

VARIOKIT Cantilever Bracket

Assembly Instructions

Edition 12/2009



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VARIOKIT Cantilever Bracket

Features

The PERI Cantilever Bracket is used for the concreting of cantilevers on bridges cast in-situ or constructed using precast structural elements.

The system can be flexibly adapted to suit a wide range of cantilever geometries and carriageway radii. The main components consist of standardised PERI parts taken from the "VARIOKIT" engineering construction kit.

The basis of the structure is formed by 2 parallel brackets comprised of SRU steel walers and SLS spindles which combine to create one platform unit according to the cantilever dimensions and bridge radius.

The two sections are connected by means of wind bracings.

The PERI bracket is a complete system installed from below.

- No negative impact on the bridge through the formwork carriage unit and direct accessibility

Intended use

1. PERI products have been exclusively designed as technical work equipment for use in the industrial and commercial sectors by suitably trained personnel.
2. These assembly instructions serve as a basis for the building-related risk assessment and the instructions for the provision and use of the system by the contractor (user). However, this does not replace these.
3. Only PERI original components may be used. The use of other products and spare parts represent a misapplication with associated safety risks.
4. The components are to be inspected before each use to ensure that they are in perfect condition as well as being able to function properly.
5. Changes to PERI components are not permitted and represent a misapplication with associated safety risks.
6. Safety instructions and permissible loads must be observed at all times.
7. Components provided by the contractor must conform with the characteristics required in these assembly instructions as well as all valid construction guidelines and standards. In particular, the following apply if nothing else is specified:
 - Timber components:
Strength Class C24 for Solid Wood EN 338.
 - Scaffold tubes:
galvanized steel tubing with minimum dimensions \varnothing 48.3 x 3.2 mm according to EN 12811-1:2003 4.2.1.2.
 - Scaffold tube couplings according to EN 74.
8. Any deviations from the standard configuration may only be carried out after a separate risk assessment has been done by the contractor (user). On this basis, appropriate measures for the working safety and stability are to be implemented.

Work safety

The structures shown in these assembly instructions are examples and feature only one component size. They are valid accordingly for all component sizes contained in the standard configuration.

1) General safety instructions

1. Deviations from the standard configuration and/or intended use present a potential safety risk.
2. All country-specific laws, standards and other safety regulations are to be taken into account whenever our products are used.
3. During unfavourable weather conditions, suitable precautions and measures are to be taken in order to ensure both working safety and stability.
4. The contractor (user) must ensure the stability during all stages of construction. He must ensure and verify that all loads which occur are safely transferred.
5. The contractor (user) has to provide safe and secure working areas which can be safely accessed. Areas of risk must be cordoned off and clearly marked. Hatches and openings on accessible working areas must be kept closed during working operations.
6. For better comprehensibility, detailed drawings are partly incomplete. The safety installations which have possibly not been featured in these detailed drawings must nevertheless be available.

2) Storage and transport

1. Do not drop the components.
2. Store and transport components so that no unintentional change in their position is possible. Detach lifting gear from the lowered units only if these are in a stable position and no unintentional change is possible.
3. When moving the components, make sure they are lifted and set down so that any unintentional tilting over, falling apart, sliding or rolling away is avoided.
4. Use only suitable load-carrying equipment to move the components as well as using the designated load-bearing points.
5. During the lifting and moving procedure, ensure all loose parts are removed or secured.
6. During the moving procedure, always use a guide rope.
7. Move components on clean, flat and sufficiently load-bearing surfaces only.

3) System-specific safety instructions

1. The contractor must ensure that assembly, modification and dismantling, moving, as well as the use and handling of the product is directed and supervised by technically qualified and authorised personnel.
2. All persons who work with the product must be familiar with the working instructions and safety information.
3. The contractor must ensure that the assembly instructions, other instructions required for operations or assembly, relevant planning documents, parts lists and other data are available for the user.

Assembly work

4. The contractor must ensure that appropriate and sufficient number of tools, lifting and load-securing means, suitable and sufficient place for assembly work and storage, as well as sufficient crane capacity is available for the user.
5. During assembly work, there is always the possibility that unforeseen risks may arise. The degree of risk is to be assessed in each individual case and, if necessary, measures are to be taken in order to avoid or at least minimise the danger.
6. If it is not possible to use guardrails due to operational reasons, or if these have to be removed, suitable safety equipment must be installed in their place to catch falling persons. Should the use of fall arrest equipment be inappropriate, then rope protection (personal protection equipment) can also be used if suitable fastening points are available.

7. Use a guide rope for controlled guidance of the assembly units which are suspended on the crane.
8. Site personnel should avoid remaining under loads being lifted. If working under suspended loads cannot be avoided, suitable measures are to be determined and implemented. Persons should also avoid being between suspended loads and the building.
9. It is forbidden for site personnel to enter the area below where assembly work is taking place so long as the danger area has not been provided with protection against falling, sliding and rolling objects and materials. The danger area is to be cordoned off.

Maintenance and repairs

10. Bracket components are to be inspected before each use to ensure that they are in perfect condition. As a basic principle, only fully-functional materials may be used.
11. The brackets are to be inspected for signs of damage at regular intervals by expert and authorized persons. Any dirt which could impair the functionality is to be removed immediately. Damaged components are to be identified, removed and replaced.
12. If the maximum permissible wind speed is exceeded, with temperatures outside of the range of application or after an unusual event such as fire or an earthquake, all safety-related components and the supporting structure are to be examined with regard to the functionality and load-carrying capacity before further use.

Safety-related components:

- A visual inspection is to be carried out at regular intervals by authorised personnel
- A functional check is to be carried out before climbing and/or assembly each time by qualified personnel
- Only PERI original components are to be used when replacing parts
- Repairs are to be carried out by qualified PERI personnel only
- Work on and under the platforms must stop if overloading or recurring damage occurs - then determine the cause and eliminate the problem.

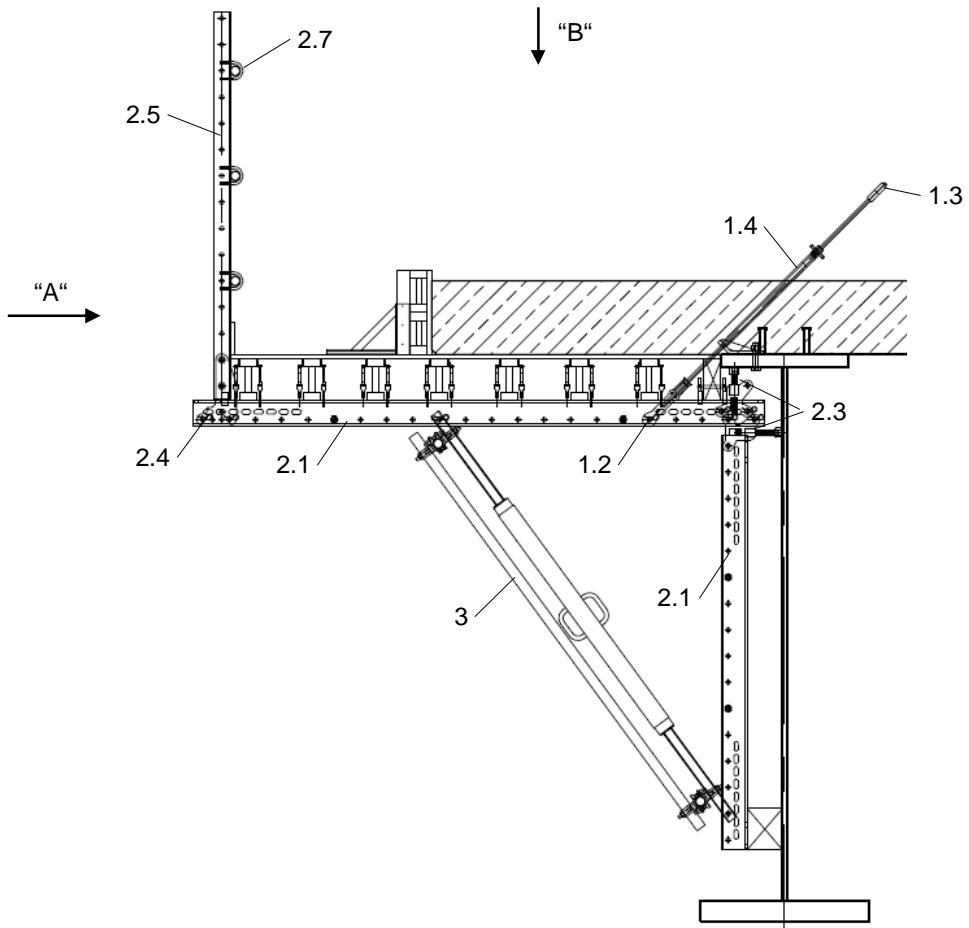
Supporting structure:

