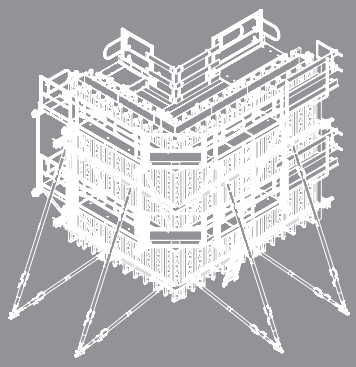
VARIO GT 24
Girder Wall Formwork

Instructions for Assembly and Use – Standard Configuration





Edition 08 | 2016

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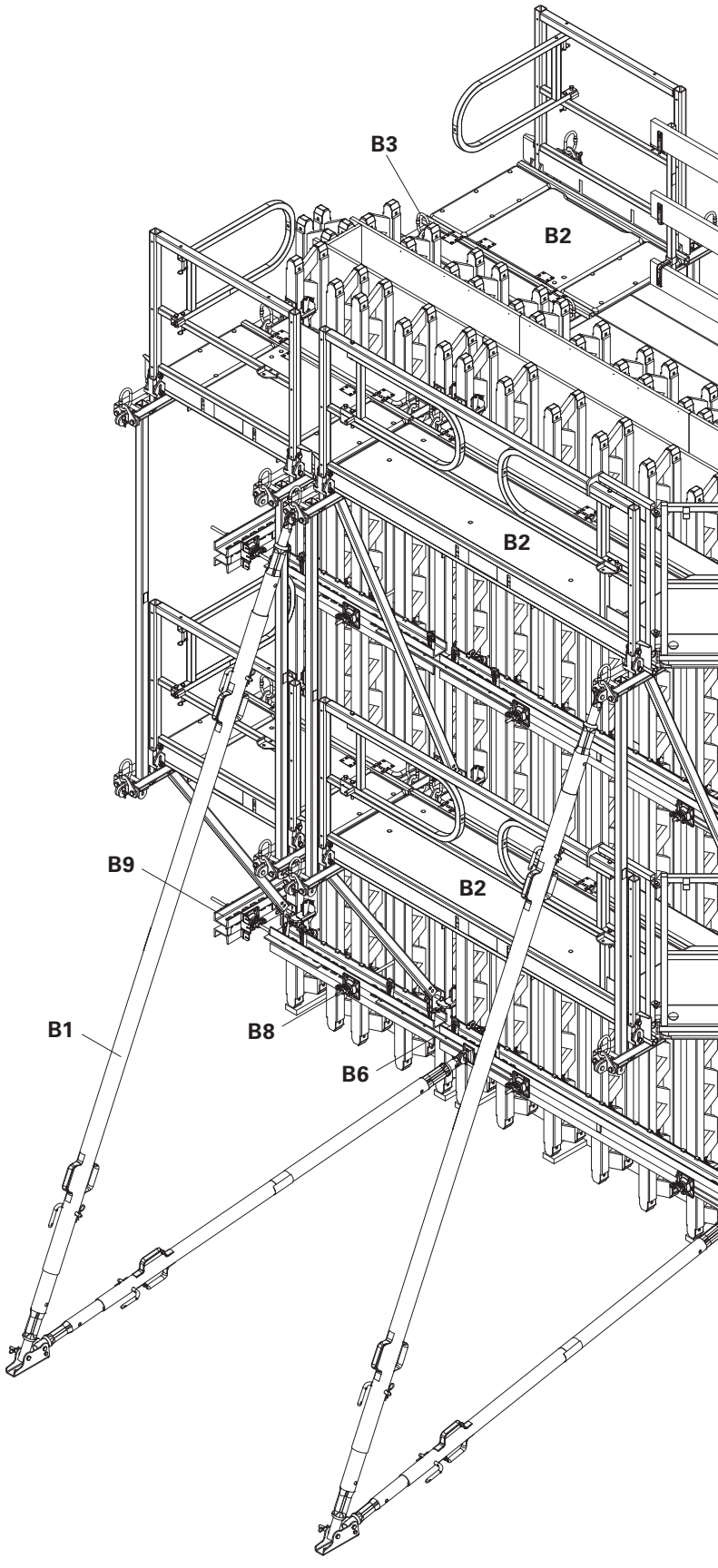
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Overview

Main components

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B1 Push-pull props
B2 Working and concreting scaffolds
B3 Crane Hook
B4 External corners
B5 Internal corners
B6 Panel connections
B7 Length compensations
B8 Anchor
B9 Stopend formwork



Key

Pictogram | Definition

Safety instructions

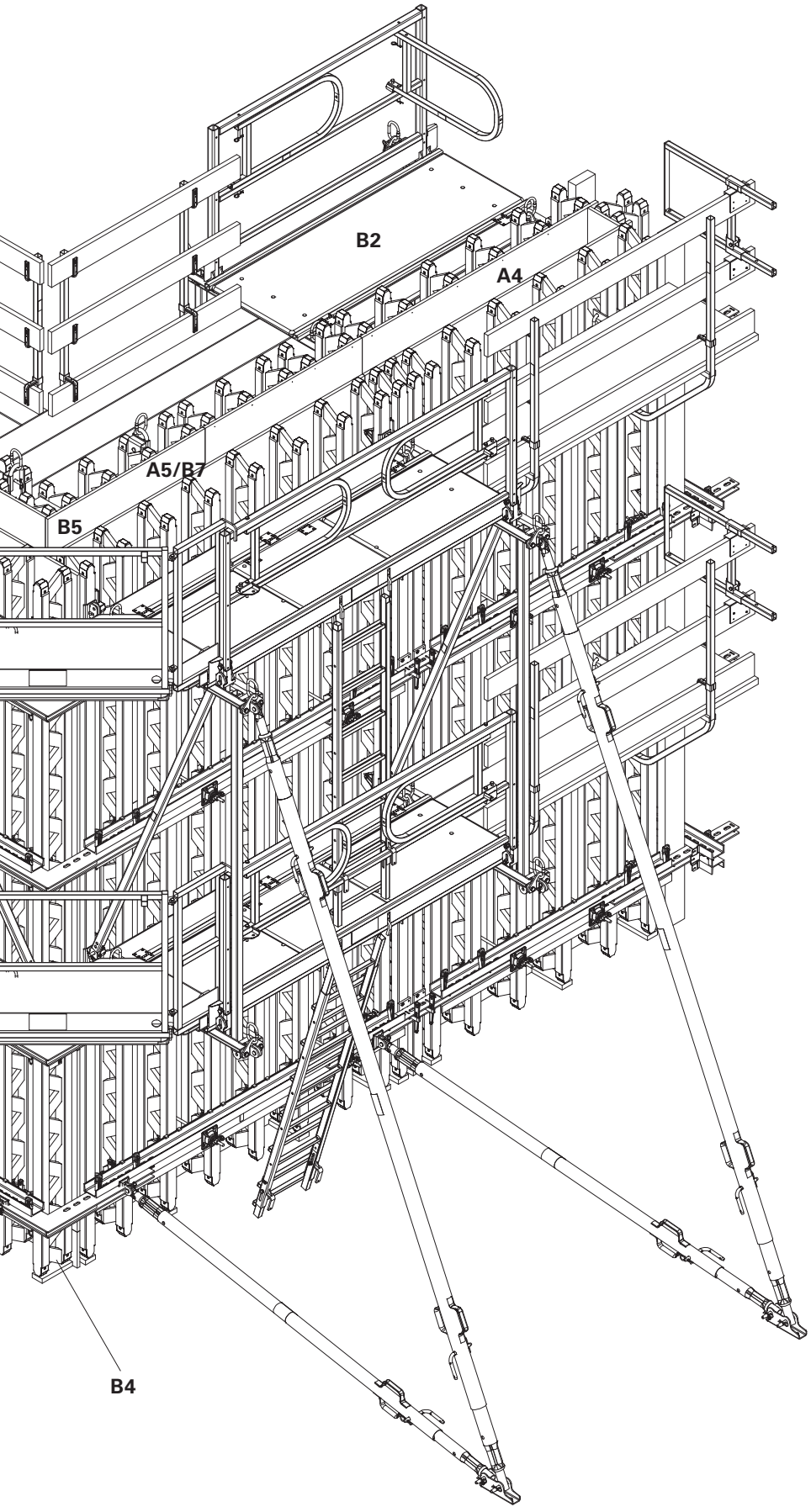
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Visual check

