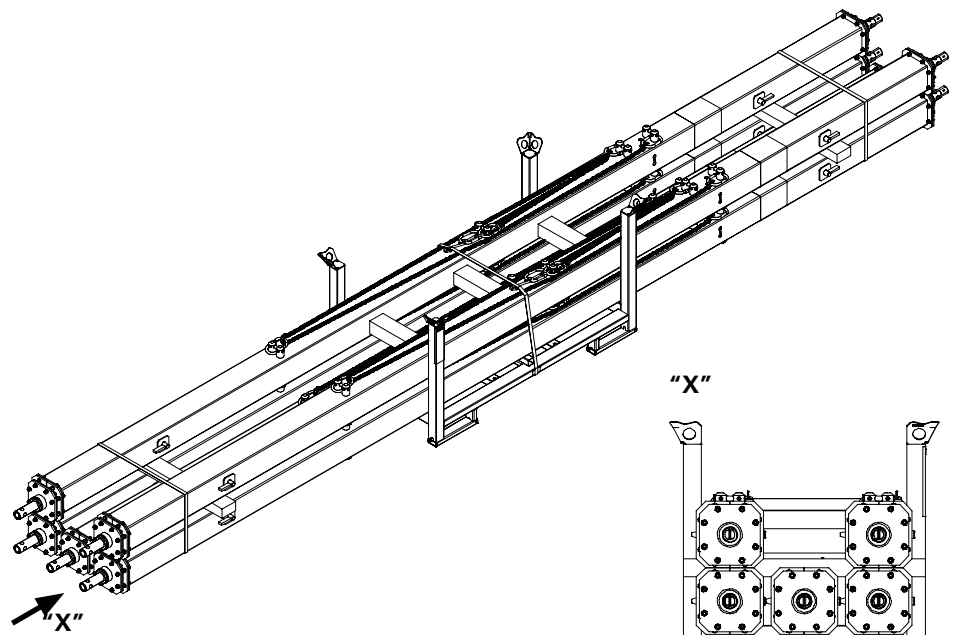


Fig. A1.03

Fig. A1.03a

RSS Push-Pull Props

Push-pull prop	Item no.	Load carrier	max. no. of items/ pallet = width x height	Work aids
RSS I	328010**	RP-2 80 x 150	54 = 9 x 6	Place timbers between every layer and secure with steel bands.
RSS II	328020**	RP-2 80 x 150	54 = 9 x 6	
RSS III	328030**	RP-2 80 x 150	38 = 8 x 4 + 6 (Fig. A1.04)	

RSS III

Stacked push-pull props in one pallet.
(Fig. A1.04)

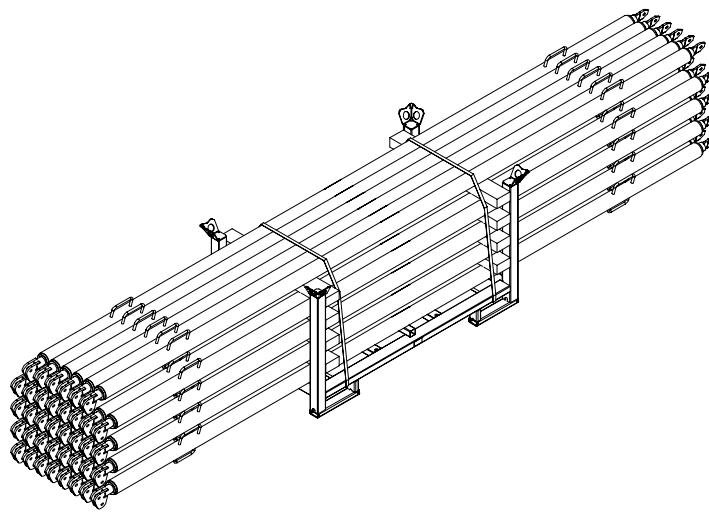


Fig. A1.04

Kicker Braces AV

Kicker brace	Item no.	Load carrier	max. no. of items/ pallet = width x height	Work aids
AV 82	057087	Crate Pallet K	200	
AV 111	057088	Crate Pallet K	200	
AV 140	028110	Crate Pallet K	144 – stacked	Cover plate, steel band
AV 210	408135**	RP-2 80 x 120	54 = 9 x 6	Place timbers between every layer and secure with steel bands
AV RSS III	328120**	RP-2 80 x 150	54 = 9 x 6	

** Discontinued items


General



Danger

Anti-rotation device missing!

Without an anti-rotation device, the prop may be pulled out too far, causing it to lose its propping capability. This could result in serious, irreversible injuries or even death.

- ⇒ Make sure that the splint/dowel pin in the inner tube is fitted all the way into the cantilever (**A**). Check this every time before use.
- ⇒  Use a suitable light source for this, e.g. torch (Fig. A2.01 + A2.02)



Danger

If the anti-rotation device is damaged, it is possible to completely unscrew the push-pull prop, causing it to lose its propping capability.

This could result in serious, irreversible injuries or even death.

- ⇒ If you come up against resistance, do not forcefully overtighten the push-pull prop.
- ⇒ Maintain the maximum extension length of the push-pull props.

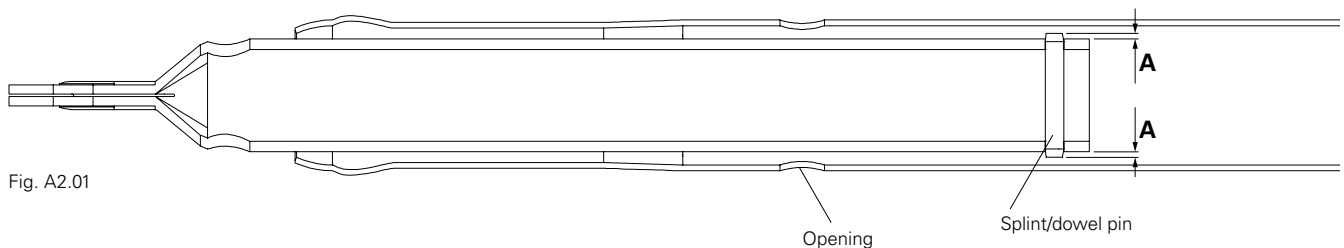


Fig. A2.01

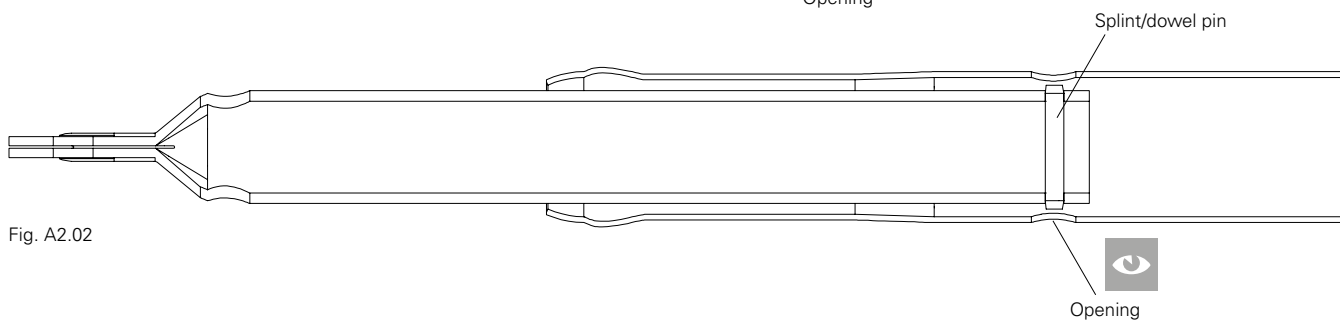


Fig. A2.02



If you sense resistance when unscrewing the push-pull prop, do not forcefully unscrew the push-pull prop with a lever or hammer. (Fig. A2.03 + A2.04)

Establish the cause of resistance.

The following examples may be the cause of resistance:

- The push-pull prop is damaged, replace the push-pull prop.
- The push-pull prop is at the extraction limit, use a longer push-pull prop.
- The prop base is too far away from the formwork requiring support, move the prop base.
- The formwork requiring support is stuck.

Uniformly unscrew each push-pull prop lengthwise at the top/bottom. No side may be unscrewed for longer than the other side. The splint/dowel pin in the inner tube acts as an anti-rotation device.

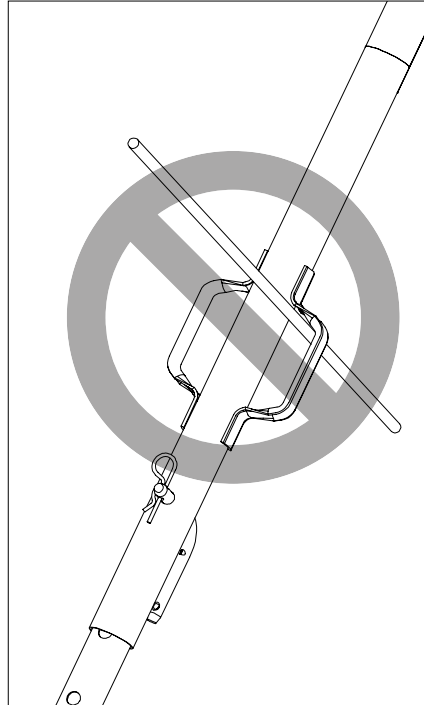


Fig. A2.03

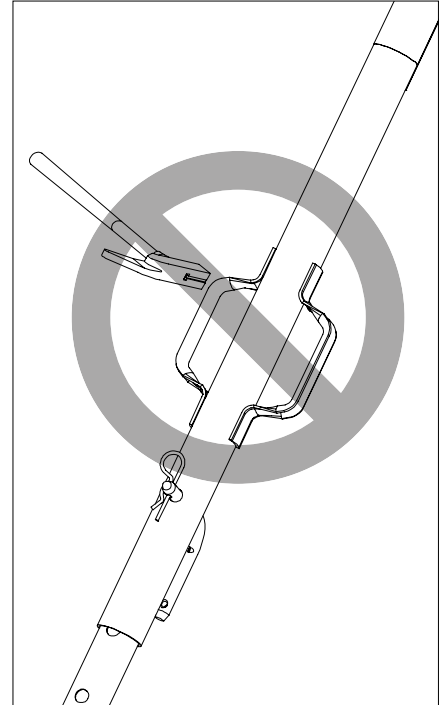


Fig. A2.04



The size and number of push-pull props depends on the forces to be transferred, and must be determined in a product-specific manner.

For load-bearing capacities, see Section B1.

- Rough adjustment of the length
 - Rough adjustments on Push-Pull Props RS 210 and RS 260 are not possible.
 - Rough adjustments on Push-Pull Props RS 300 and RS 450 are possible on one side.
 - Rough adjustments on Push-Pull Props RS 650 and RS 1000 are possible on both sides.
- Adjustments should be made as symmetrically as possible.
- Fine adjustment of the length
 - All push-pull props can be adjusted with the spindle handle on the outer tube; in the process, the threaded spindles move simultaneously at the top and bottom.

Adjusting the length



Hole spacing for the adjustment: 10 cm increments.

1. Rough adjustment at bottom
 - Remove cotter pins **(1)** and bolts **(2)**.
 - Pull out the inner tube until the required length is reached. Ensure that the holes are congruent.
 - Secure the tubes with bolts and cotter pins.
2. Rough adjustment at top, length-wise symmetrical to the bottom.
3. Turn the push-pull prop with the spindle handle.
 - Fine adjustment on both sides by means of the thread – top and bottom, simultaneously.

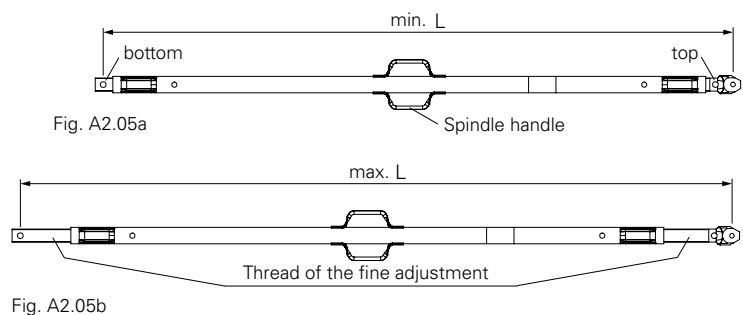


- Screw out the thread of the fine adjustment approx. 50 % which means fine adjustment can take place in both directions.
- The Push-Pull Prop RSS can be used instead of the Push-Pull Prop RS.

RS 210 and RS 260

- No rough adjustment.
- Fine adjustment by means of the thread using the spindle handle – on both sides.

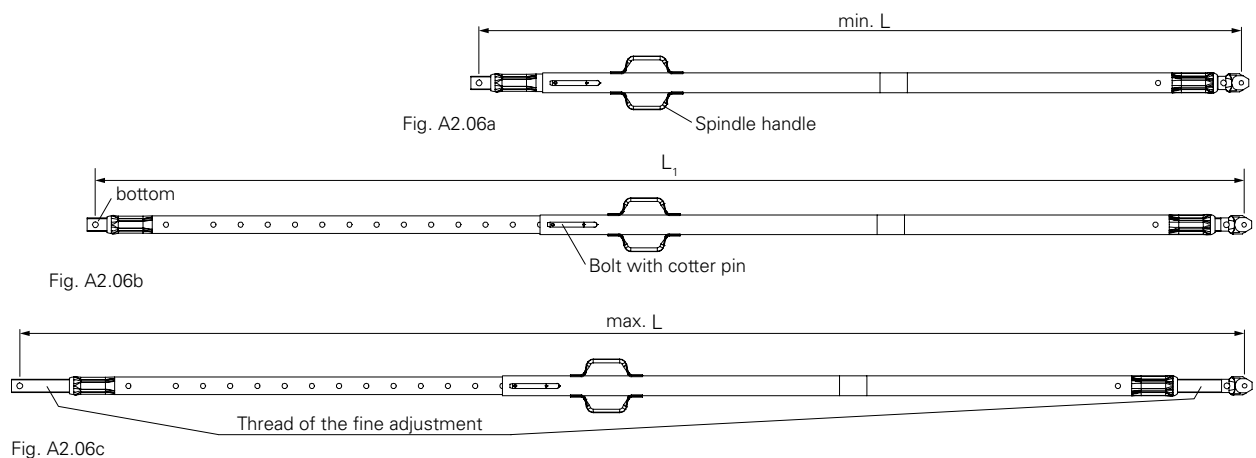
Push-pull prop	Item no.	Rough adjustment		Fine adjustment		
		Adjusting range [mm]	Length L1 [m]	Adjusting range [mm]	min. L [m] Fig. A2.05a	max. L [m] Fig. A2.05b
RS 210	117466	–	–	800 = 2x 400	1.3	2.1
RS 260	118238	–	–	300 = 2x 150	2.3	2.6



RS 300 and RS 450

- Rough adjustment on one side using bolt and cotter pin on the outer and inner tubes – at the bottom.
- Fine adjustment by means of the thread using the spindle handle – on both sides.

Push-pull prop	Item no.	Rough adjustment		Fine adjustment		
		Adjusting range [mm]	Length L1 [m] Fig. A2.06b	Adjusting range [mm]	min. L [m] Fig. A2.06a	max. L [m] Fig. A2.06c
RS 300	117467	800 = 8x 100	2.7	300 = 2x 150	1.9	3.0
RS 450	117468	1400 = 14x 100	4.2	300 = 2x 150	2.8	4.5



RS 650 and RS 1000



Warning

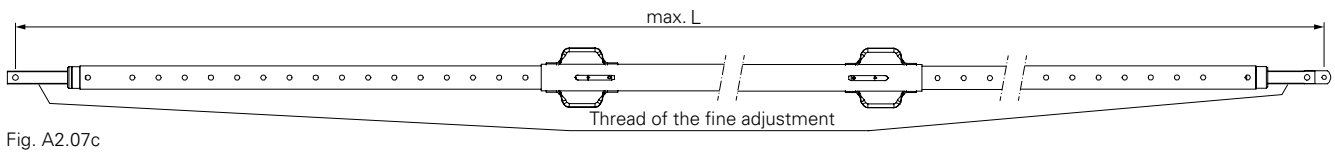
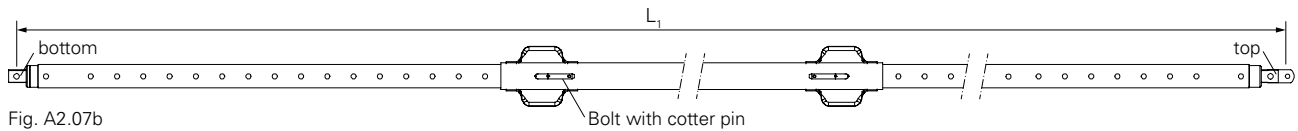
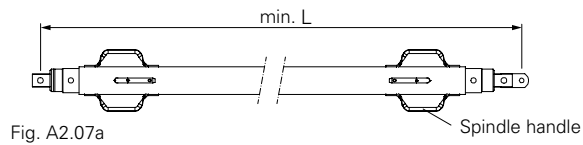
Heavy moving parts!