- A visual inspection is to be carried out by authorised personnel before the initial use
- Only PERI original components are to be used for repairs or as replacement parts
- Work on and under the platforms must stop if overloading or recurring damage occurs - then determine the cause and eliminate the problem.

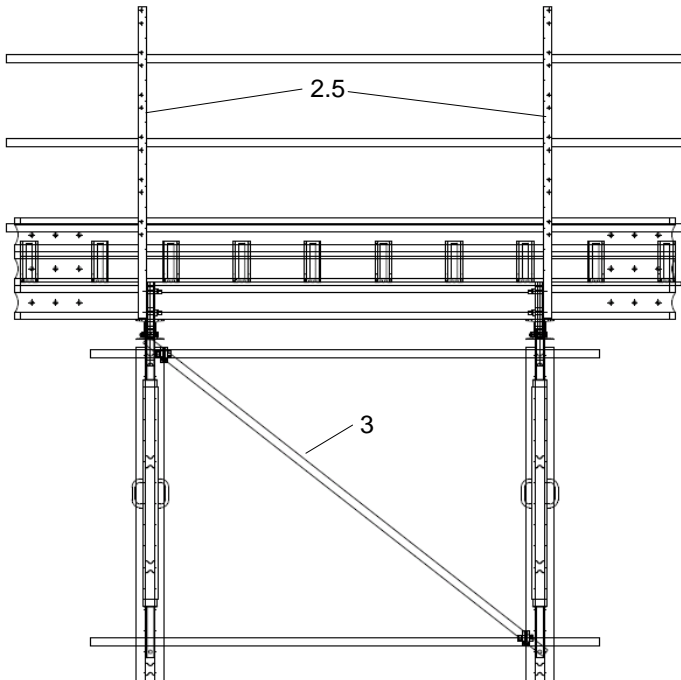
Other components:

- Repairs are to be carried out by qualified personnel and the authorising person(s) must be informed
- If any recurring damage occurs, determine the cause and eliminate the problem.

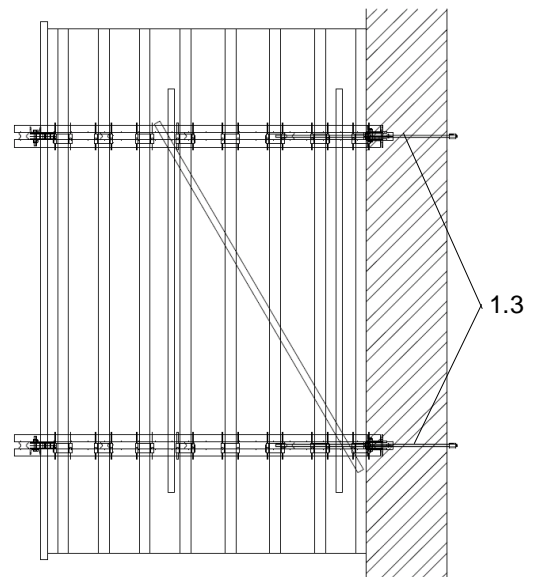
Overviews



View "A"



View "B"

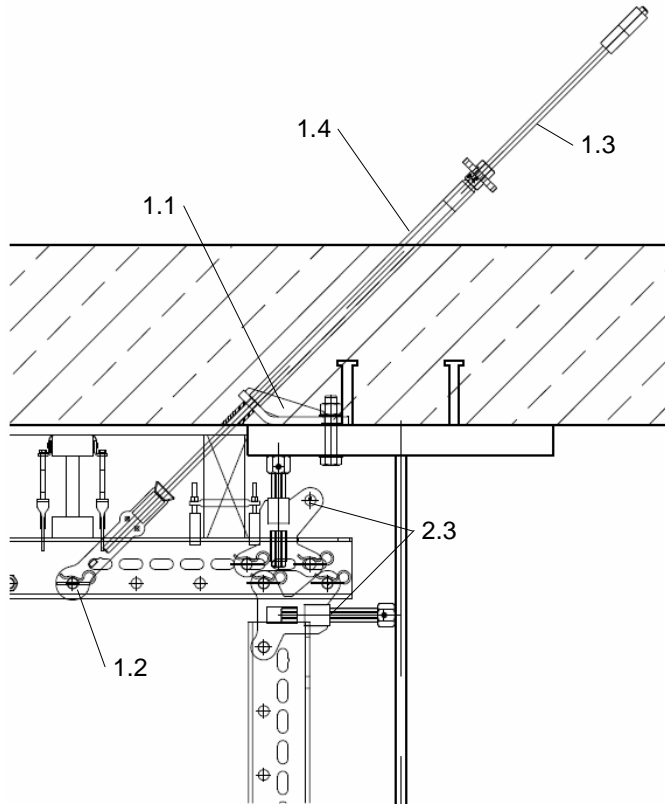


	Name	Item no.
1.	Suspension	
1.1	Anchor Bracket VARIOKIT	115808
1.2	Tie Yoke VARIOKIT	116532
1.3	Tension Rod 15 SRU	110797
1.4	Spacer Tube DW 15-65	115535
1.6	Tie Yoke Head SRU	110756
1.7	Tie Rod DW 15	
1.8	Hex. Nut DW 15 SW 30	030550
2.	Bracket VARIOKIT	
2.1	Steel Waler SRU 120	
2.2	Heavy Duty Spindle SLS	
2.3	Waler Jack with Connector VARIOKIT	115616
2.4	Connector SRU VARIOKIT	115623
2.5	Guardrail Post RCS/SRU 184	114328
2.6	Scaffold Tube Ø 48mm	
2.7	Clamp A64	110296
2.8	Hook Strap Uni HBU 20-24	104931
2.9	Formwork Girder	
2.10	Slab Stopend Angle AW	065070
3.	Wind Bracing	
3.1	Standard Coupling NK 48/48	017020
3.2	Scaffold Tube Ø 48mm L=3m	026413
3.3	Swivel Coupling DK 48/48	017010

Teil A Work Preparation

A1 Suspension Variants

A1.1 Variant 1 Anchor Bracket VARIOKIT



Mounting parts

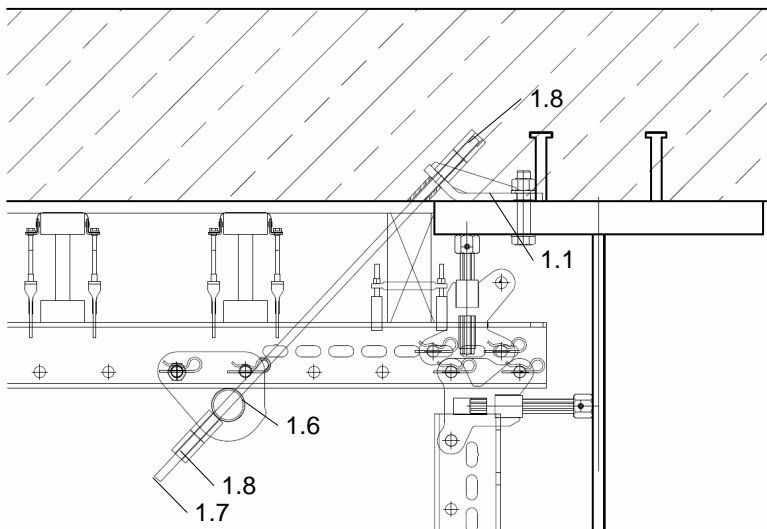
- 1.1 Anchor Bracket VARIOKIT
- 1.2 Tie Yoke VARIOKIT
- 1.3 Tension Rod 15 SRU
- 1.4 Spacer Tube DW 15-65