Tip

Load-bearing point

Overview



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

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

Arrows

→ Aktionspfeil einer Handlung

Presentational reference

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

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

Target groups

Contractor
These Instructions for Assembly and Use are designed for contractors who use the formwork systems for
- assembling, modifying and dismantling, or
- use them, e.g. for concreting, or
- for other operations, e.g. carpentry or electrical work.

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

Qualified persons
Formwork systems may only be assembled, modified or dismantled by personnel who are suitably qualified to do so. For the work to be carried out, the qualified persons must have received instructions** which contain at least the following points:
- An explanation of the plan for the assembly, modification or dismantling of the formwork system in an understandable form and language.
- Description of measures in order to safely assemble, modify or dismantle the formwork system.
- Designation of the preventive measures to avoid the risk of persons and objects falling.
- Designation of the safety precautions in the event of changing weather conditions which could adversely affect the safety of the formwork system concerned as well as the personnel.
- Details regarding the permissible loads.
- Description of any other risks that are associated with the assembly, modification or dismantling procedures.

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

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

** Instructions are given by the contractor himself or a competent person selected by him.

Additional technical documentation

- Brochures
  – VARIO GT 24

- Instructions for Use
  – Instructions for Use for Crane Splice 24
  – Instructions for Use for Crane Hook 2 t / GT 24
  – Instructions for Use for Crane Eye 24 right | left
  – Instructions for Use for Pallets and Stacking Devices

- PERI Design Tables – Formwork and Shoring

Introduction

Intended use

PERI products have been designed for exclusive use in the industrial and commercial sectors by competent personnel only.
PERI VARIO GT 24 is a girder formwork system used for forming walls and columns as well as for residential, industrial and civil engineering construction. Through the freely selectable arrangement of the individual element components, the formwork can be adapted to suit a wide range of requirements such as element width and height, fresh concrete pressure and concrete surface.

Features
The element is assembled according to project specifications. The high degree of bending stiffness and bearing capacity of the GT 24 Girder with a weight of 5.9 kg/m results in fewer walers and tie positions. The longitudinally-shaped holes in the steel walers and element couplings result in the possibility of continuously variable tight connections (tension and compression) in all applications.
The standard configuration is comprised of formwork for vertical walls up to 12.00 m high (columns up to 6.00 m high), including push-pull props and safety equipment. Columns or formwork for, e.g. inclined walls, climbing formwork (see PERI climbing systems) and moving the formwork without the use of a crane, is not covered by the intended use provisions and is to undergo a separate check.

Main components
- Plywood
- Lattice Girder GT 24
- Steel Waler VSRZ, SRZ, SRU
- Connecting parts
- Push-pull props with assoociated push-pull prop connections

System dimensions
The GT 24 Girder is available in standard lengths of 0.90 m – 6.00 m in 30 cm increments. Special lengths of up to 17.80 m are also available.

Technical data
- Wall
  - The permissible fresh concrete pressure is dependent on the panel assembly.
  - Static values for the GT 24 Girder and SRZ, SRU Steel Walers: see PERI tables.
- VARIO standard panels
  - Perm. fresh concrete pressure 60 kN/m².
  - The 3 m high panels have been designed to accommodate the hydrostatic fresh concrete pressure.
- Column
  - Permissible fresh concrete pressure 100 kN/m².
  - For continuous column cross-sections from 20 x 20 cm to 80 x 120 cm.

Evenness: Line 7 according to DIN 18202.

Instructions for Use

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

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.

Care 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 care and maintenance costs as low as possible.

Spray the formwork on both sides with concrete release agent before each use; this allows 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-out recesses and mounting parts with double-headed nails; as a result, the nails can be easily removed later, and damage to the formlining is largely avoided.

Close all unused anchor holes with plugs; this eliminates any subsequent cleaning or repair work. Anchor holes accidentally blocked with concrete are freed by means of a steel pin from the formlining side.

When placing bundles of reinforcement bars or other heavy objects on horizontally-stored formwork panels, suitable support, e.g. square timbers, is to be used; as a result, impressions and damage to the formlining are largely avoided.

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 accidently "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 when suspended on a crane.

Cross-system

General
The contractor must ensure that the Instructions for Assembly and Use supplied by PERI are available at all times and are 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. The Instructions for Assembly and Use do not replace the risk assessment!

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

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

Materials and working areas are to be inspected on a regular basis especially before each use and assembly for:
- signs of damage,
- stability and
- functionality.

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

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

Components provided by the contractor must conform with the characteristics required in these Instructions for Assembly and Use as well as all valid construction guidelines and standards. Unless otherwise indicated, this applies in particular to:
- Timber components: Strength Class C24 for Solid Wood according to EN 338.
- Scaffold tubes: galvanised steel tubes with minimum dimensions of Ø 48.3 x 3.2 mm according to EN 12811-1:2003 4.2.1.2.
- Scaffold tube couplings according to EN 74.