During assembly, there is a risk of hands being crushed!

- ⇒ Adjust the length of the push-pull prop only in a horizontal position.
- ⇒ When extending or retracting the inner tubes, only hold the thread spindles, not the inner tubes.
- ⇒ Never put a finger in a hole for holding purposes.
- ⇒ The RS 1000 should only be moved by crane.
- ⇒ Attach crane hooks to the spindle handles with asymmetrical 2-sling lifting gear.

- Rough adjustment on the outer and inner tubes using bolts and cotter pins.
Possible on both sides – top and bottom.
- Fine adjustment by means of the thread using the spindle handle – on both sides.

Push-pull prop	Item no.	Rough adjustment		Fine adjustment		
		Adjusting range [mm]	Length L1 [m] Fig. A2.07b	Adjusting range [mm]	min. L [m] Fig. A2.07a	max. L [m] Fig. A2.07c
RS 650	117469	2000 = 2x 10x 100	6.3	200 = 2x 100	4.3	6.5
RS 1000	028990	3400 = 2x 10x 170	9.8	200 = 2x 100	6.4	10.0



RS 1400



Warning

Loose components!

Loose components may topple over and cause serious injuries or even death

- ⇒ Use personal protective equipment.
- ⇒ Secure all bolts using cotter pins.



- Fix the loose end of the chain with the hook (10.5). As a result, the end of the chain is prevented from getting caught when the push-pull prop
 - is unloaded or
 - moved on the construction site or
 - is being attached to a formwork unit.
- Never attach the hook (10.5) to a crane hook.
- Attach Ring 1 (10.1) to the crane hook in order to move the push-pull prop.
- When transporting in a horizontal position, secure both crane hooks using the red rings only (10.2 + 10.3).

Pos.	Component	Item No.
10	Push-Pull Prop RS 1400	103800
10.1	Ring 1 – black, loose, with hook (10.5)	
10.2	Ring 2 – red, fixed	
10.3	Ring 3 – red, fixed	
10.4	Ring 4 – black, fixed	
10.5	Hook – attached to Ring 1	
10.6	Spigot – 2x	
10.7	Bolt Ø 16 x 42	
10.8	Cotter Pin 4/1	
10.9	Chain	

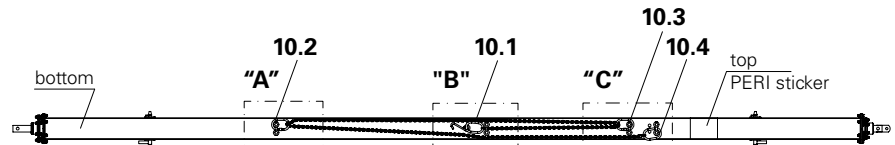


Fig. A3.01

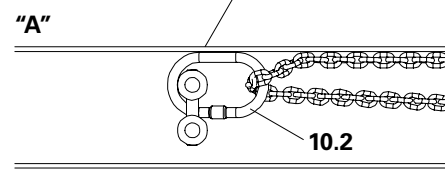


Fig. A3.01a

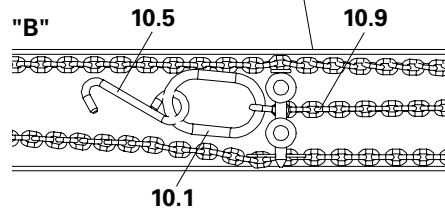


Fig. A3.01b

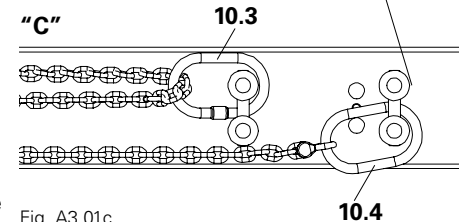


Fig. A3.01c



Is the chain (10.9) fixed as shown in the illustrations Fig. A3.01 + A3.01a/b/c?
If the chain is not accurately inserted as shown in the illustrations, release the chain and re-attach to the push-pull prop.

Releasing the chain

1. Remove cotter pins (**10.8**) and bolts (**10.7**) from the spigot (**10.6**). (Fig. A3.02a)
2. Lift out chain with Ring 1 and hook.
3. Re-attach bolts and cotter pins.
4. Insert Ring 1 (**10.1**) with hook (**10.5**) through Ring 3 (**10.3**) and pull through. (Fig. A3.02b)
5. Pull chain so it is completely tight.
6. Insert Ring 1 (**10.1**) with hook (**10.5**) through Ring 2 (**10.2**) and pull through.
7. Pull chain so it is completely tight.
→ The chain (**10.9**) is released and hangs loosely in Ring 4 (**10.4**) on the push-pull prop. (Fig. A3.03)

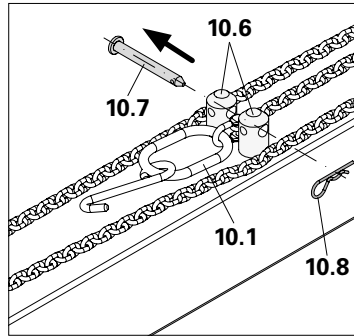


Fig. A3.02a

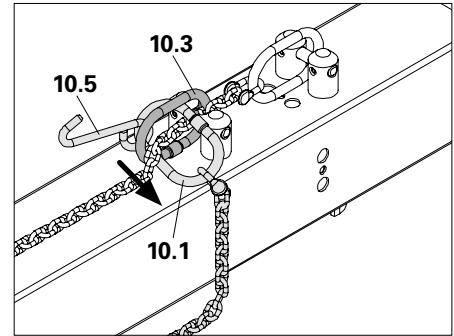


Fig. A3.02b

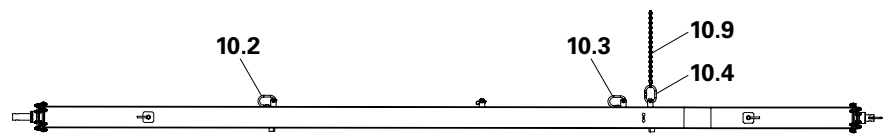


Fig. A3.03

Fastening the chain

1. Remove bolts (10.7) and cotter pins (10.8).
 2. Insert hook (10.5) and Ring 1 (10.1) through Ring 2 (10.2) and pull through. (Fig. A3.01a)
 3. Pull chain (10.9) completely tight.
 4. Insert hook (10.5) and Ring 1 (10.1) through Ring 3 (10.3) and pull through. (Fig. A3.04)
 5. Pull chain so it is completely tight.
 6. Place chain between the two spigots (10.6).
 - Ring 1 (10.1) is positioned in front of both spigots. (Fig. A3.05)
 7. Insert bolts (10.7) through the holes of both spigots. (Fig. A3.05)
 - The chain is positioned beneath the bolts.
 8. Insert the cotter pin (10.8) through the hole in the bolt. (Fig. A3.05)
 - Chain is tensioned.
- (Fig. A3.07)

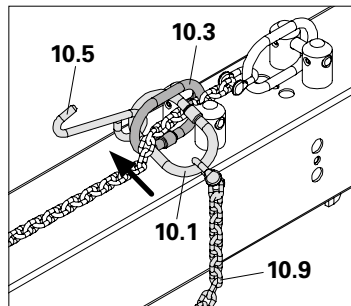


Fig. A3.04

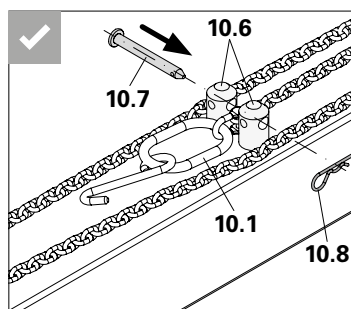


Fig. A3.05

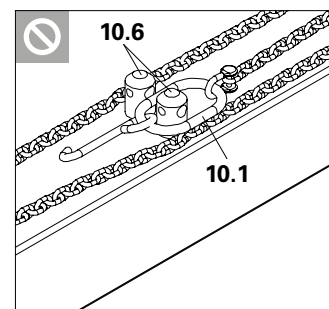


Fig. A3.06

Do **not** position Ring 1 (10.1) between the two spigots (10.6). (Fig. A3.06)



Is the chain (10.9) positioned between the two spigots (10.6)? (Fig. A3.05)

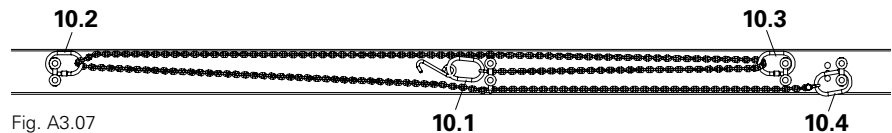


Fig. A3.07

Moving the push-pull prop



Warning

Heavy load on the crane!

A heavy load may tear loose and fall down causing serious injuries or even death

- ⇒ Crane sling angle on the 2-sling lifting gear $\leq 30^\circ$.
- ⇒ Do not use textile slings, e.g. round slings, for moving operations.



- Ensure that Push-Pull Props RS 1400 are only moved individually and in a horizontal position on the rings (10.2 + 10.3).
- Following the moving operation, the chain is then secured again.

Preparation

1. Remove cotter pins and bolts.
→ Ring 1 (10.1) is released.
2. Loosen the chain.
3. Firmly clamp the hook (10.5) in the chain.
4. Re-attach bolts and cotter pins.

Moving

1. Attach one crane hook of a 2-sling lifting gear to Ring 2 (10.2).
2. The other crane hook is attached to Ring 3 (10.3).
3. Lift push-pull prop with crane.
(Fig. A3.08)

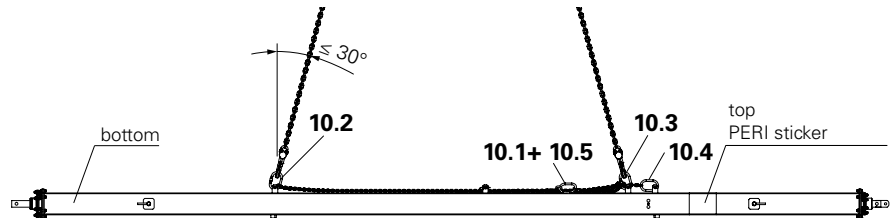


Fig. A3.08

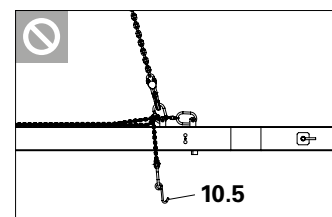


Fig. A3.09

The hook (10.5) must **not** hang down. (Fig. A3.09)

During the moving process, firmly clamp the hook to the chain of the push-pull prop.

Adjusting the length



Warning

Heavy moving parts!

During assembly, there is a risk of hands being crushed!

- ⇒ Adjust the length of the push-pull prop only in a horizontal position.
- ⇒ When extending or retracting the inner tubes, only hold the thread spindles, not the inner tubes.
- ⇒ Never put a finger in a hole for holding purposes.



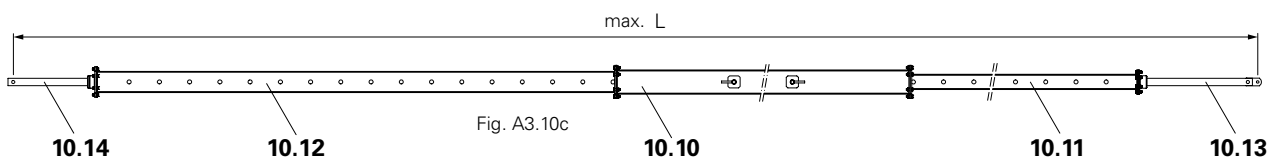
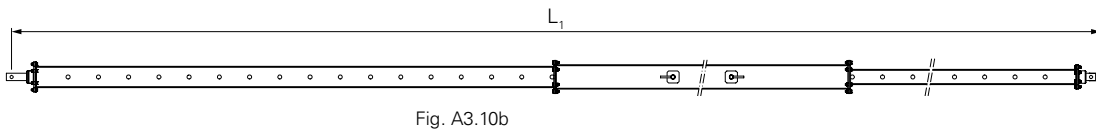
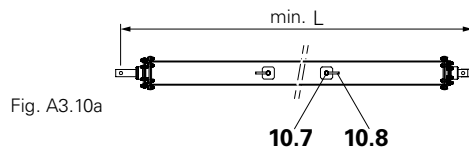
- The length of the push-pull prop to be adjusted is to be calculated according to project specifications.
- Ensure even distribution when adjusting the length of the inner tubes at the top and bottom (rough adjustment).
- Unscrew the threaded spindle at the bottom (**10.14**) by only a few turns so that the push-pull prop can be attached to the base plate.

Pos.	Component	Item No.
10	Push-Pull Prop RS 1400	103800
10.10	Outer tube	
10.11	Inner tube, top	
10.12	Inner tube, bottom	
10.13	Threaded spindle, top	
10.14	Threaded spindle, bottom	



Screw out the threaded spindles (**10.13 + 10.14**) approx. 50 % which means fine adjustment can take place in both directions.

Push-pull prop	Item no.	Rough adjustment		Fine adjustment		
		Adjusting range [mm]	Length L1 [m] Fig. A3.10b	Adjusting range [mm]	min. L [m] Fig. A3.10a	max. L [m] Fig. A3.10c
RS 1400	103800	6800 = 2 x 17 x 200	13.2	800 = 2 x 400	6.4	14.0



Rough adjustment on one side



Hole spacing for the adjustment:
20 cm increments.

1. Remove cotter pins (**10.8**) and bolts (**10.7**).
2. Pull out inner tube (**10.11**) until the required length is achieved.
3. Insert bolts (**10.7**) through the congruent holes of the inner and outer tubes (**10.10**).
4. Insert cotter pins (**10.8**) through the holes in the bolts (**10.7**).
→ The length has been adjusted and the inner and outer tubes are secured against moving.

(Fig. A3.10c + A3.11)

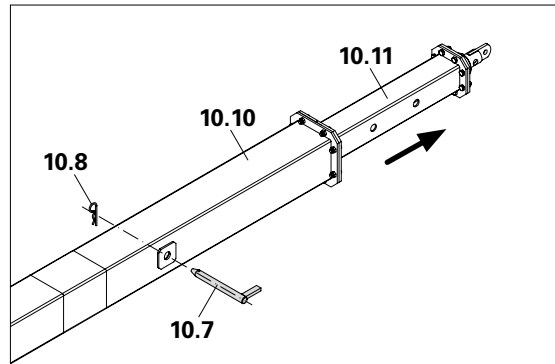


Fig. A3.11

Fine adjustment



Not until the push-pull prop has been fixed to the formwork and base plate.

Turn the push-pull prop on the outer tube.

- Fine adjustment on both sides using the threaded spindles – top and bottom simultaneously.

Erecting the push-pull prop



Perm. load-bearing capacity of the chain: 10 kN.

1. Release the chain (10.9).
2. Attach Ring 1 (10.1) to the crane hook.
3. Fix base plate to the bottom end of the push-pull prop, see Section A5.
4. Attach push-pull prop to crane lifting gear and guide to the formwork element. (Fig. A3.12)
One person must hold the push-pull prop from below so that the prop does not slide away.
5. Secure the top part of the push-pull prop to the formwork element using a brace connector of the respective system, see Section A6, A7 and A8.
6. Fit the base plate to the ground using, for example, an Anchor Bolt PERI 14/20 x 130.
7. Turn the push-pull prop on the outer tube until the formwork element is in the required position, e.g. perpendicular.
→ The threaded spindles turn simultaneously.