Mounting

Anchor Bracket VARIOKIT 1.1 to steel flange

- 1) Hex. Bolt M24 8.8
- 2) Welded to flange

A1.2 Variant 2 Steel Hanger

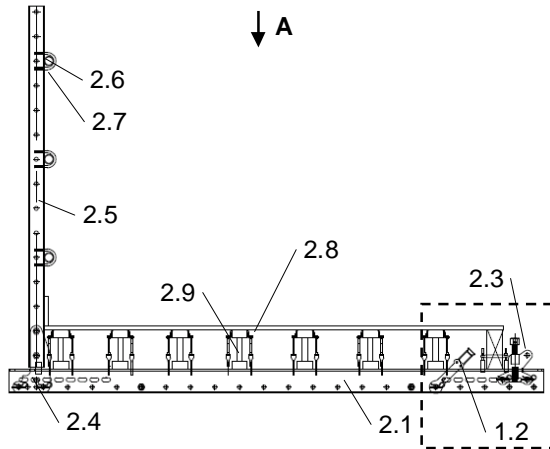


Mounting parts

- 1.1 Anchor Bracket VARIOKIT
- 1.6 Tie Yoke Head
- 1.7 Tie Rod DW 15
- 1.8 Hex. Nut DW 15 SW 30

Teil B Assembly

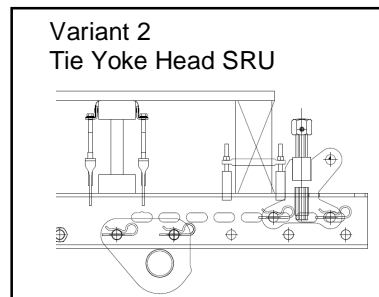
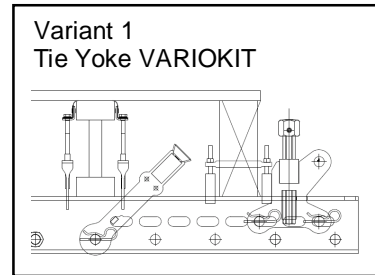
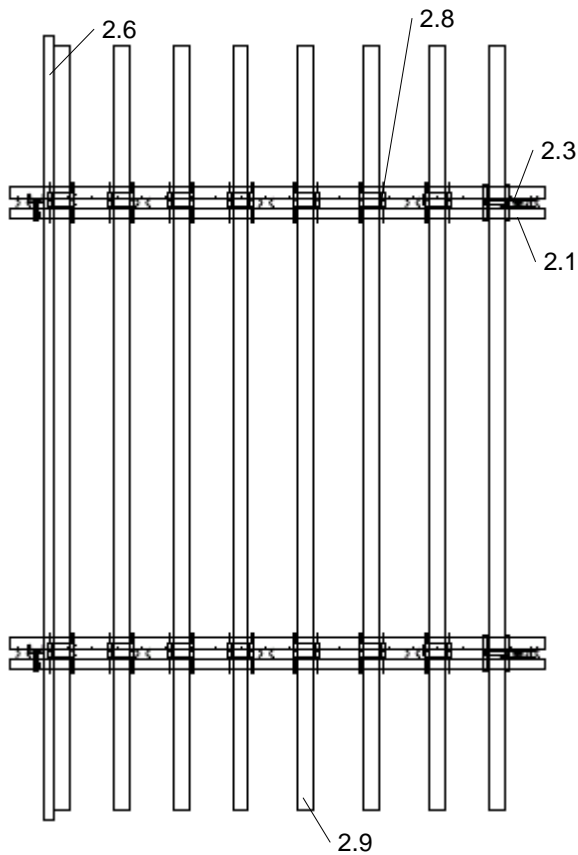
B1 Step 1



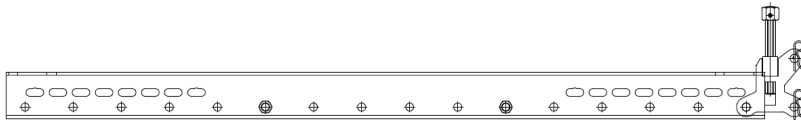
Concreting platform

- Align Steel Waler SRU 2.1 on the assembly area
- Mount Tie Yoke VARIOKIT 1.2 or Tie Yoke Head SRU 1.6 depending on the type of suspension
- Fix formwork girder 2.9 on the Steel Waler SRU 2.1 using Hook Strap HBU 2.8
- Mount Connector SRU 2.4 and Waler Jack with Connector 2.3 using Bolt Ø 21mm (4x)
- Bolt Guardrail Post RCS/SRU 184 2.5 to Connector SRU 2.4
- Mount Scaffold Tube Ø 48mm 2.6 on Guardrail Post RCS/SRU 2.5 using Clamp A64 2.7

Plan View A



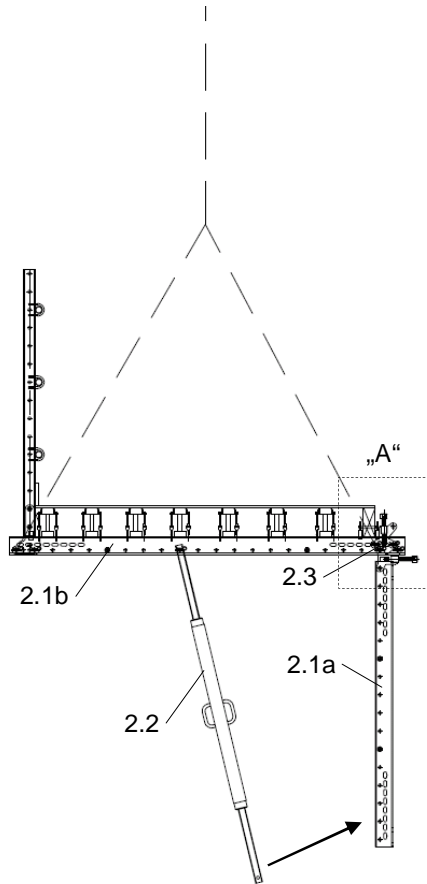
B2 Step 2



Assembly of vertical SRU

- Bolt the Waler Jack with Connector **2.3** to Steel Waler SRU **2.1**
2x Bolts Ø 21