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

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

If exceptional occurrences are foreseen that may have an adverse effect regarding the safety of the formwork system, the contractor must immediately
- create another risk assessment, with appropriate measures for ensuring the stability of the formwork system being carried out based on the results,
- and arrange for an extraordinary inspection by a competent person. The aim of this inspection is to identify and rectify any damage in good time in order to guarantee the safe use of the formwork system.

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

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

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

The contractor must ensure that the personal protective equipment required for the assembly, modification or dismantling of the system, e.g.
- safety helmet,
- safety shoes,
- safety gloves,
- safety glasses,

is available and used as intended.

If personal protective equipment (PPE) is required or specified in local regulations, the contractor must determine appropriate load-bearing points on the basis of the risk assessment.
The personal protective equipment against falling to be used is determined by the contractor.

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

Utilisation
Every contractor who uses or allows formwork systems or sections of the formwork to be used, has the responsibility 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.

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

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

If a storm warning is given, additional push-pull props are to be attached or other bracing measures are to be carried out along with implementing the details contained in the PERI design tables.

The contractor must ensure that appropriate fire protection measures are in place!

For heat-producing equipment, such as welding equipment, heaters or lamps, appropriate measures must be taken.

Fire-fighting equipment must be available and emergency exits clearly marked.

Open fires and smoking on the platforms is prohibited!

Storage and transportation

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

Do not drop the components.

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

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

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

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

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

A1 Panel assembly

1. On a sufficiently large and flat assembly area, mount stopping boards for the steel walers and girder spacing battens according to the assembly plans.

With subsequent use of the GB 80 Scaffold Bracket, the girder spacing must be at least 20 cm.
(Fig. A1.01)

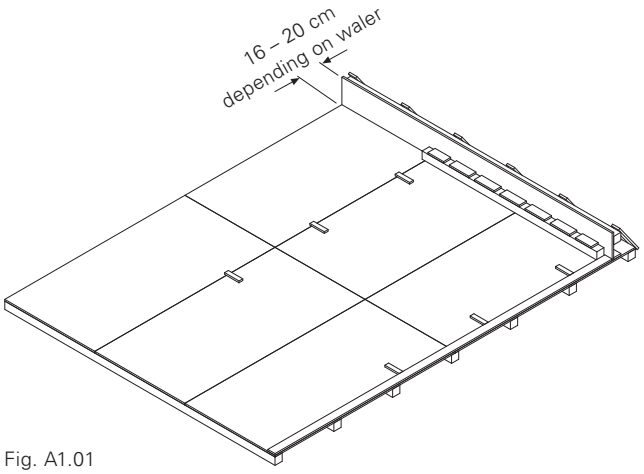


Fig. A1.01

2. Position the steel walers. Make sure they are placed directly against the stopping boards. For steel walers without end plates, the cut outs in the longitudinal holes must point to the concrete side, i. e. upwards.
(Fig. A1.02a)

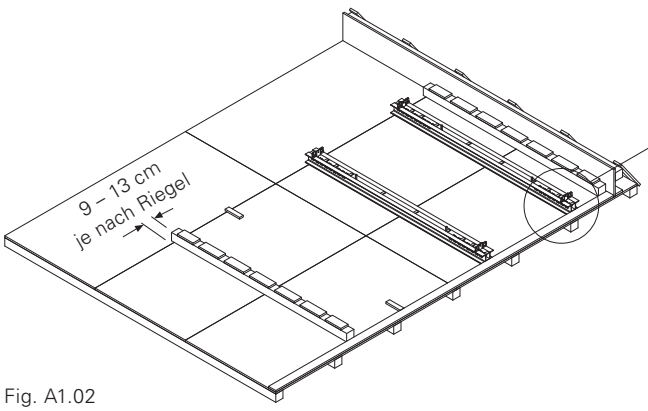


Fig. A1.02

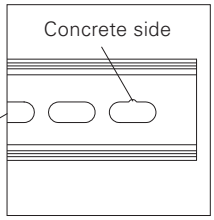


Fig. A1.02a

3. Position edge beam against the steel waler and secure. (Fig. A1.03)
Mounting takes place using Girder Claw and hex. wood screws M8 x 60 (Fig. A1.03a) or Hook Strap HBU (4) and Torx TSS. (Fig. A1.03b)

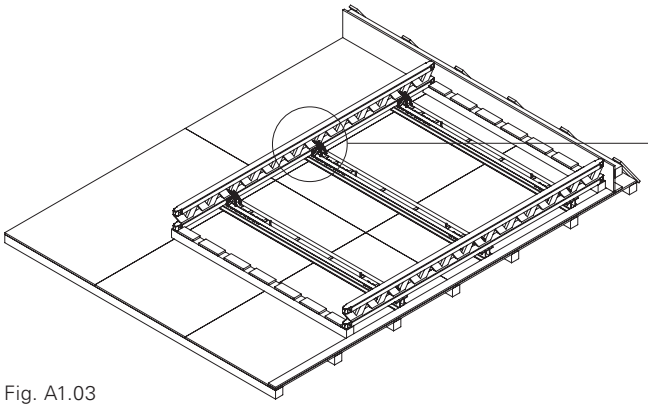


Fig. A1.03

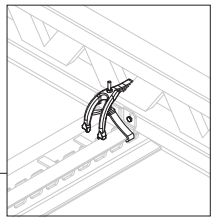


Fig. A1.03a

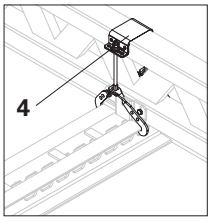


Fig. A1.03b

4. Position intermediate girder and align on spacing battens.
(Fig. A1.04)

For subsequent extensions, ensure stopping board is free of any obstructions.

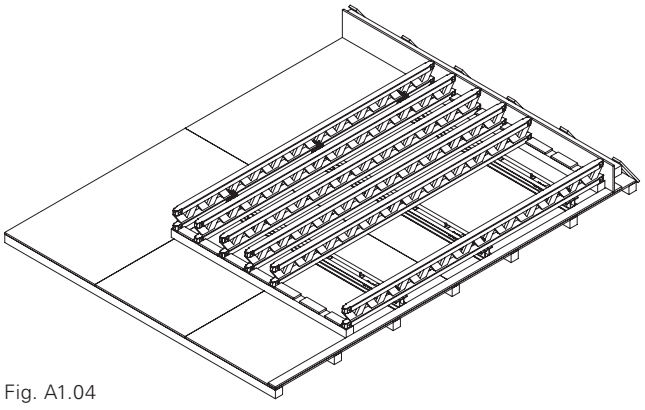


Fig. A1.04

5. Mount hook straps.

Alternate fixing ensures even contact pressureof the girders.
(Fig. A1.05)