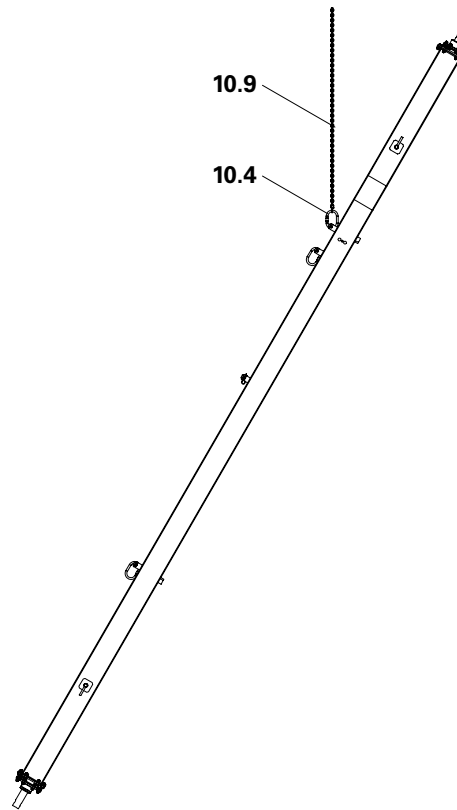


Fig. A3.12

RSS Push-Pull Props

Push-pull prop	Item no.	Fine adjustment		
		Adjusting range [mm]	min. L [m] Fig. A4.02a	max. L [m] Fig. A4.02b
RSS I	328010**	890 = 2x 445	2.05	2.94
RSS II	328020**	890 = 2x 445	2.91	3.80
RSS III	328030**	1400 = 2x 700	4.60	6.00

** Discontinued items

Adjusting the length

Screw out the threaded spindles symmetrically at the top and bottom until the required length is reached. Turn the installed push-pull prop with the spindle handle.

→ The threaded spindles turn simultaneously.

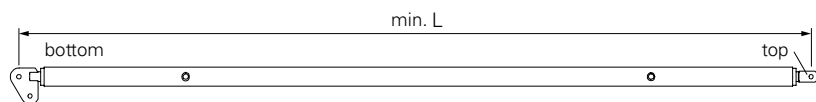


Fig. A4.02a

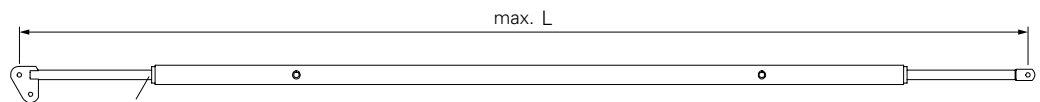


Fig. A4.02b



The Push-Pull Prop RS can also be used instead of the Push-Pull Prop RSS.

Kicker Braces AV

Push-pull prop	Item no.	Fine adjustment		
		Adjusting range [mm]	min. L [m] Fig. A4.03a	max. L [m] Fig. A4.03b
AV 82	057087	320 = 2x 160	0.50	0.82
AV 111	057088	320 = 2x 160	0.79	1.11
AV 140	028110	320 = 2x 160	1.08	1.40
AV 210	328135**	820 = 2x 410	1.28	2.10
AV RSS III	328120**	890 = 2x 445	2.03	2.92

** Discontinued items

Adjusting the length

Screw out the threaded spindles symmetrically at the top and bottom until the required length is reached.
 → The threaded spindles turn simultaneously.

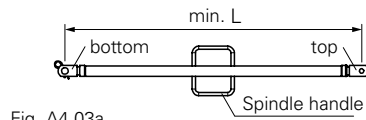


Fig. A4.03a

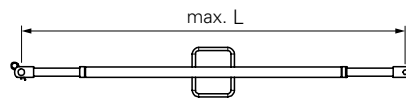


Fig. A4.03b



Take into consideration data sheet for the anchor bolt.



- Base plates are push-pull prop-specific. There are two variants:
 - Base Plate RS for Push-Pull Props RS 210, RS 260, RS 300, RS 450, RS 650, RS 1000 and RS 1400.
 - Base Plate RSS-2 for Push-Pull Props RSS I, RSS II and RSS III
- Before the push-pull prop and kicker brace are attached to the base plate, roughly adjust the length and unscrew the threaded spindles (fine adjustment) using only a few turns.

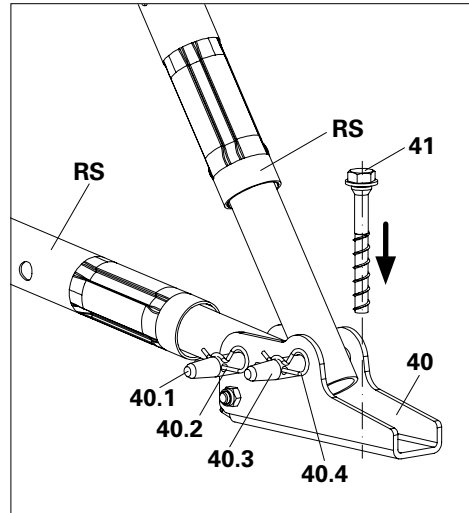


Fig. A5.01

Base Plate RS

Pos.	Component	Item No.
40	Base Plate-3 RS	126666
41	Anchor Bolt PERI 14/20 x 130	124777

Assembly

1. Fix the bottom part of the push-pull prop (RS) – here as kicker brace – with bolts (40.1) and cotter pins (40.2) to the back of the base plate (40).
2. Fix the bottom part of another push-pull prop – here as push-pull prop – with bolts (40.3) and cotter pins (40.4) to the base plate (40).
3. Fix the brace connector to the formwork, see Instructions for Assembly and Use of the system.
4. Fix push-pull prop to the brace connector, see Sections A6, A7 and A8.
5. Mount the base plate on a flat and sufficiently load-bearing surface area, e.g. using anchor bolts (41). (Fig. A5.01)



Instead of the Base Plate-3 RS 210-1400 (Item no. 126666), the following items can also be used:

- Base Plate-2 for RS1000/1400 (Item no. 102018) or
- Base Plate-2 for RS 210-1400 (Item no. 417343**)

** Discontinued items

Base Plate RSS

Pos.	Component	Item No.
5	Bolt Ø16 x 42	027170
6	Cotter Pin	018060
41	Anchor Bolt PERI 14/20 x 130	124777
42	Base Plate-2 RSS	406000**

Assembly

1. Fix connection lugs of the Push-Pull Prop RSS to the base plate using bolts (**42.1**) and cotter pins (**42.2**).
2. Fix the connection of the kicker brace to the rear hole of the connection lug using the bolts (**5**) and cotter pins (**6**).
3. Fit the base plate onto a flat and sufficiently load-bearing surface area, for example with anchor bolts (**41**).

(Fig. A5.02)

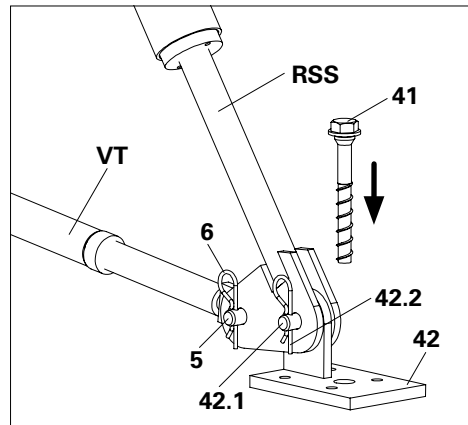


Fig. A5.02

** Discontinued items



Wall connections are system-specific.

MAXIMO and TRIO

The brace connector is mounted on the rear on the formwork. A push-pull prop is attached on the formlining side and this secures the formwork element against tipping over. The brace connector can be attached to both horizontal and vertical panel struts. An opposing guardrail can be mounted on the brace connector.

See the Instructions for Assembly and Use of MAXIMO System Supplement.

Pos.	Component	Item No.
RS	Push-pull prop	acc. to size
70	Brace connector formlining side MX RS	134623

Connect Push-Pull Prop (RS) and connection lugs (71.1) with bolts (71.2) and cotter pins (71.3). (Fig. A6.01a)

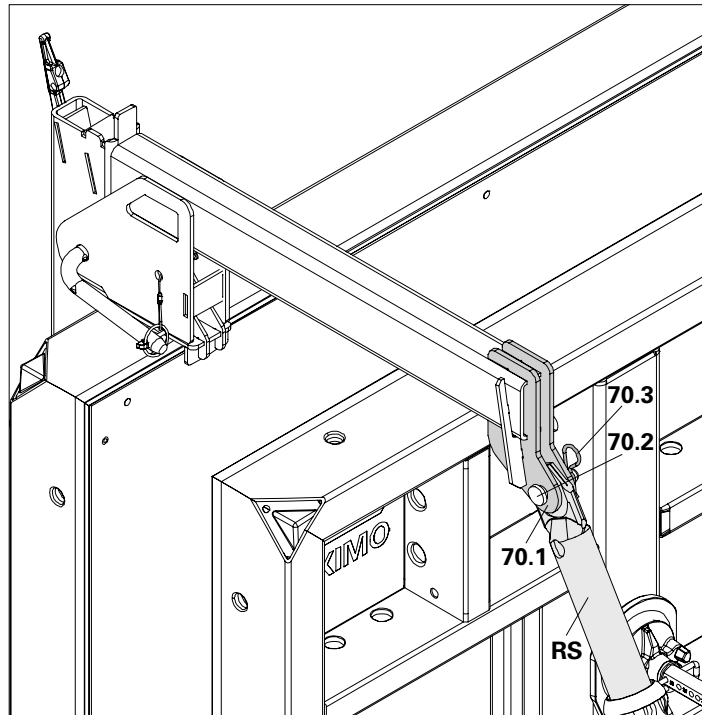


Fig. A6.01a

MAXIMO and TRIO

The push-pull props are connected to the rear anchoring point on the Scaffold Bracket MXK-RS.

If the Scaffold Bracket MXK-RS is used as a brace connector, then the console bracket must be reinforced with additional measures. The Scaffold Bracket MXK-RS can be connected to the Panel Formwork MAXIMO in two different ways:

By connecting to horizontal panel struts and connecting to vertical panel struts. See the Instructions for Assembly and Use for the MAXIMO MXK Bracket System.

Pos.	Component	Item No.
RS	Push-pull prop	acc. to size
75	Scaffold Bracket MXK RS	126540

Connect Push-Pull Prop (RS) and connection lugs (**75.1**) with bolts (**75.2**) and cotter pins (**75.3**). (Fig. A6.01b)

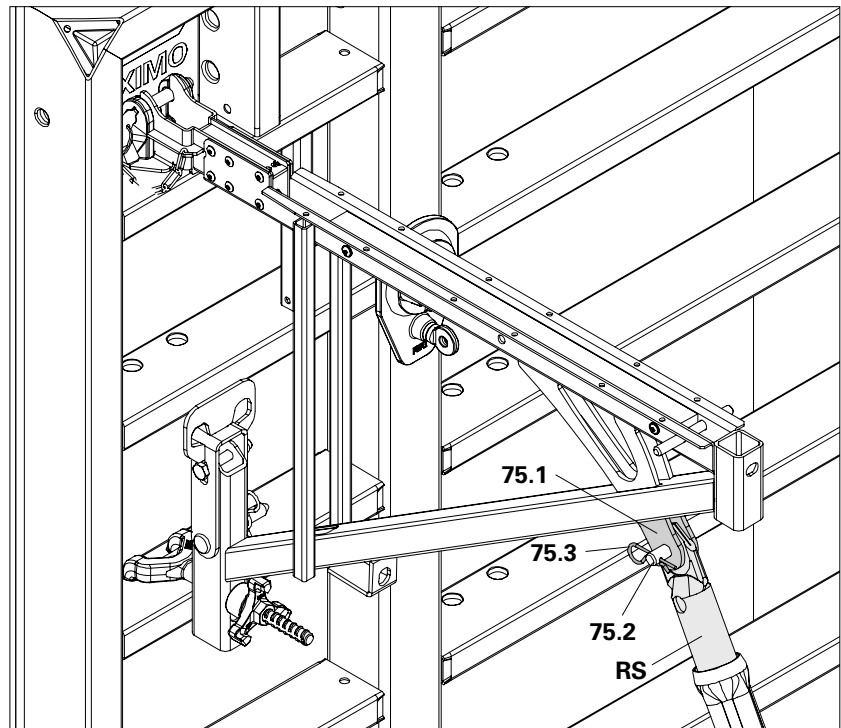


Fig. A6.01b

MAXIMO and TRIO

Fix Brace Connector TRIO to the formwork element, see Instructions for Assembly and Use for the MAXIMO Panel Formwork and TRIO Panel Formwork systems.

Pos.	Component	Item No.
RS	Push-pull prop	acc. to size
20	Clamping Head-2	023660

- Horizontal assembly of the clamping head: connect Push-Pull Prop (RS) and connection lugs (20.1) with bolts (20.3) and cotter pins (20.4). (Fig. A6.01c)
- Vertical assembly of the clamping head: connect Push-Pull Prop (RS) and connection lugs (20.2) with bolts (20.3) and cotter pins (20.4). (Fig. A6.01d)

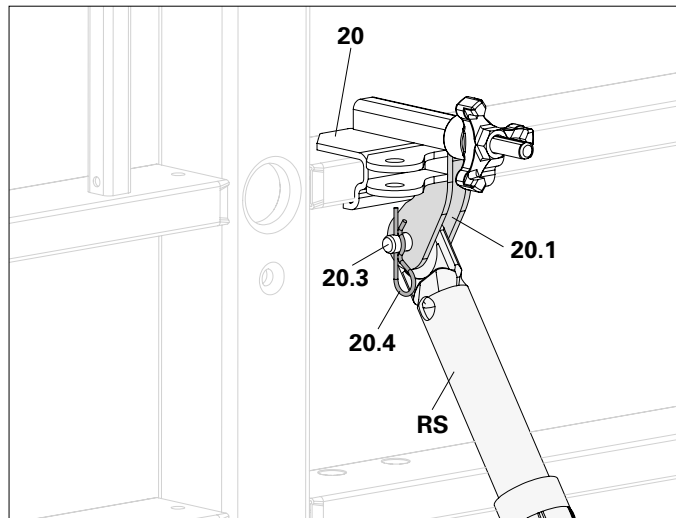


Fig. A6.01c

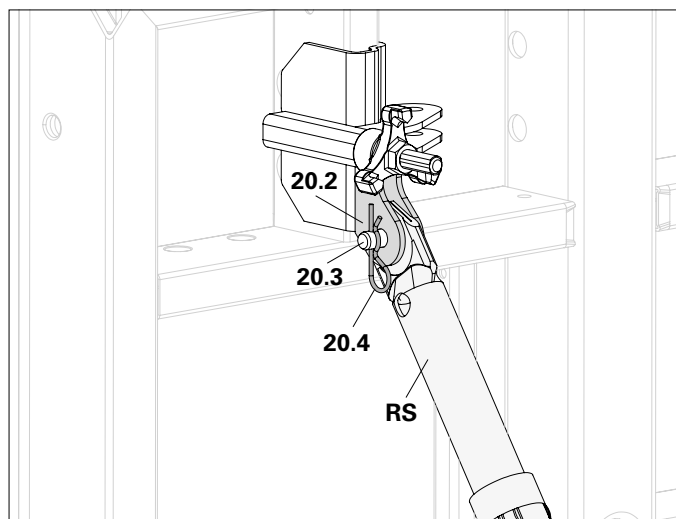


Fig. A6.01d

DOMINO

Fix Brace Connector DRA to the formwork element, see Instructions for Assembly and Use for the DOMINO Panel Formwork system.

Pos.	Component	Item No.
21	DOMINO RS-Connection DRA-2	127628

Installation of the connector is only possible horizontally.
Connect Push-Pull Prop (RS) and connection lugs (21.1) with bolts (21.2) and cotter pins (21.3). (Fig. A6.02)

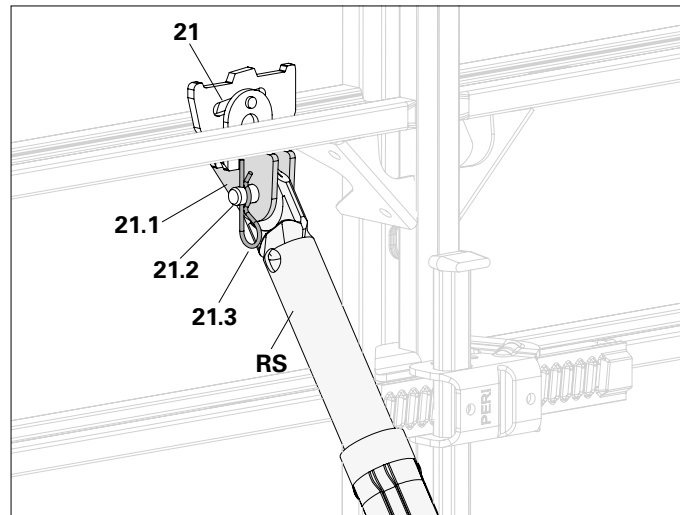


Fig. A6.02

LIWA

Fix the brace connector to the formwork element, see Instructions for Assembly and Use for the LIWA Panel Formwork system.