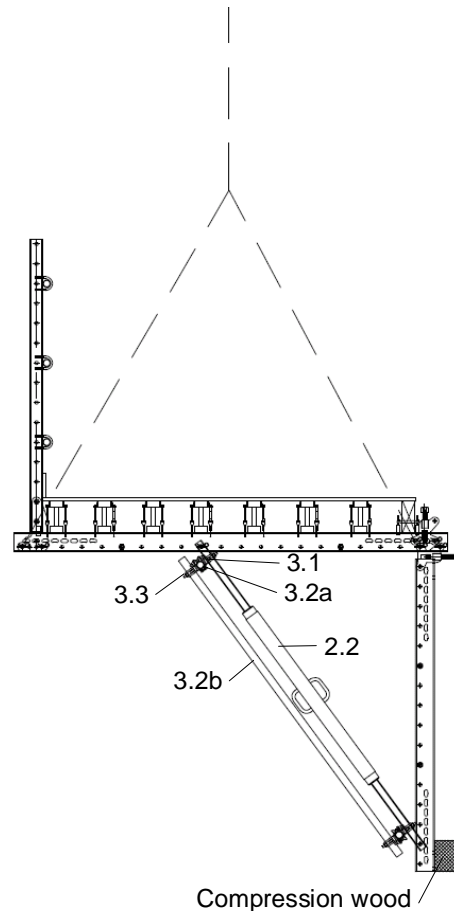
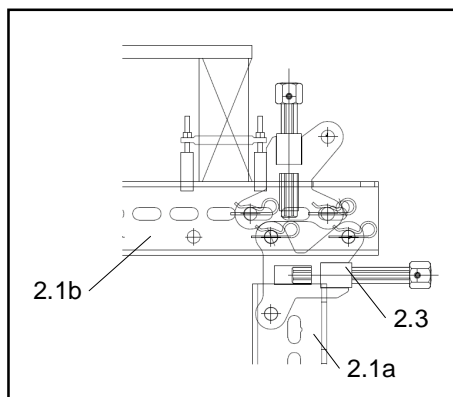
B3 Step 3



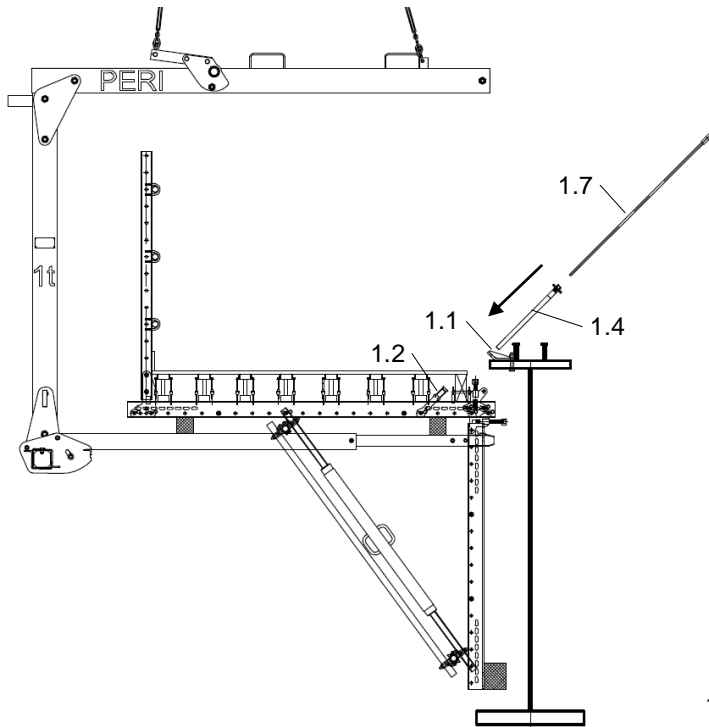
Bracket assembly

- Attach concreting platform to crane and lift
- Bolt the vertical SRU **2.1a** with the Waler Jack and Connector **VARIOKIT 2.3** in Steel Waler SRU **2.1b**
Bolts Ø 21 mm (4x)
- Bolt the SLS Spindle **2.2** in the Steel Waler SRU **2.1b** and in the Steel Waler SRU **2.1a**
- Assembly of wind bracing **3**
Mount the horizontal scaffold tube **3.2a** to the SLS Spindle **2.2** using Standard Couplings **3.1**.
Connect diagonal scaffold tube **3.2b** to horizontal **3.2a** using Swivel Couplings **3.3**

Detail "A"

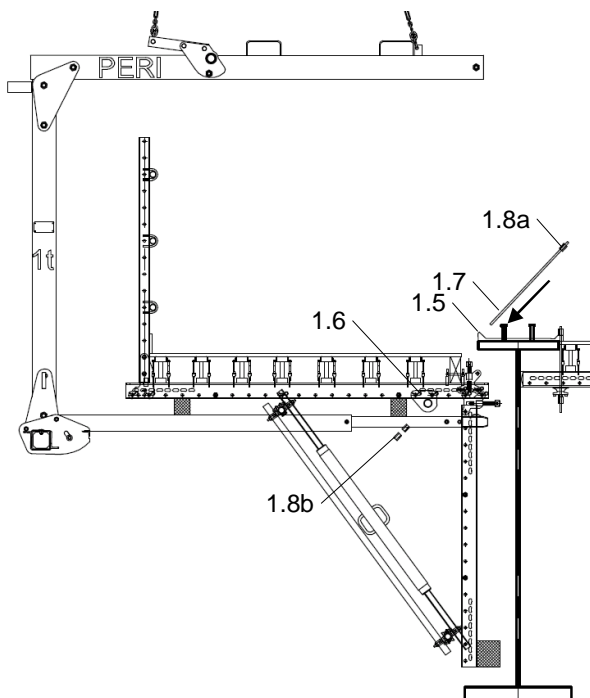
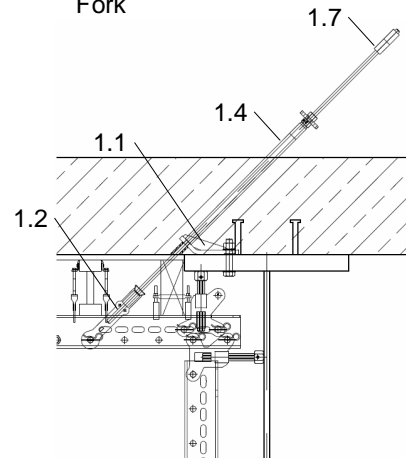


B4 Mounting on the supporting structure



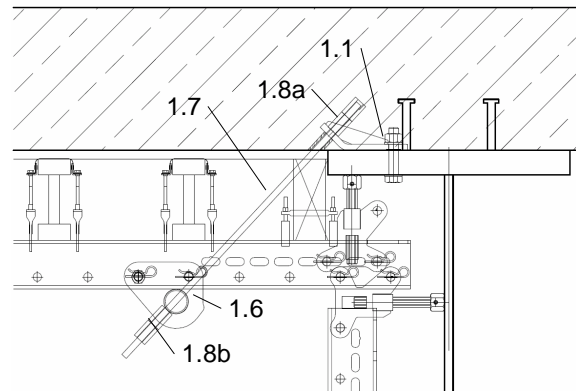
Variant 1 Anchored from the top

- Lift Concreting Bracket with Lifting Fork to the installation location
- Screw in Tension Rod DW15 1.3 to Spacer Tube DW15 1.4
- Place Spacer Tube 1.4 together with Tension Rod 1.3 on Anchor Bracket VARIOKIT 1.1
- Screw in Tension Rod 1.3 further into the Spacer Tube 1.4 until Tension Rod 1.7 is completely screwed in the Tie Yoke VARIOKIT 1.2
- Lift the next unit with the Lifting Fork

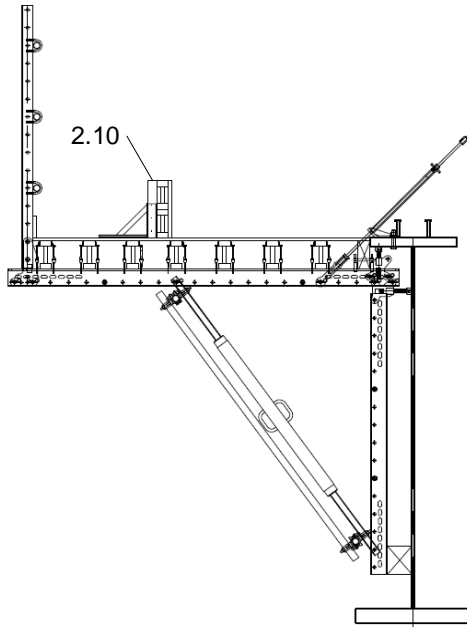


Variant 2 Anchored from below

- Lift Concreting Bracket with Lifting Fork to the installation location
- Insert Tie Rod DW15 1.7 with attached Nut DW15 1.8a through the Anchor Bracket VARIKOIT 1.1 and Tie Yoke Head SRU 1.6 and secure with Nut DW15 (2x) 1.8b