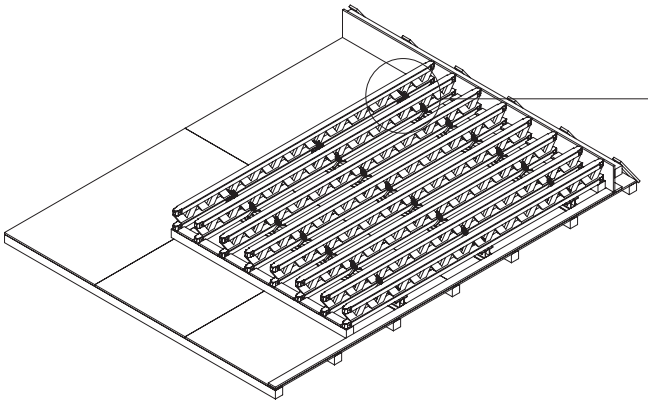


Fig. A1.05

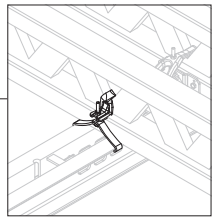


Fig. A1.05a

6. Position the plywood and fix the first sheet with nails. (Fig. A1.06)
Projecting length X: SRZ = 25 mm
SRU = 15 mm
Fix using approx. 10 TSS Torx 6 x 60, or TSS Torx 6 x 60 ZKS per m².

Pay attention to projecting lengths of the formlining at the top and bottom when extending later on.

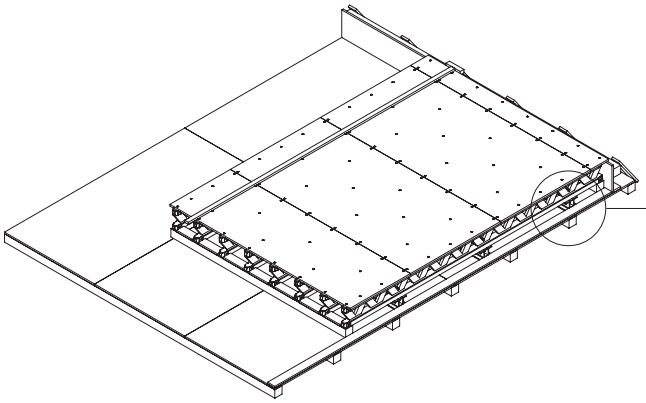


Fig. A1.06

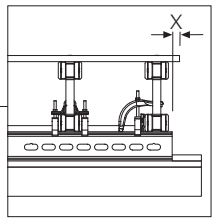


Fig. A1.06a

7. Mark position of tie holes and drill Ø 20 holes.
(Fig. A1.07)

Seal cut edges and dilled holes.
Pay attention to projecting lengths.

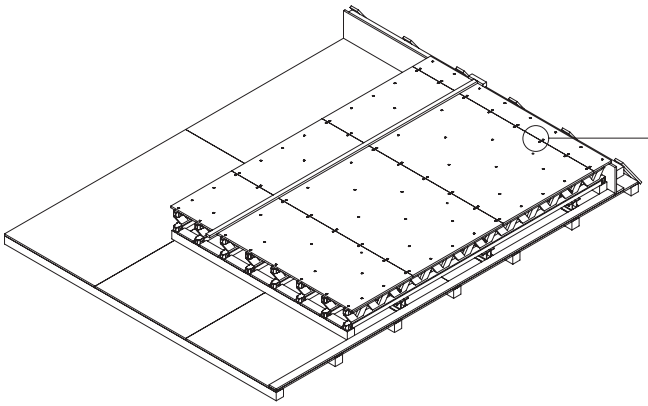


Fig. A1.07

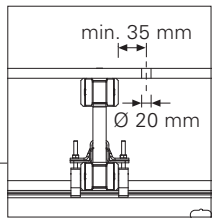


Fig. A1.07a

8. If necessary, mount Crane Splices 24 at the top and rubbing boards at the bottom.
(Fig. A1.08)

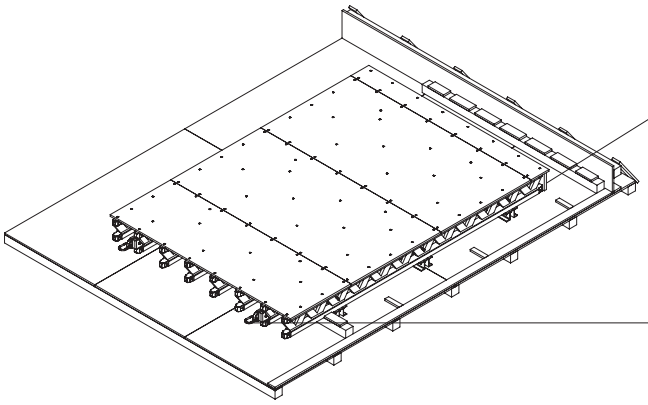


Fig. A1.08

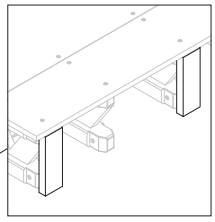


Fig. A1.08a

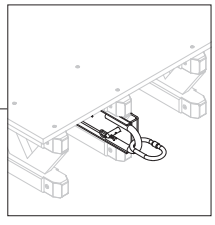


Fig. A1.08b

A2 Assembly of internal corner with VSRZ

1. Lay the Steel Waler VSRZ on the assembly area. Make sure it is placed directly against the stopping boards. The long stub points upwards. (Fig. A2.01)

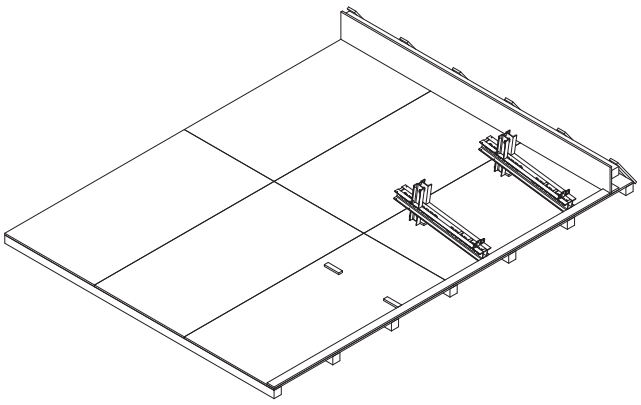


Fig. A2.01

2. Position the GT 24 Girder, use screw clamps to hold in position and fix by means of HB Hook Straps. (Fig. A2.02)

Tighten hook straps alternately with an impact screwdriver.