Pos.	Component	Item No.
22	Brace Connector LIWA-2	125329
23	Brace Connector LIWA	117169

- Horizontal assembly of the connector (**22/23**):
 - Connect Push-Pull Prop (RS) and connection lugs (**22.1**) with bolts (**22.3**) and cotter pins (**22.4**). (Fig. A6.03a)
 - Connect Push-Pull Prop (RS) and connection lugs (**23.1**) with bolts (**23.2**) and cotter pins (**23.3**). (Fig. A6.04)
- Vertical assembly with the Brace Connector LIWA-2 (**22**):
 - Connect Push-Pull Prop (RS) and connection lugs (**22.2**) with bolts (**22.3**) and cotter pins (**22.4**). (Fig. A6.03b)

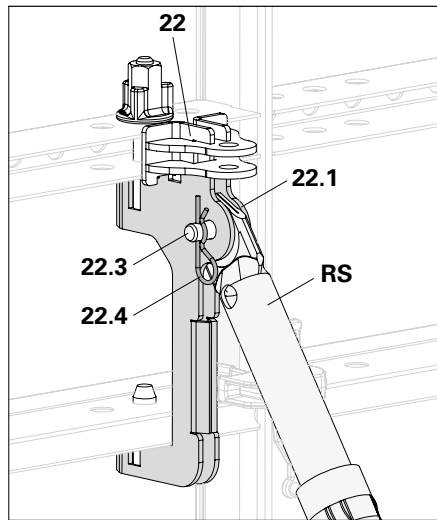


Fig. A6.03a

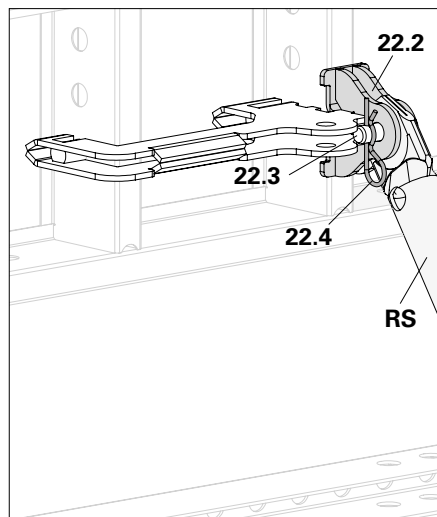


Fig. A6.03b

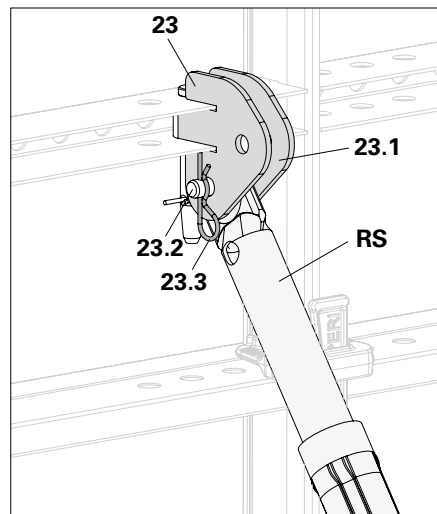


Fig. A6.04

VARIO GT 24

Fix the girder headpiece to the girder, see Instructions for Assembly and Use for the VARIO GT 24 Girder Wall Formwork system.

Pos.	Component	Item No.
24	Girder Headpiece GT 24	028050
25	Girder Headpiece GT 24/A	028070

Installation of the girder headpiece is only possible vertically.

- Install the girder headpiece (24) within the girder: connect the Push-Pull Prop (RS) to connection lugs (24.1) using bolts (24.2) and cotter pins (24.3). (Fig. A6.05)
- Connect the girder headpiece (25) to the extension splices of two girders: connect the Push-Pull Prop (RS) to connection lugs (25.1) using bolts (25.2) and cotter pins (25.3). (Fig. A6.06)

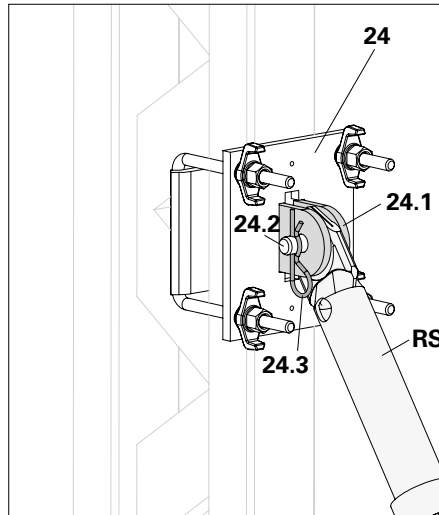


Fig. A6.05

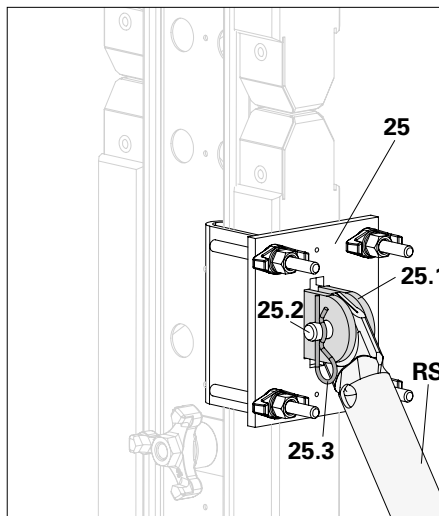


Fig. A6.06

DUO

Fix Brace Connector DUO to the formwork element, see Instructions for Assembly and Use for the DUO Formwork system.

Pos.	Component	Item No.
26	DUO brace connector	128294

Installation of the connector (26) simultaneously on the horizontal and vertical struts.

Connect Push-Pull Prop (RS) and connection lugs (26.1) with bolts (26.2) and cotter pins (26.3). (Fig. A6.07)

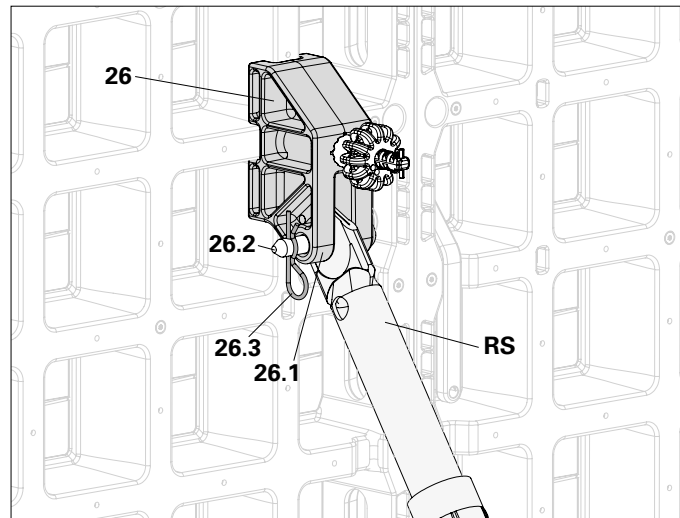


Fig. A6.07

UNO

Fix Brace Connector UNO to the formwork element, see Instructions for Assembly and Use for the UNO Formwork system.

Pos.	Component	Item No.
27	Brace Connector UNO	123559

Installation of the connector (27) is only possible on the vertical strut of the UNO element.

Connect Push-Pull Prop (RS) and connection lugs (27.1) with bolts (27.2) and cotter pins (27.3). (Fig. A6.08)

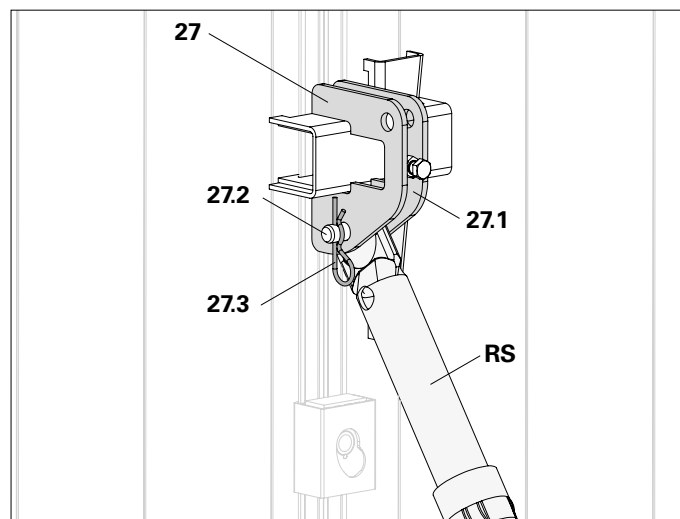


Fig. A6.08

RAPID

Fix the connection of the brace connector to the formwork element or column, see Instructions for Assembly and Use for the RAPID Column Formwork system.

Pos.	Component	Item No.
28	Brace Connector-3 Rapid	037190

Connect Push-Pull Prop (RS) and connection lugs (28.1) with bolts (28.2) and cotter pins (28.3). (Fig. A7.01)

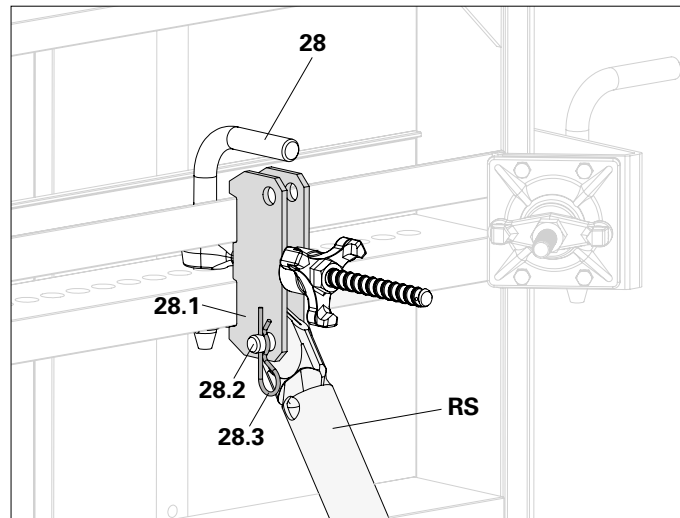


Fig. A7.01

QUATTRO

Fix the brace connector to the formwork element or column, see Instructions for Assembly and Use for the QUATTRO Column Formwork system.

Pos.	Component	Item No.
29	QUATTRO Brace Connector QR	037530

Connect Push-Pull Prop (RS) and connection lugs (29.1) with bolts (29.2) and cotter pins (29.3). (Fig. A7.02)

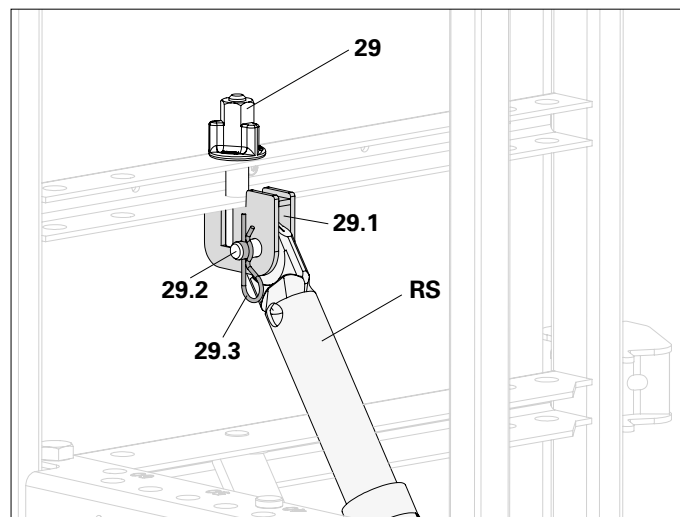


Fig. A7.02

LICO

Fix brace connector to the formwork element/column, see Instructions for Assembly and Use for the LICO Column Formwork system.

Pos.	Component	Item No.
29	QUATTRO Brace Connector QR	037530

Connect Push-Pull Prop (RS) and connection lugs (29.1) with bolts (29.2) and cotter pins (29.3). (Fig. A7.03)

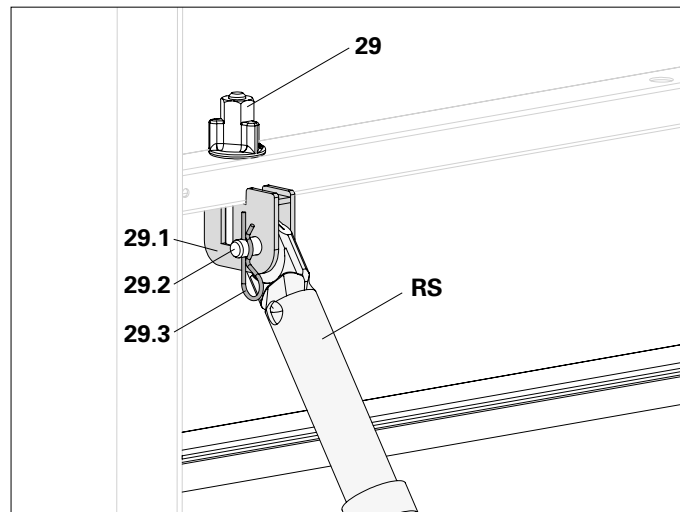


Fig. A7.03

SRS

Without any additional components as brace connector.

See Instructions for Assembly and Use for the SRS Column Formwork.

Pos.	Component	Item No.
5	Bolt Ø16 x 42	027170
6	Cotter Pin 4/1	018060

Fix Push-Pull Prop (RS) between the connection lugs (SRS) of the SRS Circular Column Formwork using bolts (5) and cotter pins (6). (Fig. A7.04)

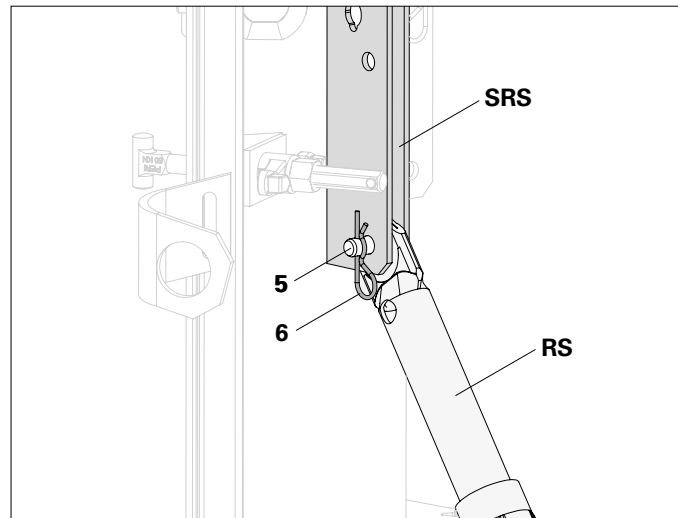


Fig. A7.04

RUNDFLEX

The connection of the push-pull prop is identical to the VARIO GT 24 Girder Wall Formwork, see Section A6, VARIO GT 24.

See the Instructions for Assembly and Use for the Rundflex system. (not shown)

RUNDFLEX Plus-2

Without any additional components as brace connector.

Pos.	Component	Item No.
5	Bolt Ø16 x 42	027170
6	Cotter Pin 4/1	018060

Fix Push-Pull Prop (RS) between the connection lugs of the connection of the RUNDFLEX Plus-2 Circular Column Formwork using bolts (5) and cotter pins (6).

See the Instructions for Assembly and Use for the RUNDFLEX Plus-2 system. (not shown)

MULTIPROP

Fix the Brace Connector MPR to the element of the Slab Prop MP or Brace Connector MPB 24 on the Alu Beam MPB 24.
See Instructions for Assembly and Use for the MULTIPROP system.