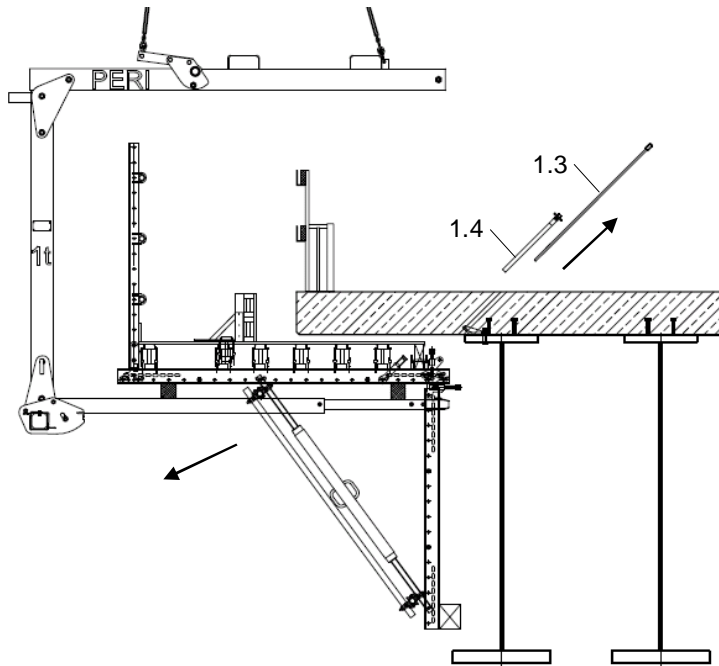


B5 Stopend assembly



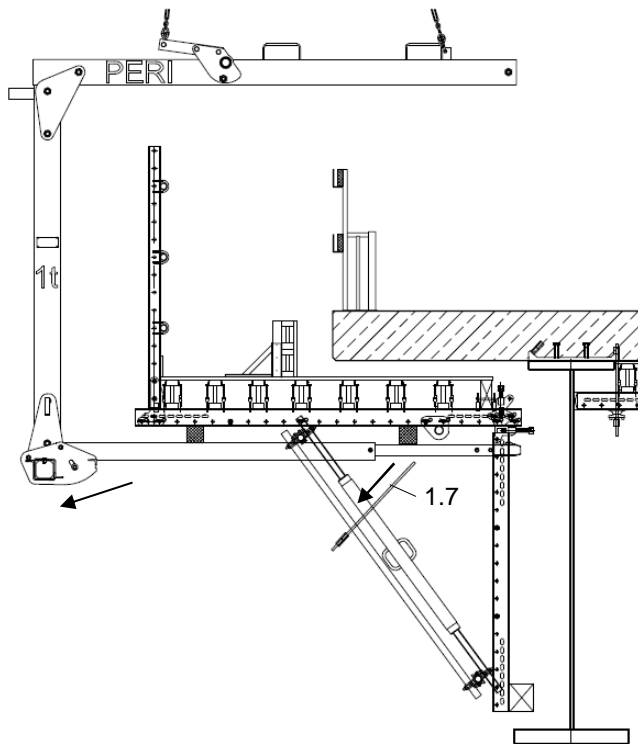
- Mount stopends using Slab Stopend Angle AW
2.10

Teil C Dismantling



Variant 1 Anchored from the top

- Lift the formwork unit with the Lifting Fork
 - Loosen Tension Rod 15 1.3 and remove
 - Loosen Spacer Tube DW 15 1.4 with ring spanner SW30 and remove
- Lift unit onto assembly area and dismantle



Variant 2 Anchored from below

- Lift the formwork unit with the Lifting Fork
 - Loosen Tie Rod DW15 1.7 and remove
- Lift unit onto assembly area and dismantle

Teil D General Information

D1 Cleaning and Maintenance

- | | Why? |
|--|--|
| <ul style="list-style-type: none">• During cleaning, ensure components are safely stored!• Components may not be cleaned whilst still attached to the crane!• Remove any concrete surplus!• Spray new formwork and new brackets on all sides before first use with release agent e.g. PERI BIO Clean• Spray formwork every time after striking with a release agent, then clean. | <p>Provides good protection against sticking and corrosion before first dirt accumulation. Prevents complete moistening with a release agent.</p> <p>Helps to remove concrete surplus and makes cleaning easier. Removing by force or scraping off is not necessary. Formlining and paint remain intact.</p> |
| <ul style="list-style-type: none">• For longer storage periods, e.g. bad weather, store components in clean condition and sprayed. Any damage to the paintwork is to be repaired with anti-corrosion paint. | <p>Steel components are protected against corrosion and the formlining against weathering.</p> |
| <ul style="list-style-type: none">• Spray (grease if necessary) moving parts regularly with a release agent. | <p>Removes rust, prevents corrosion and keeps parts in good working order.</p> |
| <ul style="list-style-type: none">• Ensure that elements and accessories are properly stored. | <p>Prevents damage to the components. Damage to the formlining through any indentations is avoided.</p> |
| <ul style="list-style-type: none">• Never use unnecessary force during assembly and dismantling. | <p>Maintains the functionality of the parts as well as faster re-use.</p> |

D2 Transport

- | | Why? |
|--|---|
| <ul style="list-style-type: none">• Move components with suitable and secure transport means and lifting gear.• Dismantle platforms, form storage units, and combine into transportation units. | <p>Avoids damage caused by inappropriate transport means.</p> <p>Small parts are not lost, assembly groups remain together.</p> |
| <ul style="list-style-type: none">• Place pieces of timber between the elements. Secure transportation units e.g. steel bands or scaffold tubes. | <p>Securing parts will be protected; dents, shifting of elements or falling on top of each other is avoided.</p> |
| <ul style="list-style-type: none">• Secure transportation units with suitable load-securing equipment. | <p>Elements remain firmly in position during transportation – no shifting or falling.</p> |

D3 Storage

- | | Why? |
|--|--|
| <ul style="list-style-type: none">• Store all parts in bundles. Use closed containers. | <p>Parts can be found and used faster. Damageable and smaller components as well as tools are protected.</p> |
| <ul style="list-style-type: none">• Avoid direct contact with the ground and water. Storage in an inclined position is possible. | <p>Components are protected from dirt, dampness and corrosion. Storage bundles are supported on timber pieces.</p> |