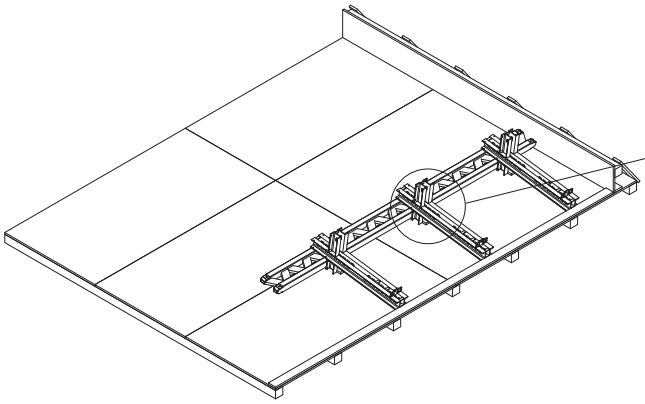


Fig. A2.02

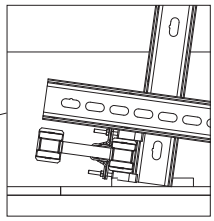


Fig. A2.02a

3. Position edge beam against the steel waler and secure. (Fig. A2.03)
Fastening takes place with:
Girder Claw and hex. wood screws M8 x 60 (Fig. A2.03a)
or
Hook Strap HBU (4) and Torx TSS and hex. wood screws M8 x 60. Position of the hex. wood screws M8 x 60: see Section A5. (Fig. A2.03b)

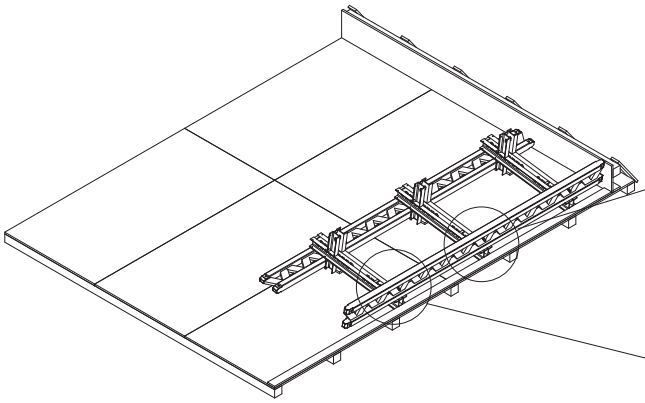


Abb. A2.03

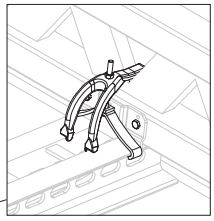


Fig. A2.03a

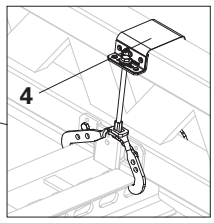


Fig. A2.03b

4. Position corner girder, use screw clamps to hold in position and fix to the stub by means of hex. wood screws M8 x 60. (Fig. A2.04a)

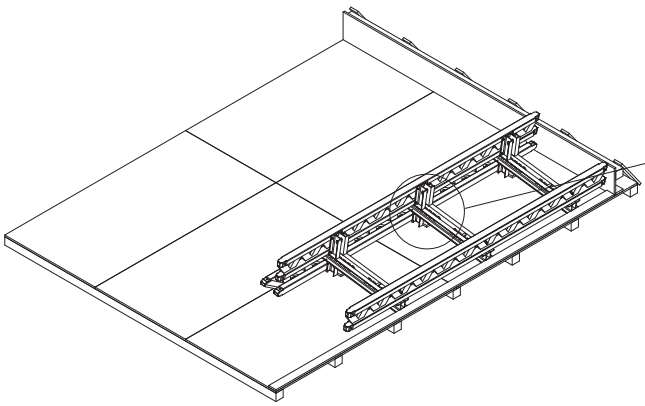


Fig. A2.04

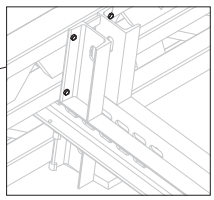


Fig. A2.04a

Assembly of internal corner with VSRZ

5. Position additinal girders, use screw clamps to hold in position and secure by means of Fix Straps U100 – U120. Install spacers between the pairs of girders. (Fig. A2.05)

Check the angle on each waler.

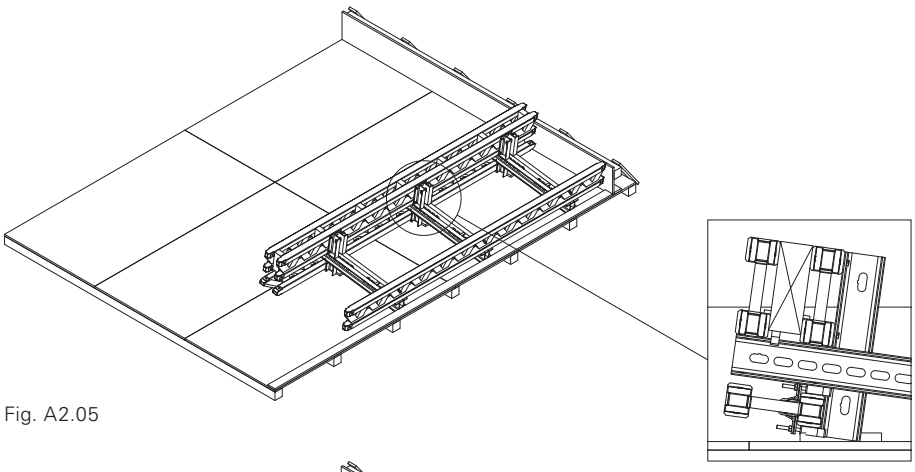


Fig. A2.05

Fig. A2.05a

6. Place and align intermediate girder and secure using the HB Hook Straps. (Fig. A2.06)

For later extensions, ensure stopping board is free of any obstructions.

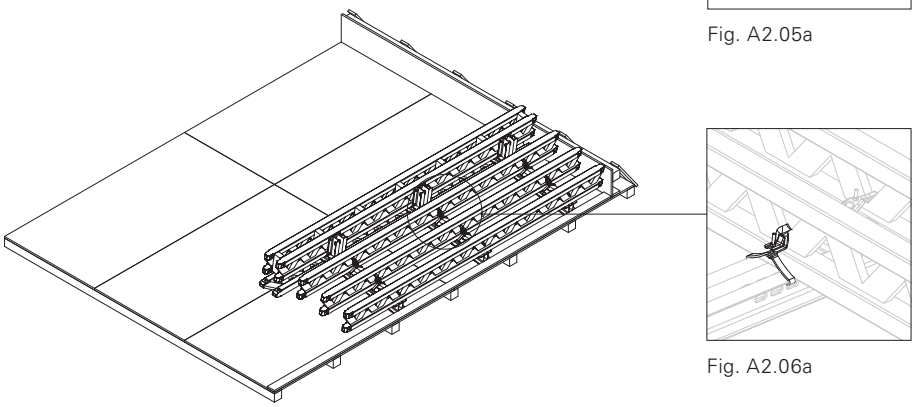


Fig. A2.06

Fig. A2.06a

7. Position formlining and then secure. Fix using approx. 10 TSS Torx 6 x 60, or TSS Torx 6 x 60 ZKS per m². Drill holes with a Ø 20 mm bit. (Fig. A2.07)

Seal cut edges and drilled holes. Pay attention to projecting lengths.