Pos.	Component	Item No.
30	Brace Connector MPR	129565
31	Brace Connector MPB 24	108213

- Connect Push-Pull Prop (RS) and connection lugs (30.1) with bolts (30.2) and cotter pins (30.3). (Fig. A8.01)
- Connect Push-Pull Prop (RS) and connection lugs (31.1) with bolts (31.2) and cotter pins (31.3). (Fig. A8.02)

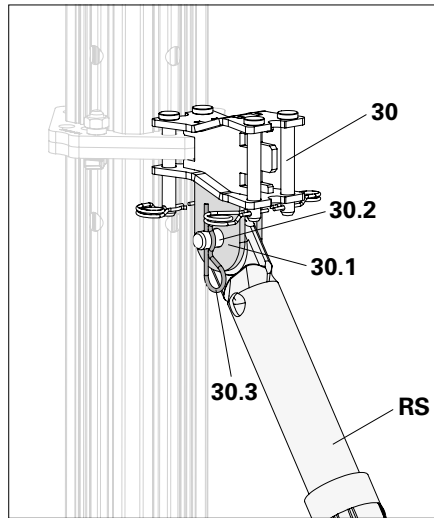


Fig. A8.01

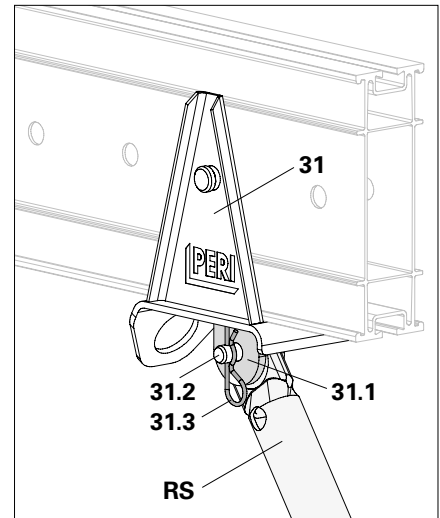


Fig. A8.02

Main Beam HDT

Fix the connection of the Connector Plate AV to the bottom chord of the top beam.

Pos.	Component	Item No.
32	Connector Plate AV	028080

Install Push-Pull Prop (RS) between the connection lugs of the connection of the Connector Plate AV (32) using bolts and cotter pins.

See Instructions for Assembly and Use for the HD 200 Heavy-Duty Prop system.
(not shown)

Tubes

Fix Brace Connector HDR-2 to the tubes with \varnothing 48 mm, e.g. of scaffolding or heavy-duty props. See also the Instructions for Assembly and Use for the HD 200 Heavy-Duty Prop system and PERI UP Flex Heavy-Duty Prop HD.

Pos.	Component	Item No.
33	Brace Connector HDR-2	131723

Connect Push-Pull Prop (RS) and connection lugs (33.1) with bolts (33.2) and cotter pins (33.3). (Fig. A8.03)

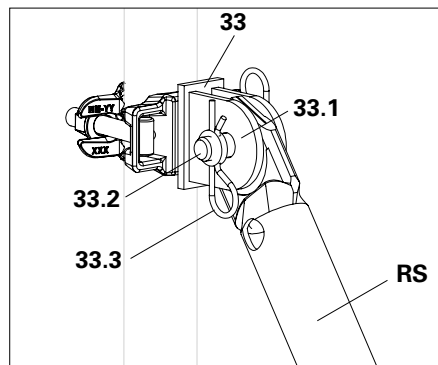


Fig. A8.03

Steel Waler SRZ/SRU

Fix the Wedge Headpiece SRZ/SRU to the Steel Waler SRZ/SRU, e.g. GB Cantilevered Parapet Track or VGK Cantilevered Parapet Bracket. See Instructions for Assembly and Use for the VARIO GT 24 system.

Pos.	Component	Item No.
34	Wedge Headpiece SRZ/SRU	028060
34.4	Wedge	024250

Connect Push-Pull Prop (RS) and connection lugs (34.1) with bolts (34.2) and cotter pins (34.3). (Fig. A8.04)

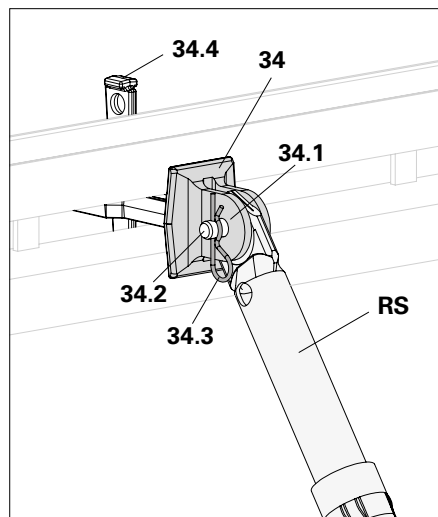


Fig. A8.04

Quick Connector Head RS-2



Warning

Risk of heavy unsecured components toppling over!

Heavy components may topple over and cause serious, irreparable injuries or even death!

- ⇒ Only ever fit the Quick Connector Head RS-2 onto prefabricated concrete elements.
- ⇒ Do not use Quick Connector Head RS-2 for wall or column formwork.
- ⇒ Only ever use Quick Connector Head RS-2 with Push-Pull Props RS 210, RS 260, RS 300 and RS 450. With longer push-pull props (RS 650, RS 1000 and RS 1400), the mounting is not secure.
- ⇒ Do not use with Push-Pull Prop RSS.
- ⇒ Only use Quick Connector Head RS-2 in an angle range of 20° to 60°, see Section B3.



The position and number of fastening elements for the quick connector head are determined according to the respective project.

Pos.	Component	Item No.
50	Quick Connector Head RS-2	127190

Fix quick connector head (50) with suitable fastening means, e.g. screw-in sleeves and bolts or permissible pigtail anchors, preferably to horizontal prefabricated concrete elements.

(Fig. A9.01 + A9.01a)

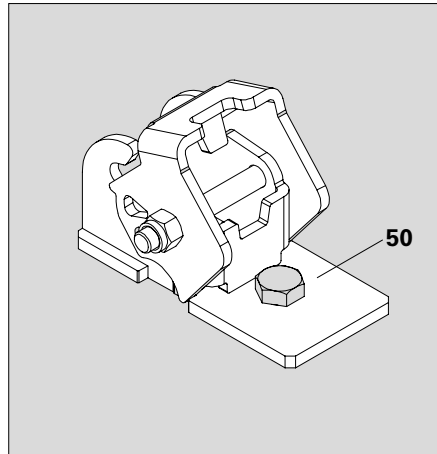


Fig. A9.01a

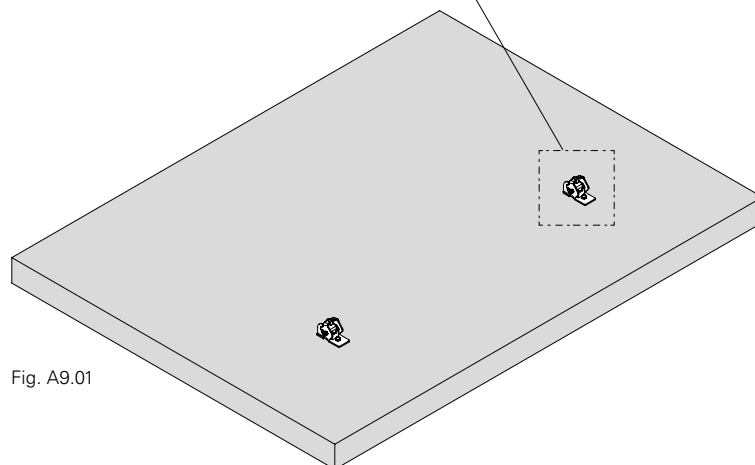


Fig. A9.01

Adapter for Quick Connector Head RS-2

The adapter (**52**) tightly connects (friction-locked) the Quick Connector Head RS-2 and push-pull prop.

Pos.	Component	Item No.
52	Adapter for Quick Connector Head RS	117726

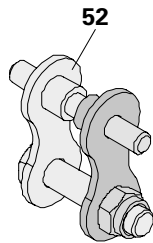


Fig. A9.02

1. Disassemble the adapter.
(Fig. A9.02 + Fig. A9.03a)
2. Insert bolts (**52.1**) and threaded bolts (**52.2**) through the holes on the connection lug of the Push-Pull Prop (RS).
3. Push the counterpart (**52.3**) over the bolt (**52.1**) and threaded bolt (**52.2**).
4. Fit a nut (**52.4**) onto the threaded bolt. (Fig. A9.03a)
→ The adapter (**52**) is fully secured on the push-pull prop. (Fig. A9.03b)

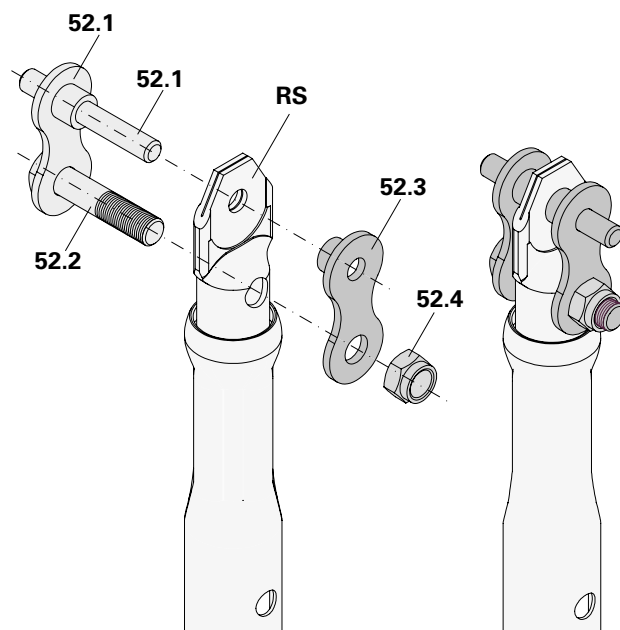


Fig. A9.03a

Fig. A9.03b

Fitting the push-pull prop

1. Press the securing flap (50.1) backwards with both pins of the adapter (52.5) on the guide edges (50.2).
→ The quick connector head is open. (Fig. A9.04a)
2. Move the push-pull prop downwards with the two pins (52.5) on the guide edge (50.2).
→ The two pins of the adapter (52.5) fall into the notches of the hook plates (50.3) and the securing flap (50.1) pivots downwards. (Fig. A9.04a + b)
→ The small tip (50.4) of the securing flap rests on the pin. As a result, the connection is secured. (Fig. A9.04c)

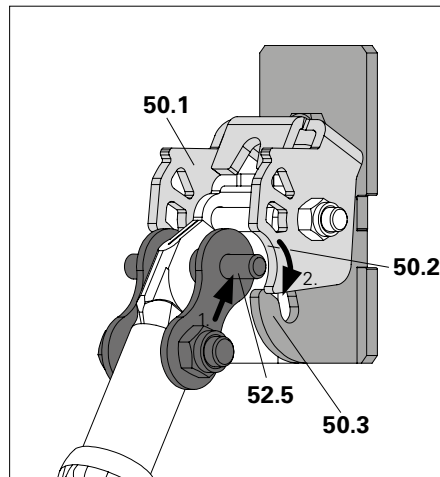


Fig. A9.04a



Is the securing flap closed, i.e. is the small tip (50.4) of the securing flap resting on the pins of the adapter on both sides? (Fig. A9.04c)



For fixing the base plate, see Section A5.

The push-pull prop is attached to the prefabricated concrete element. (Fig. A9.05)

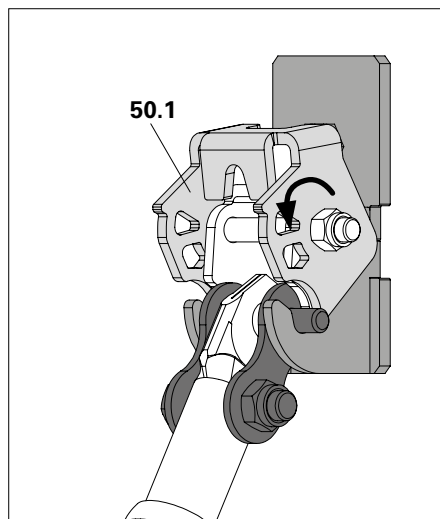


Fig. A9.04b

Disassembly



- The push-pull prop must be secured and free of any load.
- The dismantling sequence is carried out according to project specifications.

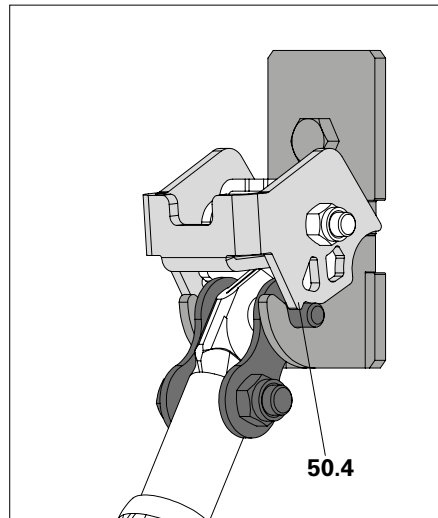


Fig. A9.04c

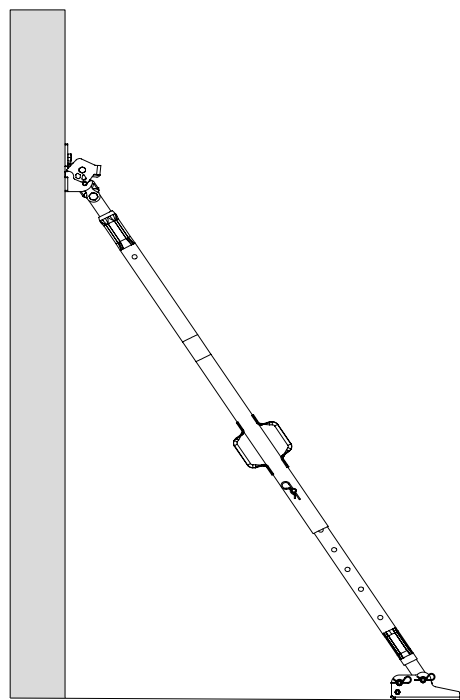


Fig. A9.05

RS Push-Pull Props



- The load-bearing capacity information refers to use with symmetrical extensions.
- The connection points are to be pin jointed and made structurally adequate by calculations in each individual case.

Push-Pull Prop RS 210	L = 1.30 – 2.10 m	
Extension Length L [m]	1.30 – 2.00	2.10
Perm. compressive force F [kN]	25.0	23.6
Perm. tensile force F [kN]	25.0	

Push-Pull Prop RS 260	L = 2.30 – 2.60 m	
Extension Length L [m]	2.30	2.60
Perm. compressive force F [kN]	25.0	22.1
Perm. tensile force F [kN]	25.0	

Push-Pull Prop RS 300	L = 1.90 – 3.00 m		
Extension Length L [m]	1.90 – 2.30	2.50	3.00
Perm. compressive force F [kN]	25.0	21.6	14.2
Perm. tensile force F [kN]	25.0		

Push-Pull Prop RS 450	L = 2.80 – 4.50 m		
Extension Length L [m]	2.80 – 3.60	4.00	4.50
Perm. compressive force F [kN]	25.0	17.2	11.8
Perm. tensile force F [kN]	25.0		

Push-Pull Prop RS 650	L = 4.30 – 6.50 m				
Extension Length L [m]	4.30 – 4.90	5.00	5.50	6.00	6.50
Perm. compressive force F [kN]	25.0	24.4	18.5	15.9	13.2
Perm. tensile force F [kN]	25.0				

Push-Pull Prop RS 1000	L = 6.40 – 10.00 m				
Extension Length L [m]	6.40 – 6.64	7.64	8.44	9.24	10.00
Perm. compressive force F [kN]	34.2	25.9	20.3	16.0	12.8
Perm. tensile force F [kN]	29.0				

Push-Pull Prop RS 1400	L = 6.40 – 14.00 m			
Extension Length L [m]	6.40 – 10.46	12.00	13.00	14.00
Perm. compressive force F [kN]	28.8	26.8	22.2	18.1
Perm. tensile force F [kN]	27.7			

Static system for Push-Pull Props RS

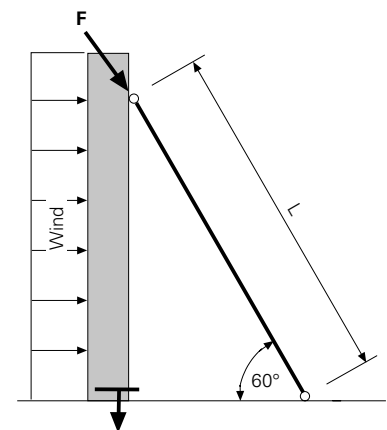


Fig. B1.01

RSS Push-Pull Props and Kicker Braces AV



- The load-bearing capacity information refers to use with symmetrical extensions.
- The connection points are to be pin jointed and made structurally adequate by calculations in each individual case.