Teil E Appendix

VARIOKIT

Cantilever Bracket

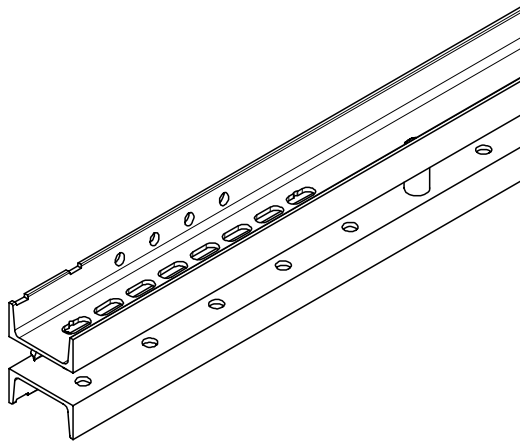
Component Catalogue

VARIOKIT Cantilever Bracket



Item no.	Weight kg	
		Steel Walers Universal SRU U120
103868	18,100	Steel Waler Universal SRU U-120 l = 0.72 m
103871	24,200	Steel Waler Universal SRU U-120 l = 0.97 m
103874	30,900	Steel Waler Universal SRU U-120 l = 1.22 m
103877	38,100	Steel Waler Universal SRU U-120 l = 1.47 m
103886	44,700	Steel Waler Universal SRU U-120 l = 1.72 m
103889	52,000	Steel Waler Universal SRU U-120 l = 1.97 m
103898	58,600	Steel Waler Universal SRU U-120 l = 2.22 m
103892	65,600	Steel Waler Universal SRU U-120 l = 2.47 m
103929	72,000	Steel Waler Universal SRU U-120 l = 2.72 m
103903	81,000	Steel Waler Universal SRU U-120 l = 2.97 m
103906	92,600	Steel Waler Universal SRU U-120 l = 3.47 m
103915	106,000	Steel Waler Universal SRU U-120 l = 3.97 m
103918	119,000	Steel Waler Universal SRU U-120 l = 4.47 m
103922	135,000	Steel Waler Universal SRU U-120 l = 4.97 m
103925	146,000	Steel Waler Universal SRU U-120 l = 5.47 m
103928	159,000	Steel Waler Universal SRU U-120 l = 5.97 m
103943	157,000	Steel Waler Universal SRU U-140 l = 4.97 m

Universal steel waler profile U 120 and U 140 used as waling for girder wall formwork and for diverse special applications. With adjustable spacers.

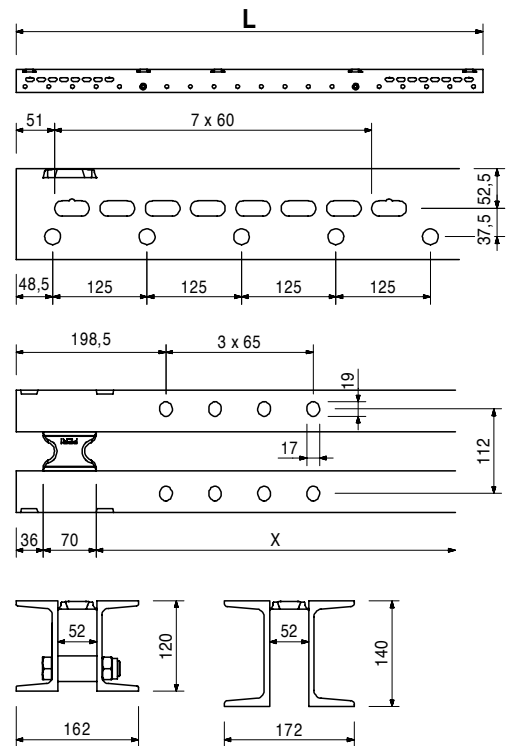


L
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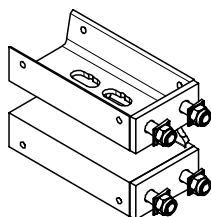
Technical Data

SRU 120 $W_y = 121,4 \text{ cm}^3$, $I_y = 728 \text{ cm}^4$

SRU 140 $W_y = 172,8 \text{ cm}^3$, $I_y = 1210 \text{ cm}^4$



104027	7,610	Extension VARIO 24 U120 For assembly on Steel Waler SRU.
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Complete with

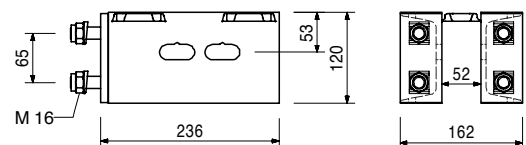
4 pc. 710252 Bolt ISO 4017 M16 x 50-8.8, galv.

4 pc. 104024 Nut ISO 7040 M16-8, galv.

4 pc. 710880 Washer DIN 434 18, galv.

Technical Data

$W_y = 121.4 \text{ cm}^3$, $I_y = 728 \text{ cm}^4$



Item no.	Weight kg		L
		Girders GT 24	
075100	5,300	Girder GT 24 l = 0.90 m	918
075120	7,100	Girder GT 24 l = 1.20 m	1214
075150	8,900	Girder GT 24 l = 1.50 m	1510
075180	10,600	Girder GT 24 l = 1.80 m	1806
075210	12,400	Girder GT 24 l = 2.10 m	2102
075240	14,200	Girder GT 24 l = 2.40 m	2398
075270	15,900	Girder GT 24 l = 2.70 m	2694
075300	17,700	Girder GT 24 l = 3.00 m	2990
075330	19,500	Girder GT 24 l = 3.30 m	3286
075360	21,200	Girder GT 24 l = 3.60 m	3582
075390	23,000	Girder GT 24 l = 3.90 m	3878
075420	24,800	Girder GT 24 l = 4.20 m	4174
075450	26,600	Girder GT 24 l = 4.50 m	4470
075480	28,300	Girder GT 24 l = 4.80 m	4766
075510	30,100	Girder GT 24 l = 5.10 m	5062
075540	31,900	Girder GT 24 l = 5.40 m	5358
075570	33,600	Girder GT 24 l = 5.70 m	5654
075600	35,400	Girder GT 24 l = 6.00 m	5950

Universal formwork girder made of wood.

Note

Construction Approval No .Z-9.1-157.

The common lengths of the GT 24 are colour-coded to allow easy handling.

Technical Data

perm. Q_b = 14.0 kN

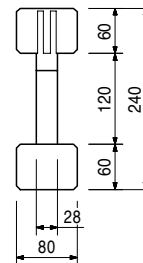
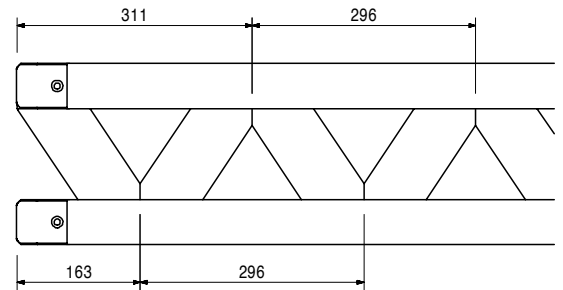
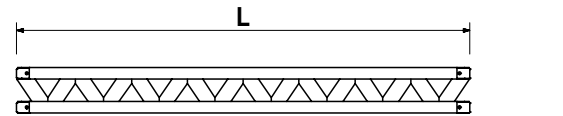
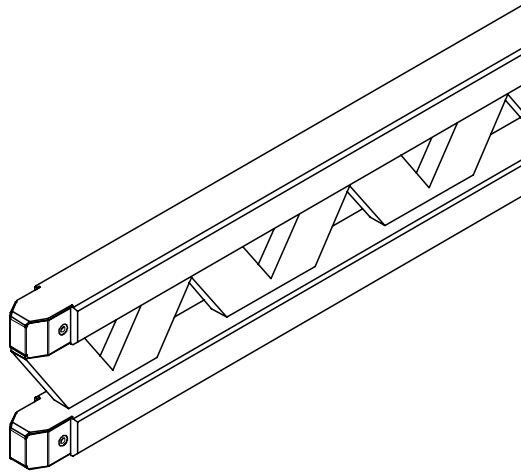
perm. Q_z = 13.0 kN

perm. M = 7.0 kNm

I_y = 8000 cm⁴

Q_b = perm. shear force Compression Strut

Q_z = perm. shear force Tension Strut



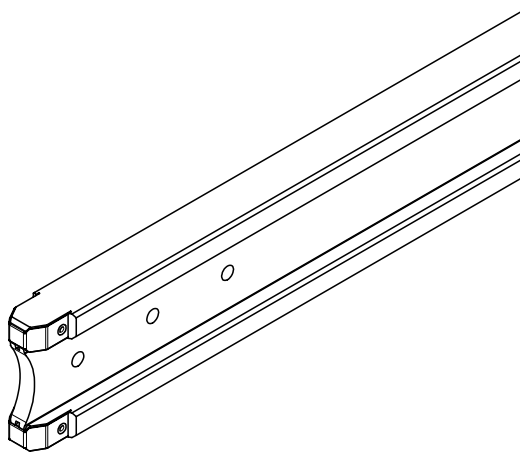
VARIOKIT Cantilever Bracket



Item no.	Weight kg
074990	8,560
074905	12,700
074910	14,460
074890	15,640
074920	17,110
074930	19,470
074940	21,240
074950	23,010
074960	26,550
074970	28,910
074980	34,810