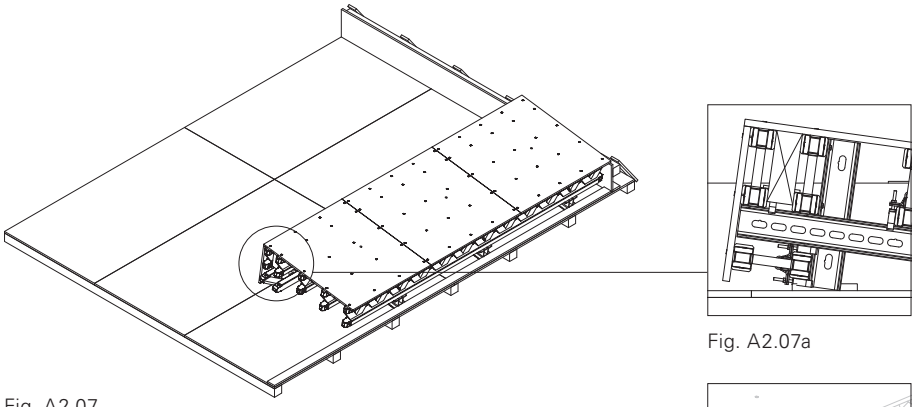


Fig. A2.07

Fig. A2.07a

8. If necessary, mount Crane Splices 24 at the top (Fig. A2.08a) and rubbing boards at the bottom. (Fig. A2.08b)

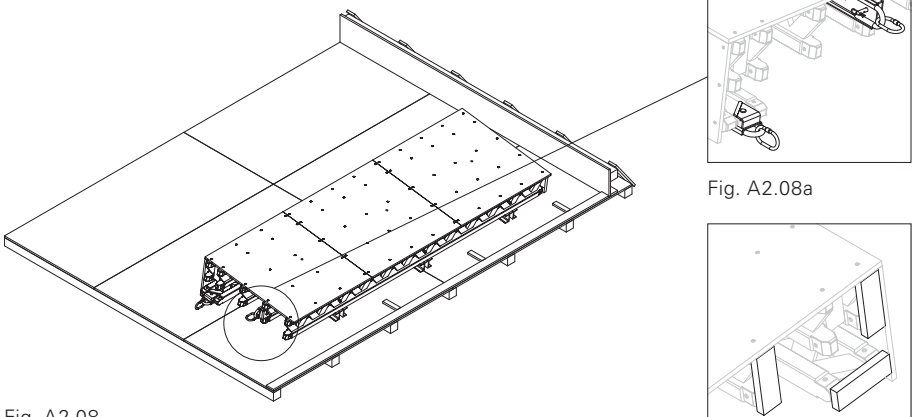


Fig. A2.08

Fig. A2.08a

Fig. A2.08b

A3 Assembly of internal corner with IRZ

1. Lay Internal Corner Waler IRZ on the assembly area. Make sure it is placed directly against the stopping boards. (Fig. A3.01)

The spindle must be fully spindled out so that a right-angle is created.

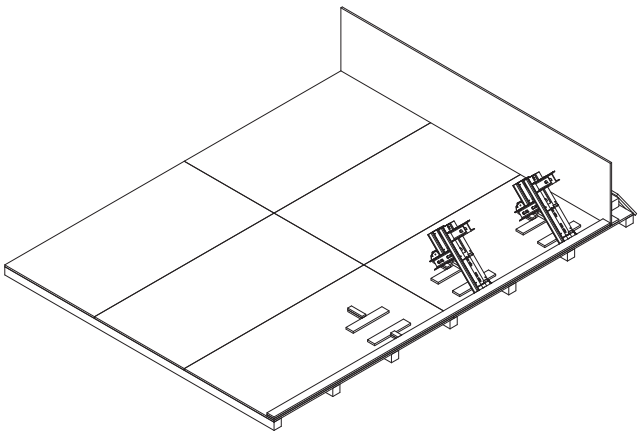


Fig. A3.01

2. Position the first girder, hold in position by means of screw clamps and secure on the fixing plate using hex. wood screws M8 x 60. (Fig. A3.02)

Important: pay attention to the order.

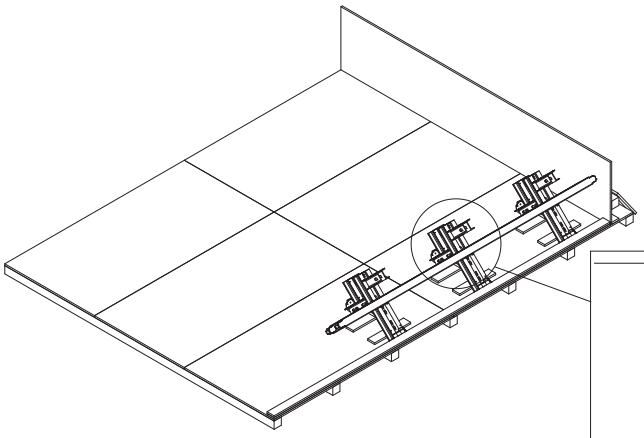


Fig. A3.02

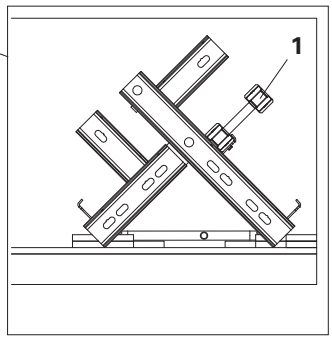


Fig. A3.02a

3. Mount girders 2 – 5 in the same way. Fix girders 3 + 5 diagonally to the stubs. (Fig. A3.03)

Check angle on each waler and use filler plates for the girder on the chord in cases of tolerance variations.