Push-Pull Prop RSS I	L = 2.05 – 2.94 m			
Extension Length L [m]	2.03	2.30	2.60	2.94
Perm. compressive force F [kN]	34.2	33.2	22.7	14.2
Perm. tensile force F [kN]	26.3			

Push-Pull Prop RSS II	L = 2.91 – 3.80 m			
Extension Length L [m]	2.91	3.21	3.50	3.80
Perm. compressive force F [kN]	31.7	26.4	17.1	11.6
Perm. tensile force F [kN]	26.3			

Push-Pull Prop RSS III	L = 4.60 – 6.00 m				
Extension Length L [m]	4.60	4.95	5.30	5.65	6.00
Perm. compressive force F [kN]	27.8	22.8	18.6	14.7	11.1
Perm. tensile force F [kN]	20.0				

Static system for Push-Pull Props RSS

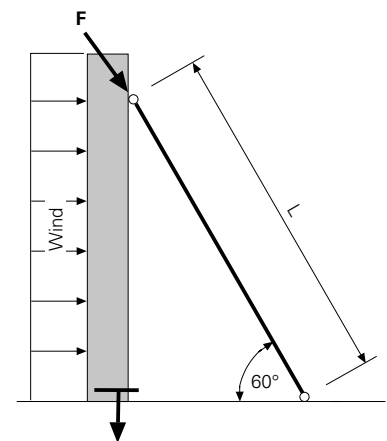


Fig. B1.02

Kicker Braces AV 82/111/140	L = 0.50 – 0.82 m			L = 0.79 – 1.11 m			L = 1.08 – 1.40 m		
Extension Length L [m]	0.50	0.66	0.82	0.79	0.95	1.11	1.08	1.24	1.40
Perm. compressive force F [kN]	34.1	28.9	23.2	30.9	24.9	19.7	25.7	20.0	15.7
Perm. tensile force F [kN]	26.3			26.3			26.3		

Kicker Braces AV 210	L = 1.28 – 2.10 m			
Extension length L [m]	1.28	1.69	1.90	2.10
Perm. compressive force F [kN]	34.2	34.2	25.5	19.0
Perm. tensile force F [kN]	26.3			

Kicker Braces AV for RSS III	L = 2.03 – 2.92 m			
Extension length L [m]	2.03	2.30	2.60	2.94
Perm. compressive force F [kN]	34.2	33.2	22.7	14.2
Perm. tensile force F [kN]	26.3			

Static system for Kicker Braces AV

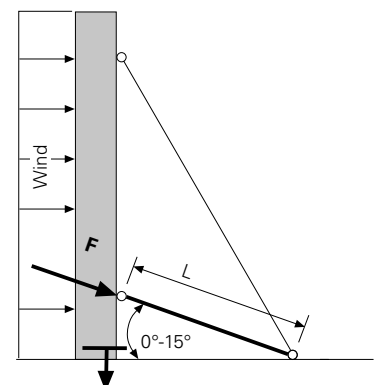


Fig. B1.03

RS Push-Pull Prop on the base plate

Use with one push-pull prop.

Base Plate-3 RS 210-1400

Item no. 126666

(Fig. B2.01 + Fig. B2.01a)

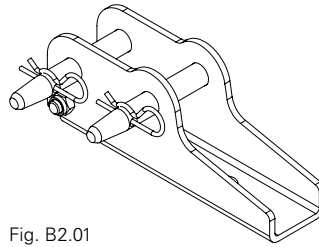


Fig. B2.01

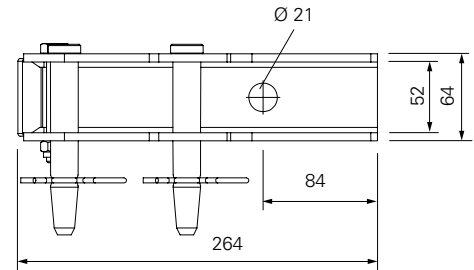


Fig. B2.01a

Load case 1

$$35^\circ \leq \alpha_1 \leq 75^\circ$$

$$0^\circ \leq \alpha_2 \leq 25^\circ$$

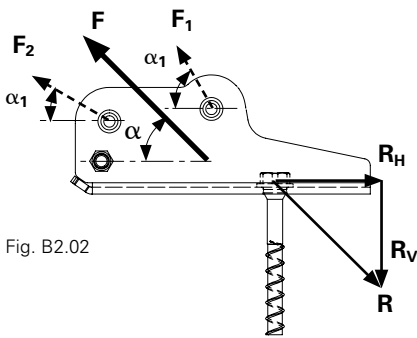


Fig. B2.02

- F_1 = push-pull prop load
- F_2 = kicker brace load
- F = Resulting force from F_1 and F_2
- α = angle between F and concrete surface [°]
- α_1 = angle between F_1 and concrete surface [°]
- α_2 = angle between F_2 and concrete surface [°]
- R = Resulting dowel load
- R_H = horizontal component of the dowel load
- R_V = vertical component of the dowel load

$$F = \sqrt{F_1^2 + F_2^2 + 2 \cdot F_1 \cdot F_2 \cdot \cos(\alpha_1 - \alpha_2)}$$

$$\alpha = \frac{F_1 \cdot \alpha_1 + F_2 \cdot \alpha_2}{F_1 + F_2}$$

Table for load case 1 only applies if F_1 and F_2 are simultaneously compressive or tension forces respectively.

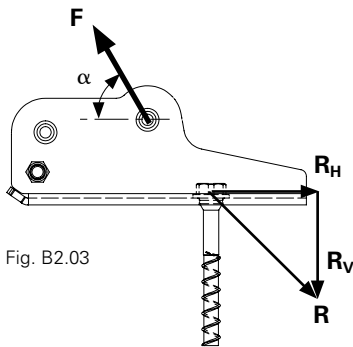
Load case 1 (Fig. B2.02)				
a [°]	perm. tension/ compression F [kN]	R [kN]	R_V [kN]	R_H [kN]
35	23.2	26.2	18.0	19.0
40	30.3	33.9	24.7	23.2
45	31.4	33.8	25.5	22.2
50	28.7	30.0	23.6	18.4
55	25.8	27.9	23.6	14.8
60	24.9	28.5	25.6	12.4
65	23.5	30.1	28.4	10.0
70	22.5	32.9	32.0	7.7
75	19.5	32.1	31.7	5.0

Minimum concrete strength = 15 N/mm²

B2 Base plate loads

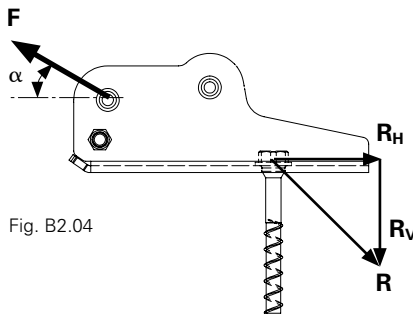
Load case 2

$$0^\circ \leq \alpha \leq 90^\circ$$



Load case 3

$$0^\circ \leq \alpha \leq 35^\circ$$



R = Resulting dowel load
 R_H = horizontal component of the dowel load
 R_V = vertical component of the dowel load

Load case 2 (Fig. B2.03) α [°]	Load case 3 (Fig. B2.04) α [°]	perm. tension compression F [kN]	R [kN]	R _V [kN]	R _H [kN]
0	0	9.1	15.9	13.1	9.1
5	5	9.7	15.6	12.2	9.7
10	10	10.6	15.3	11.2	10.4
15	15	11.7	15.1	10.0	11.3
20	20	13.2	15.8	9.8	12.4
25	25	15.3	18.1	11.6	13.9
30	30	18.4	21.3	14.1	15.9
35	35	23.2	26.2	18.0	19.0
40	not permitted	30.3	33.9	24.7	23.2
45		31.4	33.8	25.5	22.2
50		28.7	30.0	23.6	18.4
55		25.8	27.9	23.6	14.8
60		24.9	28.5	25.6	12.4
65		23.5	30.1	28.4	10.0
70		22.5	32.9	32.0	7.7
75		19.5	32.1	31.7	5.0
80		16.1	29.1	28.9	2.8
85		13.8	26.8	26.8	1.2
90		12.1	25.2	25.2	0.0

Minimum concrete strength = 15 N/mm²

B2 Base plate loads

Base Plate-2 RS 1000/1400

Item no. 102018

(Fig. B2.05 + B2.05a + B2.06)

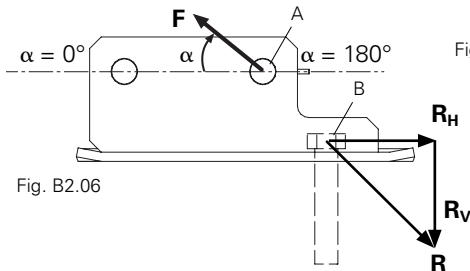


Fig. B2.06

F = prop load

The push-pull prop and the dowel are to be installed in the positions (A) and (B) shown. (Fig. B2.01 + B2.02 + B2.03)

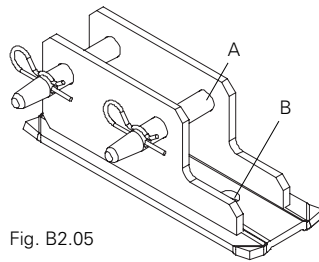


Fig. B2.05

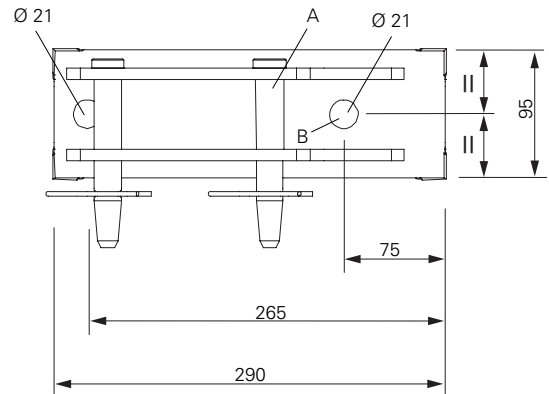


Fig. B2.05a

The following proof must also be provided:

1. The push-pull prop must be capable of bearing the respective prop load with the extension length available.
 2. The dowel must be capable of bearing the specified dowel force.
- If the load at hand F is lower than the value in the table, then the resulting dowel force can be reduced linearly.

α [°]	Tension				Pressure			
	perm. prop load F [kN]	res. dowel force R [kN]	horizont. comp. dowel load R_H [kN]	vert. comp. dowel load R_V [kN]	perm. prop load F [kN]	res. dowel force R [kN]	horizont. comp. dowel load R_H [kN]	vert. comp. dowel load R_V [kN]
0	52.8	58.0	53.3	22.9	10.6	18.8	10.6	15.5
10	44.4	49.9	43.7	24.1	12.3	18.1	12.1	13.4
20	38.9	44.3	36.6	25.0	14.1	16.4	13.3	9.7
30	35.2	39.7	30.5	25.4	16.7	15.1	14.4	4.2
40	33.2	36.2	25.4	25.8	33.7	25.8	25.8	0.0
50	32.2	33.3	20.7	26.1	52.8	34.2	34.2	0.0
60	37.5	42.8	18.7	38.5	52.8	26.6	26.6	0.0
70	27.3	39.5	9.3	38.4	52.8	18.2	18.2	0.0
80	19.6	34.3	3.4	34.1	52.8	9.2	9.2	0.0
90	15.1	30.6	0.0	30.6	52.8	0.0	0.0	0.0
100	12.3	27.7	2.1	27.6	52.8	9.2	9.2	0.0
110	10.6	25.7	3.6	25.5	52.8	18.2	18.2	0.0
120	9.6	24.3	4.8	23.8	52.8	26.6	26.6	0.0
130	9.0	23.2	5.8	22.4	52.8	34.2	34.2	0.0
140	8.7	22.2	6.7	21.1	52.8	40.4	40.4	0.0
150	8.7	21.3	7.6	19.9	52.8	45.7	45.7	1.2
160	9.0	20.4	8.5	18.6	52.8	50.8	50.1	8.8
170	9.6	19.6	9.4	17.2	52.8	54.9	52.5	16.1
180	10.6	18.8	10.6	15.5	52.8	58.0	53.3	22.9

B2 Base plate loads

Base Plate-2 for RSS

Item no. 406000

(Fig. B2.07 + B2.08 + B2.09)

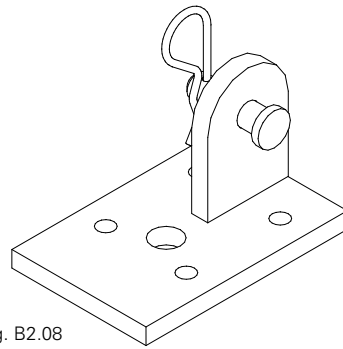


Fig. B2.08

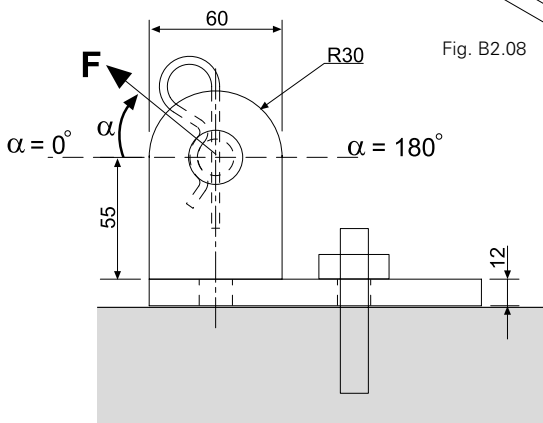


Fig. B2.07

F = Resulting force from push-pull prop and kicker brace load

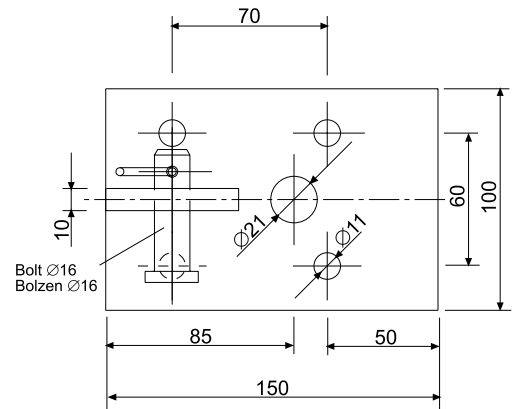


Fig. B2.09

The following proof must also be provided:

1. The push-pull prop must be capable of bearing the respective prop load with the extension length available.
2. The dowel and the concrete must be capable of bearing the specified dowel force.

If the load at hand F is lower than the value in the table, then the resulting dowel force can be reduced linearly.

α [°]	Tension		Pressure	
	perm. prop load F [kN]	res. dowel force [kN]	perm. prop load F [kN]	res. dowel force [kN]
0	14.4	18.1	10.0	14.4
10	14.6	18.6	12.1	14.5
20	14.8	18.5	14.8	14.6
30	15.6	18.5	15.5	13.4
40	16.9	18.5	16.8	12.9
50	19.1	19.8	19.1	12.3
60	22.6	28.3	22.7	11.4
70	20.4	30.2	29.2	10.0
80	14.3	24.4	34.4	6.0
90	11.3	21.5	34.4	0.0
100	9.6	19.7	34.4	6.0
110	8.5	18.5	29.2	10.0
120	7.9	17.6	22.7	11.6
130	7.6	16.8	19.1	13.1
140	7.5	16.1	16.9	14.4
150	7.7	15.6	15.5	15.6
160	8.1	15.1	14.8	16.6
170	8.8	14.7	14.6	17.6
180	10.0	14.4	14.4	18.1

Quick Connector Head RS-2

Item no. 127190 (Fig. B3.03)

Maximum accommodated load F_{perm} [kN] Minimum concrete strength 15 N/mm ² – prefabricated element thickness ≥ 5 cm						
β	20°	30°	40°	45°	50°	60°
F_{perm}	13.0	14.7	16.9	15.6	11.9	8.2

Loads to be transferred into the prefabricated element [kN]												
β	20°		30°		40°		45°		50°		60°	
actual push-pull prop load	FSZ	FSQ	FSZ	FSQ	FSZ	FSQ	FSZ	FSQ	FSZ	FSQ	FSZ	FSQ
1.0	0.59	0.94	0.51	0.87	1.19	0.77	1.53	0.70	1.88	0.64	2.51	0.50
2.0	1.18	1.88	1.03	1.73	2.38	1.53	3.07	1.41	3.75	1.29	5.01	1.00
4.0	2.35	3.76	2.06	3.46	4.76	3.06	6.13	2.82	7.50	2.57	10.02	2.00
6.0	3.53	5.64	3.08	5.20	7.13	4.60	9.20	4.23	11.26	3.86	15.04	3.00
8.0	4.70	7.52	4.11	6.93	9.51	6.13	12.26	5.64	15.01	5.14	20.05	4.00
10.0	5.88	9.40	5.14	8.66	11.89	7.66	15.33	7.05	18.76	6.43	25.06	5.00
12.0	7.06	11.28	6.17	10.39	14.27	9.19	18.39	8.45	22.51	7.72	30.07	6.00
14.0	8.23	13.16	7.20	12.12	16.65	10.72	21.46	9.86	26.26	9.00	35.08	7.00
16.0	9.41	15.04	8.22	13.86	19.02	12.26	24.52	11.27	30.02	10.29	40.10	8.00

FSZ = bolt tensile force

FSQ = bolt shear force

Verifying the transfer of these forces into the prefabricated element takes place on the construction site.