Girders VT 20K
Girder VT 20K l = 1.45 m
Girder VT 20K l = 2.15 m
Girder VT 20K l = 2.45 m
Girder VT 20K l = 2.65 m
Girder VT 20K l = 2.90 m
Girder VT 20K l = 3.30 m
Girder VT 20K l = 3.60 m
Girder VT 20K l = 3.90 m
Girder VT 20K l = 4.50 m
Girder VT 20K l = 4.90 m
Girder VT 20K l = 5.90 m

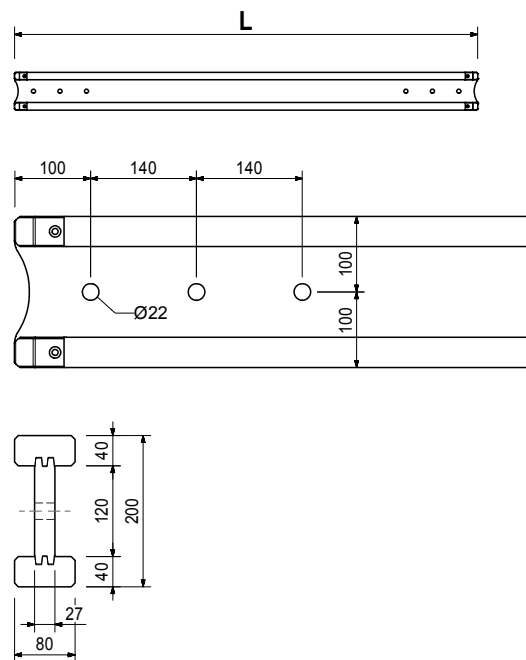
Formwork girder made of wood. Webs are rounded for reducing damage.



L
1450
2150
2450
2650
2900
3300
3600
3900
4500
4900
5900

Note
 Construction Approval No. Z-9.1-216.

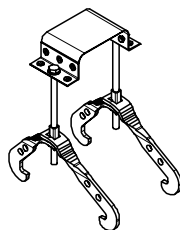
Technical Data
 perm. Q = 11.0 kN
 perm. M = 5.0 kNm
 $I_y = 4290 \text{ cm}^4$



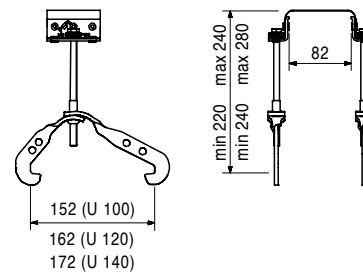
104931	0,865
103845	0,893

Hook Strap Uni HBU
Hook Strap Uni HBU 20-24
Hook Strap Uni HBU 24-28

For fixing GT 24 Girders or VT 20 Girders to the Steel Waler SRZ or SRU, Profiles U100 - U140.



Note
 The girders can be mounted at right-angles or diagonally to the steel walers and also outside of the nodes.

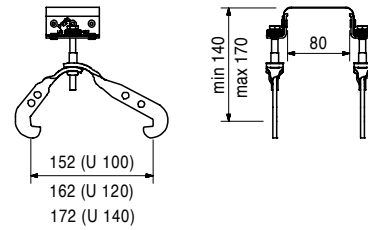
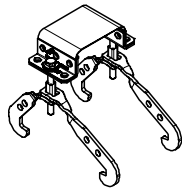


VARIOKIT Cantilever Bracket

Item no.	Weight kg
115544	0,837

Hook Strap Uni HBU 14-17

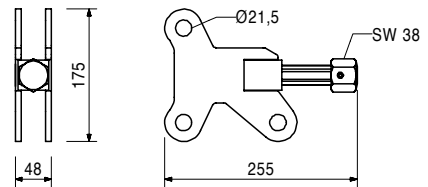
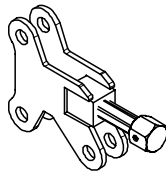
For fixing timbers 80 x 160 mm to the Steel Waler SRZ or SRU, Profiles U100 - U140.



115616	3,210
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Waler Jack with Connector VARIOKIT

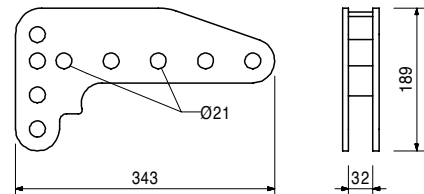
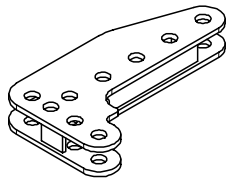
Used as connector part and adjustable compression point.



115623	5,060
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Connector SRU VARIOKIT

For a rigid connection of Steel Waler SRU.



Accessories

104031	0,462
018060	0,030

Bolt Ø 21 x 120

Cotter Pin 4/1, galv.

114328	16,600
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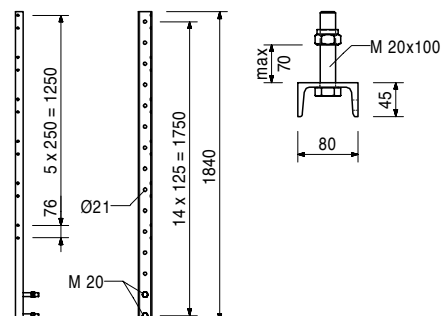
Guardrail Post RCS/SRU 184

For assembly of the guardrail on the Platform Beam RCS/SRU.

Complete with

2 pc. 114727 Bolt ISO 4017 M20 x 100-8.8, galv.

2 pc. 781053 Nut ISO 7042 M20-8, galv.

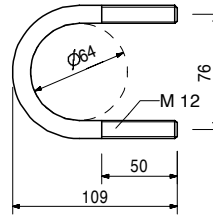
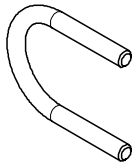


VARIOKIT Cantilever Bracket



Item no.	Weight kg
110296	0,220

Clamp A64 DIN 3570 M12, galv.
For assembling scaffold tubes on Handrail Post RCS.



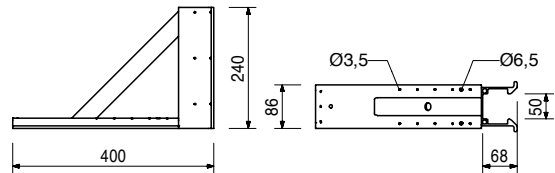
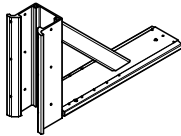
Item no.	Weight kg
710330	0,017

Accessories
Nut ISO 4032 M12-8, galv. (2 pc.)

Item no.	Weight kg
065070	1,670

AW Slab Stopend Angle
For forming stopends for slabs and to form beams up to 40 cm thick.

Note
Permissible load: see PERI Design Tables.