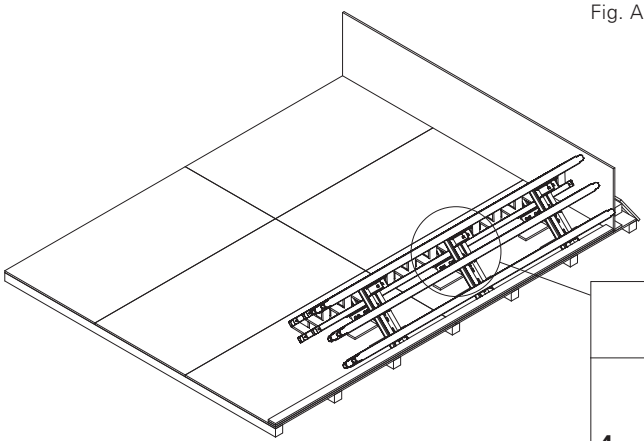


Fig. A3.03

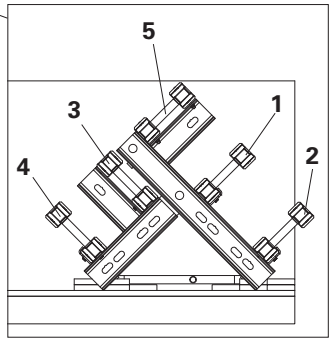


Abb. A3.03a

A3 Assembly of internal corner with IRZ

4. Position the plywood and fix the first sheet with nails. The formlining is flush with front edge of fifth girder. Fix using approx. 10 TSS Torx 6 x 60, or TSS Torx 6 x 60 ZKS per m². (Fig. A3.04)

Seal cut edges of the sheets.

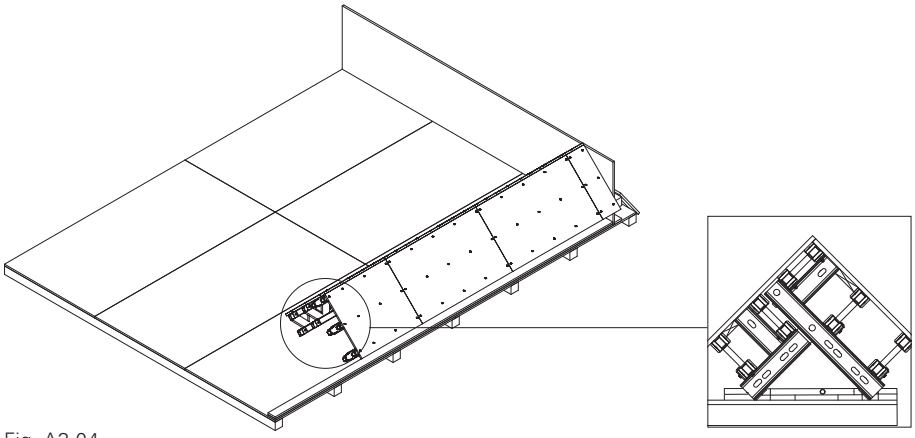


Fig. A3.04

Fig. A3.04a

5. Mount spacing timber as additional bracing to each waler and on both sides. (Fig. A3.05)

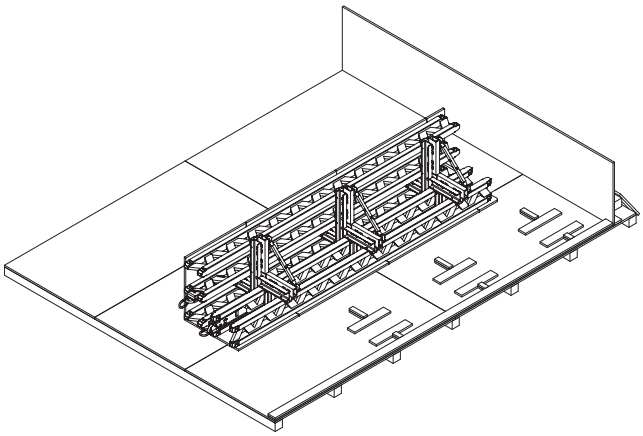
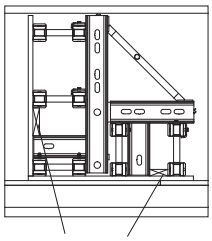