Base Plate-3 RS 210-1400

Item no. 126666 (Fig. B3.01 + B3.03)

Maximum accommodated load from the push-pull prop [kN]						
β	20°	30°	40°	45°	50°	60°
F [kN]	22.5	24.9	28.7	31.4	30.3	18.4

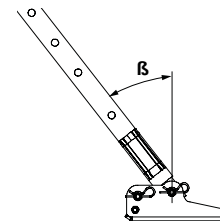


Fig. B3.01

Base Plate-2 RS 210-1400

Item no. 417343 (Fig. B3.02 + B3.03)

Maximum accommodated load from the push-pull prop [kN]						
β	20°	30°	40°	45°	50°	60°
F [kN]	6.6	16.9	18.2	13.1	8.0	4.7

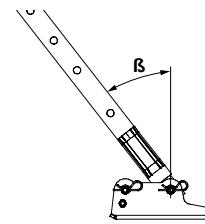


Fig. B3.02

Maximum accommodated load – push-pull props – tension/compression				
RS 210	Extension length L [m]	1.30 – 2.00	2.10	–
	perm. FD [kN]	25.0	23.6	–
RS 260	Extension length L [m]	2.30	2.60	–
	perm. FD [kN]	25.0	22.1	–
RS 300	Extension length L [m]	1.90 – 2.30	2.50	3.00
	perm. FD [kN]	25.0	21.6	14.2
RS 450	Extension length L [m]	2.80 – 3.60	4.00	4.50
	perm. FD [kN]	25.0	17.2	–

Fig. B3.03

Permissible area of application
quick connector head: $\beta = 20^\circ - 60^\circ$

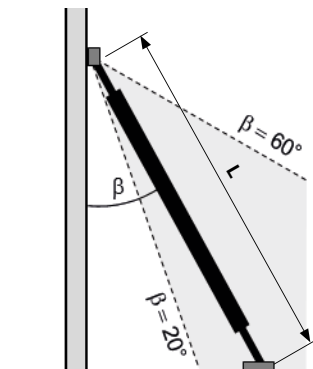


Fig. B3.03

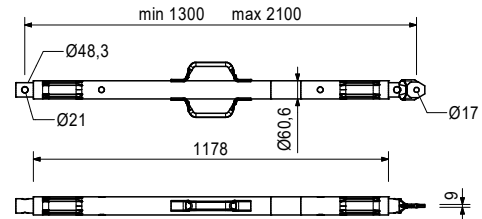
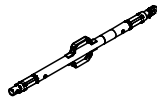
RS and RSS Push-Pull Props



Item. no.	Weight kg
117466	10.600

Push-pull prop RS 210, galv.
 Extension length L = 1.30 - 2.10 m.
 For aligning PERI formwork systems and prefabricated concrete elements.

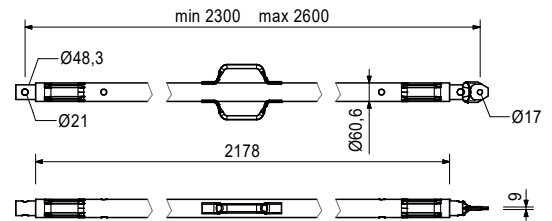
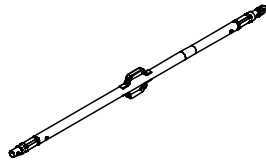
Note
 See PERI Design Tables for permissible load.



118238	12.100
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Push-pull prop RS 260, galv.
 Extension length L = 2.30 - 2.60 m.
 For aligning PERI formwork systems and prefabricated concrete elements.

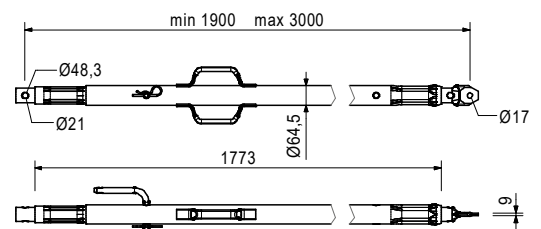
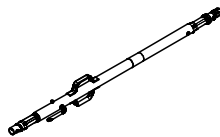
Note
 See PERI Design Tables for permissible load.



117467	15.500
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Push-pull prop RS 300, galv.
 Extension length L = 1.90 - 3.00 m.
 For aligning PERI formwork systems and prefabricated concrete elements.

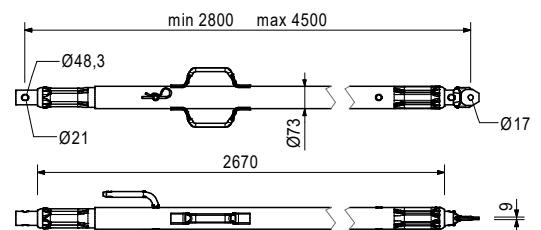
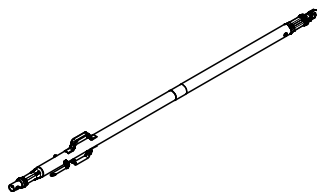
Note
 See PERI Design Tables for permissible load.



117468	23.000
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Push-pull prop RS 450, galv.
 Extension length L = 2.80 - 4.50 m.
 For aligning PERI formwork systems and prefabricated concrete elements.

Note
 See PERI Design Tables for permissible load.

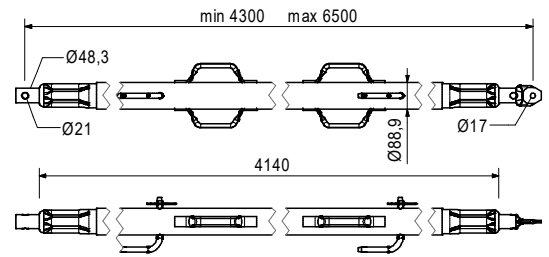
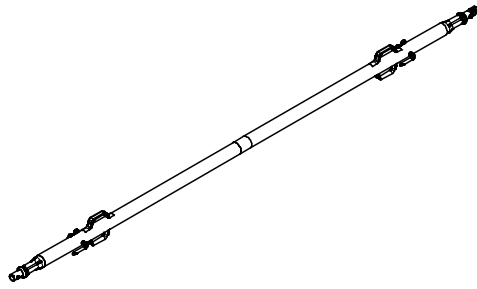


RS and RSS Push-Pull Props

Item. no.	Weight kg
117469	39.900

Push-pull prop RS 650, galv.
 Extension length L = 4.30 – 6.50 m.
 For aligning PERI formwork systems and prefabricated concrete elements.

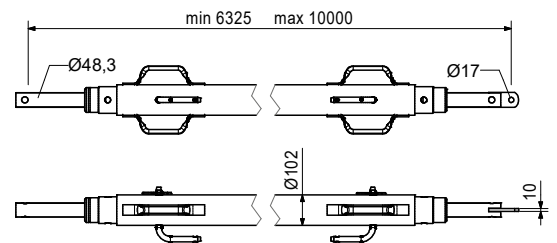
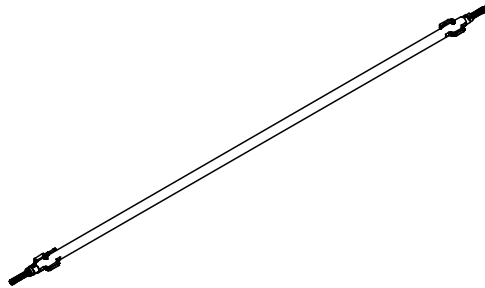
Note
 See PERI Design Tables for permissible load.



028990	115.000
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Push-pull prop RS 1000, galv.
 Extension length L = 6.40 – 10.00 m.
 For aligning PERI formwork systems.

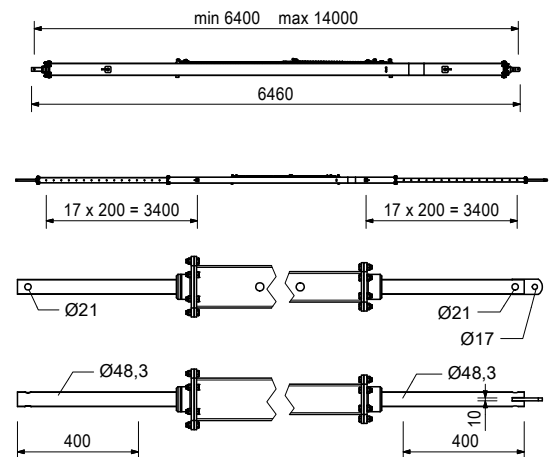
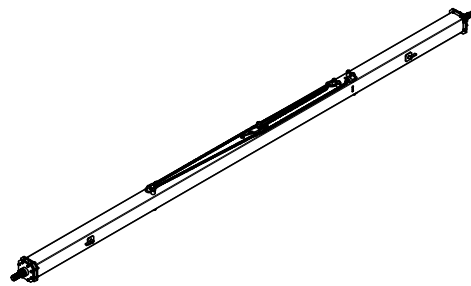
Note
 See PERI Design Tables for permissible load.



103800	271.000
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Push-pull prop RS 1400, galv.
 Extension length L = 6.40 – 14.00 m.
 For aligning PERI formwork systems.

Note
 See PERI Design Tables for permissible load.
 Chain attached/detached from the ground.



RS and RSS Push-Pull Props



Item. no. Weight kg

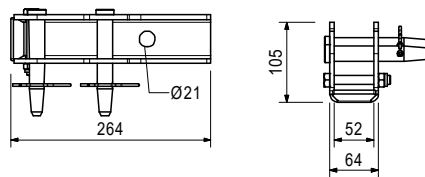
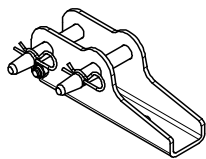
126666 3.070

Base Plate-3 for RS 210 – 1400

For assembling the RS 210, RS 260, RS 300, RS 450, RS 650, RS 1000 and RS 1400 push-pull props.

Complete with

- 2 pc. 105400 bolts \varnothing 20 x 140, galv.
- 2 pc. 018060 cotter pin 4/1, galv.
- 1 pc. 113063 bolt ISO 4014 M12 x 80-8.8, galv.
- 1 pc. 113064 hex nut ISO 7040-M12-8-G, galv.



Accessories

124777 0.210

Anchor Bolt PERI 14/20 x 130

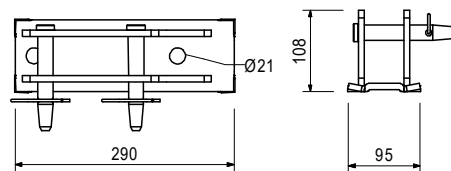
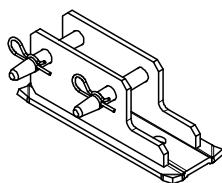
102018 4.880

Base Plate-2 for RS 1000/1400, galv.

For fitting the Push-Pull Props RS 210, 260, 300, 450, 650, 1000, 1400 and heavy-duty spindles.

Complete with

- 2 pc. 105400 bolts \varnothing 20 x 140, galv.
- 2 pc. 018060 cotter pin 4/1, galv.



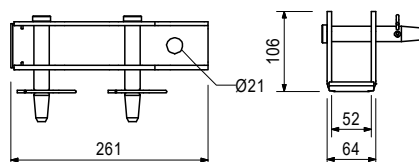
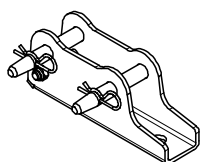
417343 3.250

Base Plate-2 for RS 210– 1400, galv.

For assembling the RS 210, RS 260, RS 300, RS 450, RS 650, RS 1000 and RS 1400 push-pull props.

Complete with

- 2 pc. 105400 bolts \varnothing 20 x 140, galv.
- 2 pc. 018060 cotter pin 4/1, galv.



Accessories

124777 0.210

Anchor Bolt PERI 14/20 x 130

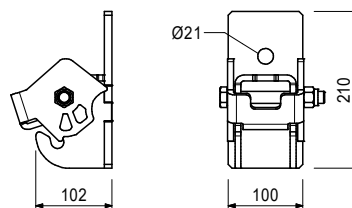
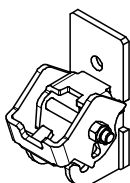
127190 4.200

Quick Connector Head RS-2

For aligning prefabricated concrete elements.

Complete with

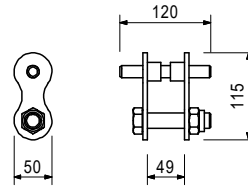
- 1 pc. 105402 bolt ISO 4014 M16 x 120-8.8, galv.
- 1 pc. 070890 nut ISO 7040 M16-8, galv.



RS and RSS Push-Pull Props

Item. no.	Weight kg
117726	1.050

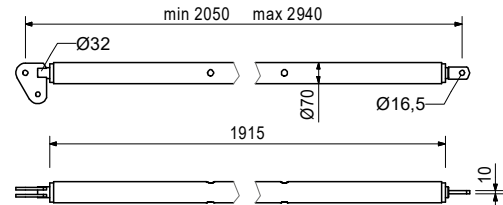
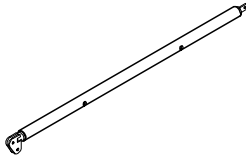
Push-Pull Prop Adaptor RS
For aligning prefabricated concrete elements.



328010	17.900
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Push-Pull Prop RSS I
Extension length L = 2.05 – 2.94 m.
For aligning PERI formwork systems.

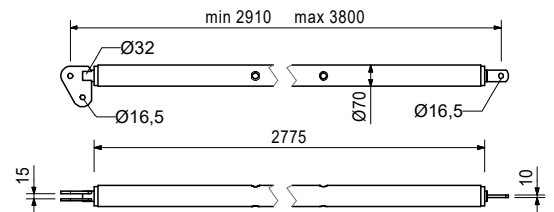
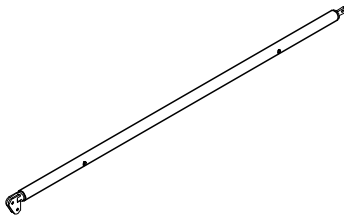
Note
See PERI Design Tables for permissible load.



328020	22.000
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Push-Pull Prop RSS II
Extension length L = 2.91 – 3.80 m.
For aligning PERI formwork systems.

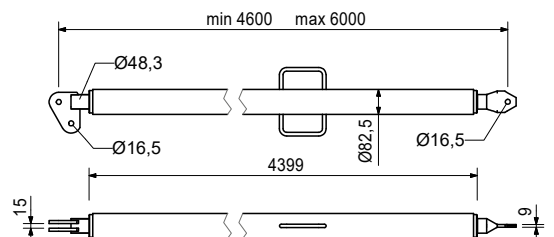
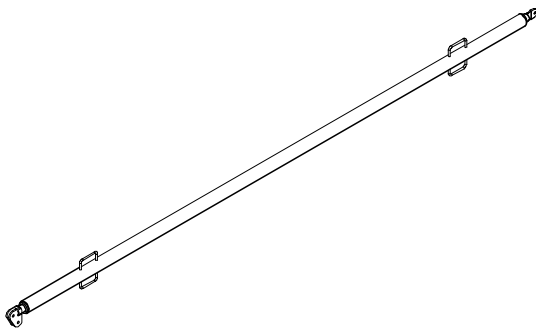
Note
See PERI Design Tables for permissible load.



328030	38.400
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Push-Pull Prop RSS III
Extension length L = 4.60 – 6.00 m.
For aligning PERI formwork systems.

Note
See PERI Design Tables for permissible load.

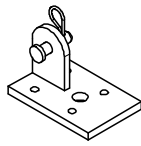


RS and RSS Push-Pull Props

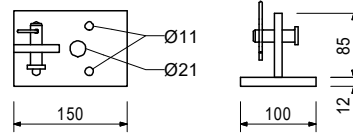


Item. no.	Weight kg
406000	1.820

Base Plate-2 for RSS, galv.
For assembling RSS Push-pull Props.



Complete with
1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.