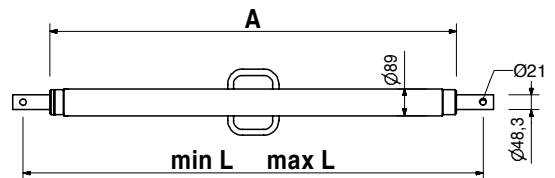
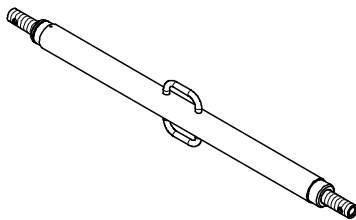


111035	12,000	Heavy Duty Spindles SLS
101773	14,300	Heavy Duty Spindle SLS 40/80
101774	17,900	Heavy Duty Spindle SLS 80/140
101774	17,900	Heavy Duty Spindle SLS 100/180
101776	24,330	Heavy Duty Spindle SLS 140/240
101778	31,800	Heavy Duty Spindle SLS 200/300
101779	37,900	Heavy Duty Spindle SLS 260/360
109726	44,300	Heavy Duty Spindle SLS 320/420
109785	50,500	Heavy Duty Spindle SLS 380/480

Used as adjustable spindle for truss beams made of Steel Walkers SRU and Climbing Rails RCS.

A	min. L	max. L
344	400	800
746	800	1400
946	1000	1800
1346	1400	2400
1944	2000	3000
2544	2600	3600
3144	3200	4200
3744	3800	4800

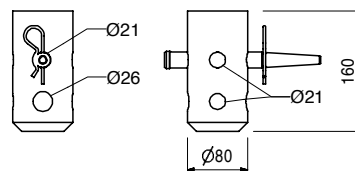
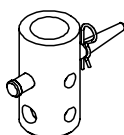
Note
Permissible load see PERI Design Tables.



110477	3,990
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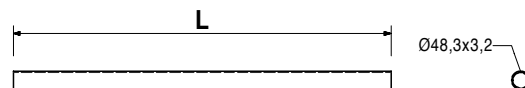
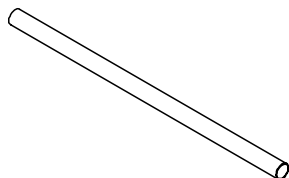
Spindle Adapter SLS/RCS
For connecting the Heavy-Duty Spindle SLS to the Climbing Rail RCS.

Complete with
1 pc. 104031 Bolt $\phi 21 \times 120$
1 pc. 018060 Cotter Pin 4/1, galv.

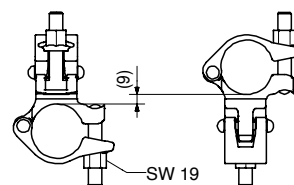
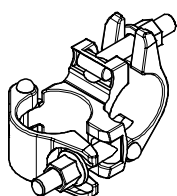


VARIOKIT Cantilever Bracket

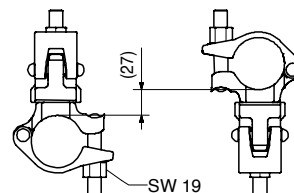
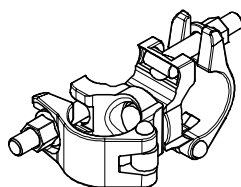
Item no.	Weight kg		L
026415	3,550	Scaff. Tubes Steel	
026417	0,000	Scaff. Tube Steel Ø 48,3 x 3,2, per m	
026411	3,550	Cutting Cost Scaffold Tube	
026412	7,100	Scaff. Tube Steel Ø 48,3 x 3,2, l = 1,0 m	1000
026413	10,650	Scaff. Tube Steel Ø 48,3 x 3,2, l = 2,0 m	2000
026414	14,200	Scaff. Tube Steel Ø 48,3 x 3,2, l = 3,0 m	3000
026419	17,750	Scaff. Tube Steel Ø 48,3 x 3,2, l = 4,0 m	4000
026418	21,600	Scaff. Tube Steel Ø 48,3 x 3,2, l = 5,0 m	5000
		Scaff. Tube Steel Ø 48,3 x 3,2, l = 6,0 m	6000



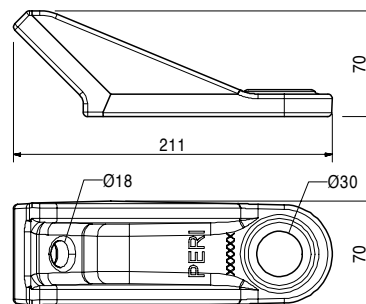
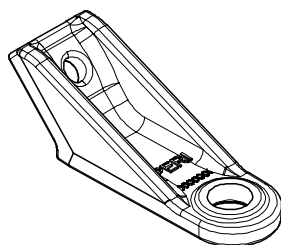
017020	1,120	Standard Coupler NK 48/48, galv. For Scaffold Tubes Ø 48 mm.	Note Wrench size SW 19.
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017010	1,400	Swivel Coupling DK 48/48, galv. For Scaffold Tubes Ø 48 mm.	Note Wrench size SW 19.
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115808	2,380	Anchor Bracket VARIOKIT Lost part for brackets.	
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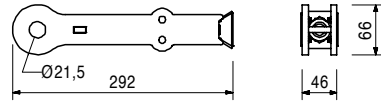
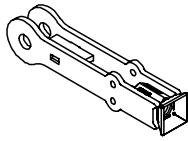


VARIOKIT Cantilever Bracket



Item no.	Weight kg
116532	1,890

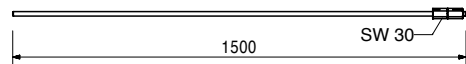
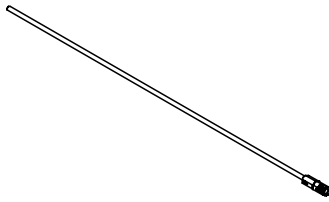
Tie Yoke VARIOKIT Ø 22 / DW15
For assembling in Steel Waler SRU.



110797	2,790
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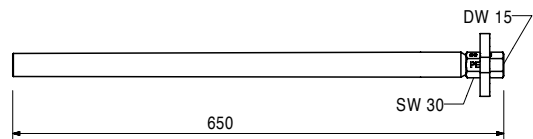
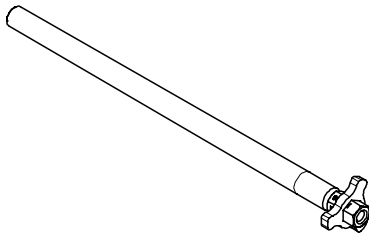
Tension Rod 15 SRU I = 1.50 m
Suitable for Strut SRU I = 1.65 - 2.40 m,
Item no. 110765 and the Spacer Tube DW 15-550
VARIOKIT.

Technical Data
Permissible load 90 kN.



115535	2,740
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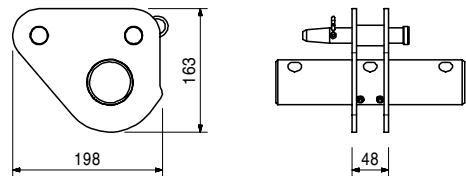
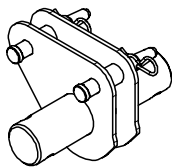
Spacer Tube DW 15-550 VARIOKIT
Conical nut for anchoring to the Anchor Bracket
VARIOKIT.



110756	7,980
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Tie Yoke Head SRU
For mounting in the Steel Waler SRU. Suitable for
Tie Rod DW 15.

Complete with
2 pc. 105400 Bolt Ø 20 x 140, galv.
2 pc. 018060 Cotter Pin 4/1, galv.
2 pc. 770013 Split Pin ISO 8752 8 x 70, galv.



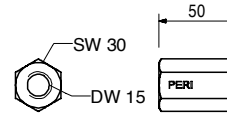
VARIOKIT Cantilever Bracket



Item no.	Weight kg
030550	0,233

Hex. Nut DW 15 SW 30/50, weldable
For anchoring with Tie Rod DW 15 and B 15.

Note
Weldable! Wrench size SW 30.
Technical Data
Permissible load 90 kN.



030030	1,440
030050	0,000

Tie Rod DW 15
Tie Rod DW 15 Spec. Length
Cutting Cost Tie Rod DW 15/ B 15

Note
Non-weldable! Take official approval into consideration!
Technical Data
Permissible load 90 kN.