Accessories
Anchor Bolt PERI 14/20 x 130

124777	0.210
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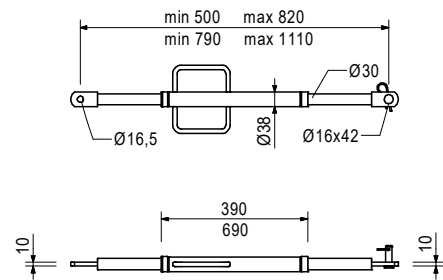
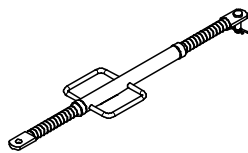
		Kicker brace AV	Kicker Braces AV 82	Kicker Braces AV 111
057087	3.510			
057088	4.200			

For aligning PERI formwork systems.

min. L	max. L
500	820
790	1,110

Complete with
1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.

Note
See PERI Design Tables for permissible load.

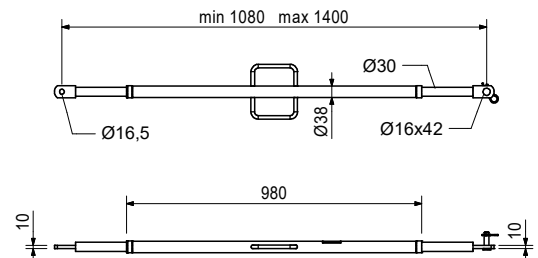
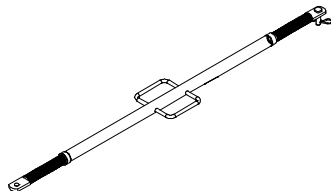


028110	4.850	Kicker Braces AV 140
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Extension length L = 1.08 – 1.40 m.
For aligning PERI formwork systems.

Complete with
1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.

Note
See PERI Design Tables for permissible load.



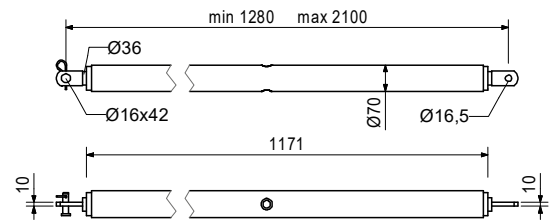
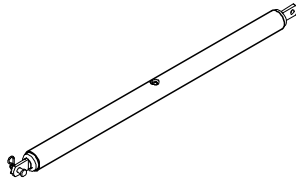
RS and RSS Push-Pull Props



Item. no.	Weight kg
408135	12.900

Kicker Braces AV 210
 Extension length L = 1.28 – 2.10 m.
 For aligning PERI formwork systems.

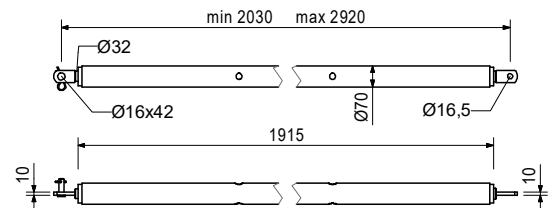
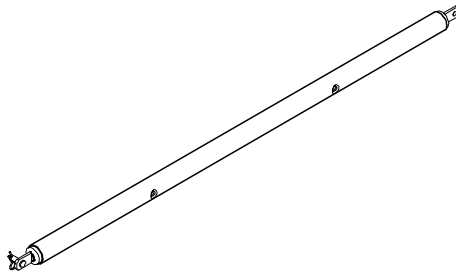
Complete with
 1 pc. 027170 bolts Ø 16 x 42, galv.
 1 pc. 018060 cotter pin 4/1, galv.
Note
 See PERI Design Tables for permissible load.



328120	17.000
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Kicker Braces AV RSS III
 Extension length L = 2.03 – 2.92 m.
 For aligning PERI formwork systems.

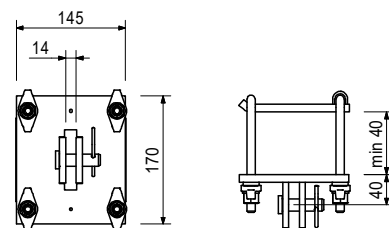
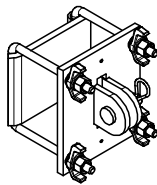
Complete with
 1 pc. 027170 bolts Ø 16 x 42, galv.
 1 pc. 018060 cotter pin 4/1, galv.
Note
 See PERI Design Tables for permissible load.



028050	4.550
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Girder Headpiece GT 24, galv.
 For connecting push-pull props and kicker braces to the GT 24 Girder.

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



RS and RSS Push-Pull Props



Item. no. Weight kg

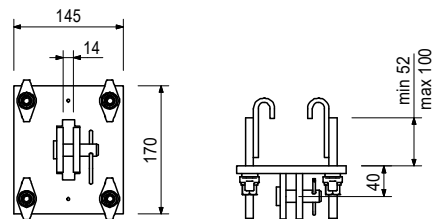
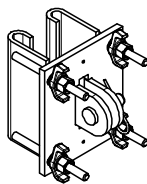
028070 4.680

Girder Headpiece GT 24/A, galv.

For connecting push-pull props and kicker braces to extended GT 24 Girders in the area of the Extension Splice 24-2.

Complete with

1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.



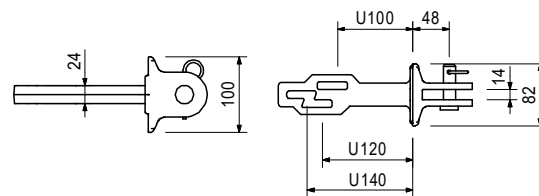
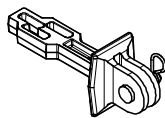
028060 1.940

Wedge Headpiece SRZ/SRU

For connecting push-pull props and kickers to the Steel Walers SRZ and SRU Profile U100 – U140.

Complete with

1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.



Accessories

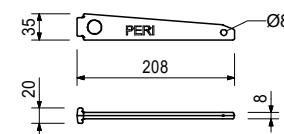
024250 0.331

Wedge K, galv.

024250 0.331

Wedge K, galv.

For coupling compression plate KDP, wedge head piece SRZ/SRU and waler connector SB-A, B, C.



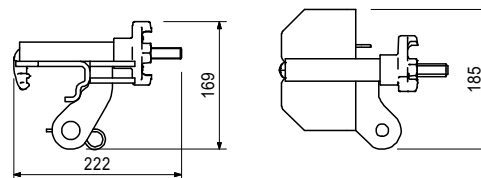
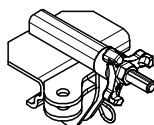
023660 3.300

Clamping Head-2, galv.

For connecting push-pull props and kicker braces to MAXIMO and TRIO panels. Mounting to horizontal and vertical struts.

Complete with

1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.



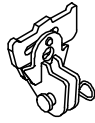
RS and RSS Push-Pull Props

Item. no. Weight kg

127628 1.130

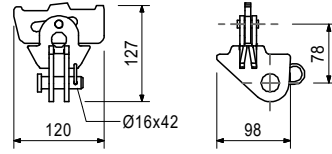
DOMINO Brace Connector DRA-2

For connecting push-pull props and kicker braces to DOMINO panels.



Complete with

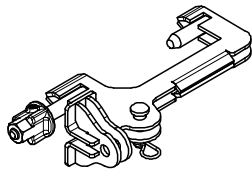
1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.



125329 3.050

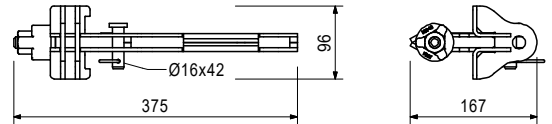
Brace Connector-2, LIWA

For connecting push-pull props and kicker braces to LIWA panels. Mounting to horizontal and vertical struts.



Complete with

1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 018060 cotter pin 4/1, galv.



117169 1.520

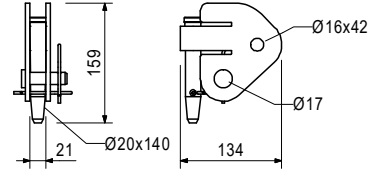
Brace Connector LIWA

For connecting push-pull props and kicker braces to LIWA panels.



Complete with

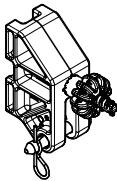
1 pc. 027170 bolts \varnothing 16 x 42, galv.
1 pc. 105400 bolts \varnothing 20 x 140, galv.
2 pc. 018060 cotter pin 4/1, galv.



128294 0.907

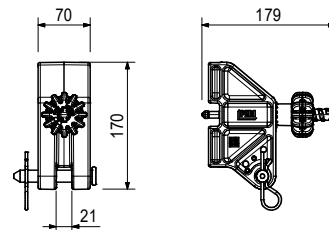
DUO brace connectors

For connecting push-pull props and kicker braces to DUO panels.



Complete with

1 pc. 018050 bolt \varnothing 16 x 65/86, galv.
1 pc. 018060 cotter pin 4/1, galv.

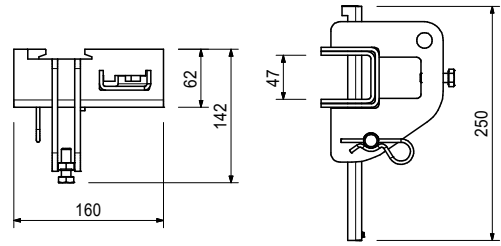
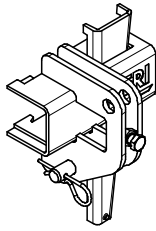


RS and RSS Push-Pull Props



Item. no.	Weight kg
123559	2.900

Brace Connector UNO



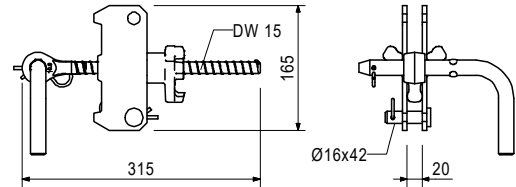
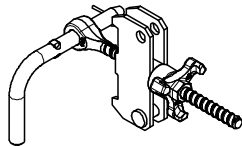
037190	3.010
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Brace Connector-3 RAPID, galv.

For connecting push-pull props and kicker braces to RAPID Column Frame.

Complete with

- 1 pc. 037160 locking pin \varnothing 20 x 205, galv.
- 1 pc. 027170 bolts \varnothing 16 x 42, galv.
- 2 pc. 018060 cotter pin 4/1, galv.



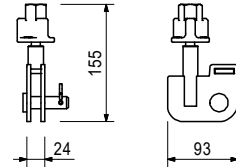
037530	1.130
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Brace Connector QUATTRO QR

For connecting push-pull props and kicker braces to QUATTRO and LICO column elements.

Complete with

- 1 pc. 027170 bolts \varnothing 16 x 42, galv.
- 1 pc. 018060 cotter pin 4/1, galv.



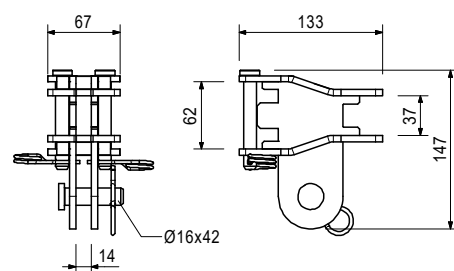
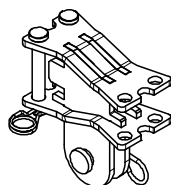
129565	1.680
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Brace Connector MPR

For connecting Push-Pull Props in the MP system.

Complete with

- 1 pc. 027170 bolts \varnothing 16 x 42, galv.
- 1 pc. 018060 cotter pin 4/1, galv.
- 2 pc. 129560 collar stud \varnothing 12
- 2 pc. 127322 cotter pin 3, 2/2, galv.



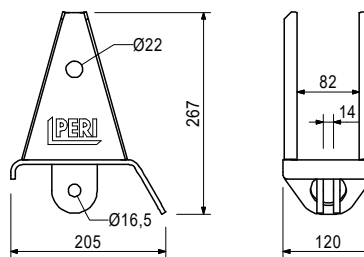
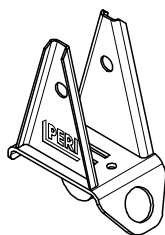
RS and RSS Push-Pull Props



Item. no.	Weight kg
108213	2.590

Brace Connector MPB 24

For connecting push-pull props or braces to Aluminium Beam MPB 24.



Accessories

104031	0.462
018060	0.014

Fitting Pin Ø 21 x 120

Cotter Pin 4/1, galv.

131723	1.440
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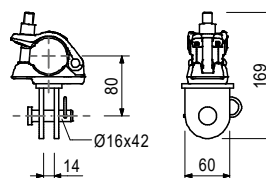
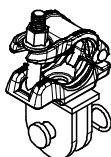
Brace Connector HDR-2

For connecting push-pull props and kicker braces to components with Ø 48 mm.

Complete with

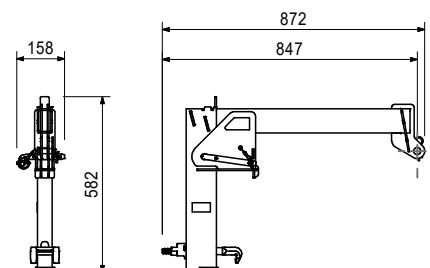
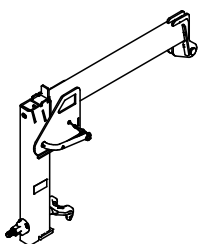
1 pc. 027170 bolts Ø 16 x 42, galv.

1 pc. 018060 cotter pin 4/1, galv.



134623	18.300
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Brace Connector formlining side MX RS



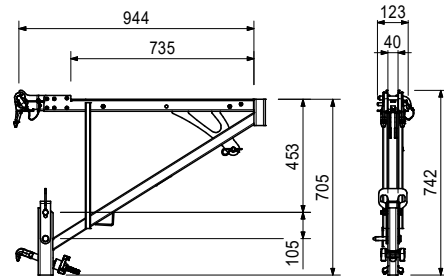
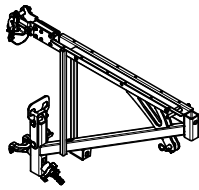
RS and RSS Push-Pull Props



Item. no.	Weight kg
126540	14.600

Scaffold Bracket MXK-RS

For mounting a working and concreting scaffold on MAXIMO and TRIO.



Item. no.	Weight kg
126360	4.920

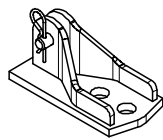
Accessories

Guardrail Post MXK

028080	2.970
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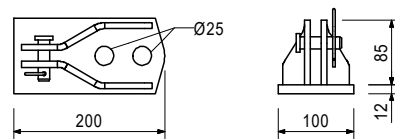
Connector Plate AV/Push-Pull Prop

For connecting push-pull props and kicker braces to the Main Beam HDT.



Complete with

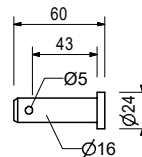
1 pc. 018060 cotter pin 4/1, galv.
1 pc. 027170 bolts \varnothing 16 x 42, galv.



027170	0.102
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Pin \varnothing 16 x 42, galv.

For diverse connections.



Item. no.	Weight kg
018060	0.014

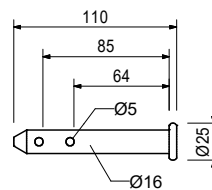
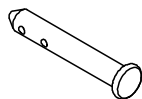
Accessories

Cotter Pin 4/1, galv.

018050	0.171
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Bolt \varnothing 16 x 65/86, galv.

For diverse connections.



Item. no.	Weight kg
018060	0.014

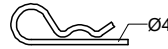
Accessories

Cotter Pin 4/1, galv.

RS and RSS Push-Pull Props

Item. no. Weight kg

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



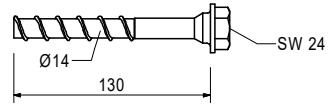
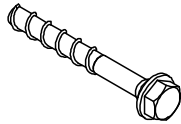
124777 0.210

Anchor Bolt PERI 14/20 x 130

For temporary attachment to reinforced concrete components.

Note

Take the PERI Data Sheet into consideration!
Hole \varnothing 14 mm.



**The optimal System
for every Project and
every Requirement**



Wall Formwork



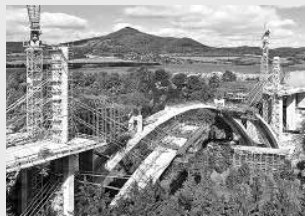
Column Formwork



Slab Formwork



Climbing Systems



Bridge Formwork



Tunnel Formwork



Shoring Systems



Construction Scaffold



Facade Scaffold



Industrial Scaffold



Access



Protection Scaffold



Safety Systems



System-Independent Accessories



Services



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