Fig. A3.05

Fig. A3.05a



Spacing timber
30 x 126 x 250 mm

6. If necessary, mount Crane Splices 24 at the top (Fig. A3.06b) and rubbing boards at the bottom. (Fig. A3.06a)

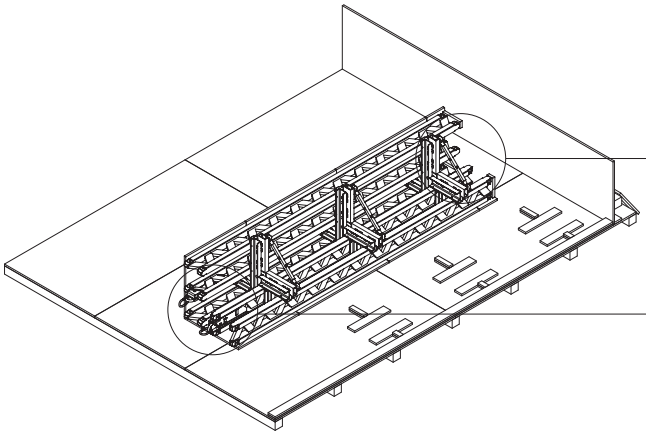


Fig. A3.06

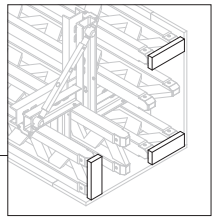


Fig. A3.06a

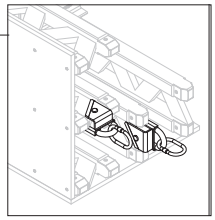


Fig. A3.06b

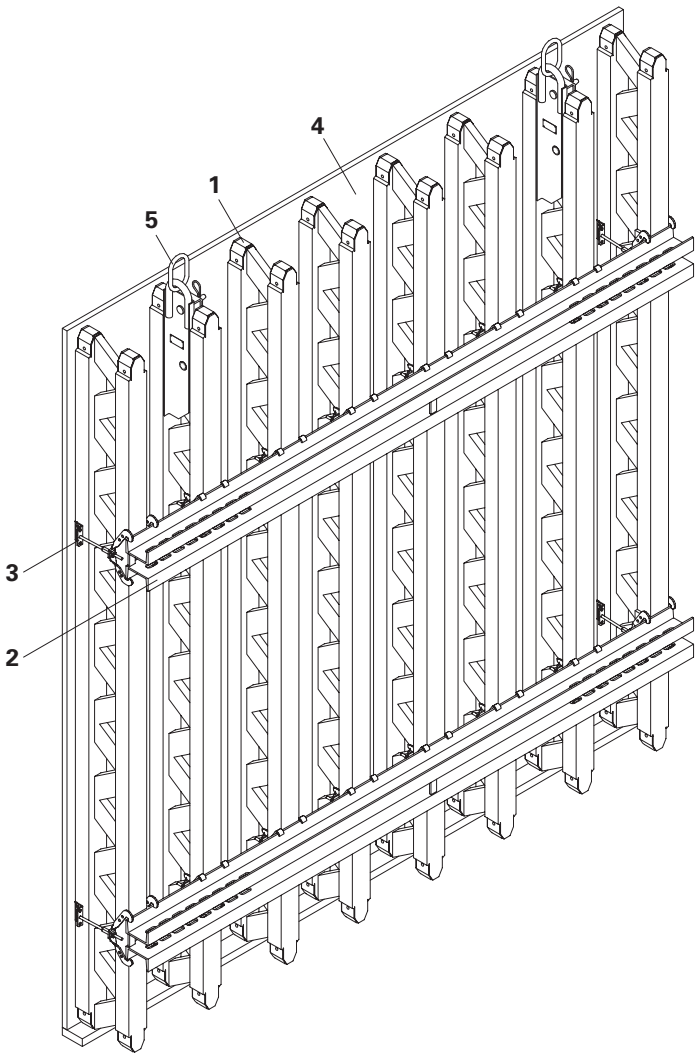
A4 VARIO Panel

Panel width
The panel width is determined by the length of the SRZ or SRU Steel Walers.

Panel height
The panel height is determined by the length of the GT 24 Girder.
The GT 24 Girder is available in lengths ranging from 0.90 m to 6.0 m. Special lengths of up to 17.80 m are also available.

Fresh concrete pressure
The fresh concrete pressure is determined by the planning engineer. The panels must be installed according to the specifications.

Basic element VARIO GT 24
1 Lattice Girder GT 24
2 Steel Waler SRZ/SRU
3 Hook Strap HB/HBU
4 Plywood
5 Crane Splice 24



A5 Hook Strap HBU, HBUD, HB 24

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

- For 1 x Girder GT 24, VT 20.
- For timbers.
- For Steel Walers SRZ and SRU U100 – U140.
- Can also be used outside of the node point.

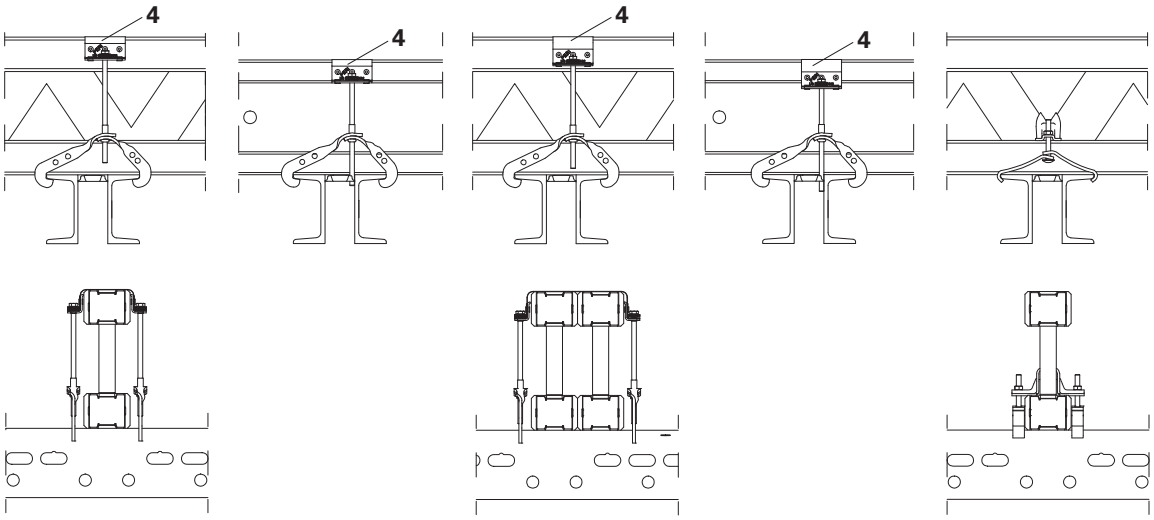
Universal Hook Strap HBUD 20-24
Universal Hook Strap HBUD 24-28

- For 2 x Girder GT 24, VT 20.
- For timbers.
- For Steel Walers SRZ and SRU U100 – U140.
- Can also be used outside of the node point.

Hook Strap HB 24-100/120
Hook Strap HB 24-140/160

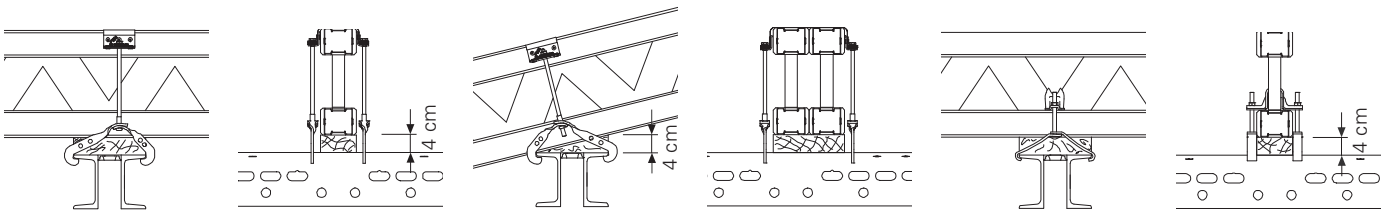
- For 1 x Girder GT 24.
- For Steel Walers SRZ and SRU Profile U100 – U140 or U140 – U160.
- Only to be used on node points.

Standard application



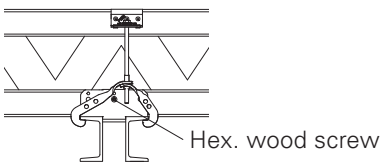
With filler
Up to 4 cm is possible.

Screw length according to the height of the filler up to maximum M8 x 160.

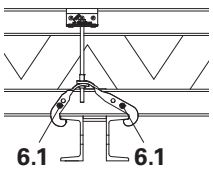


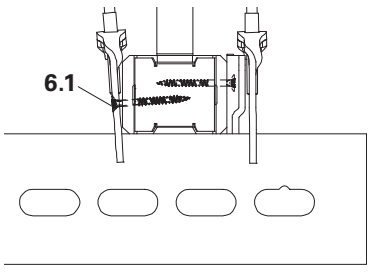
For edge beam
With Steel Waler SRZ with end plate and Hook Strap HBU and HBUD respectively.

Inner side
Secure girder with 1 hex. wood screw 8 x 60.



Outer side
Secure girder with 2 x TSS Torx 6 x 60 (6.1).

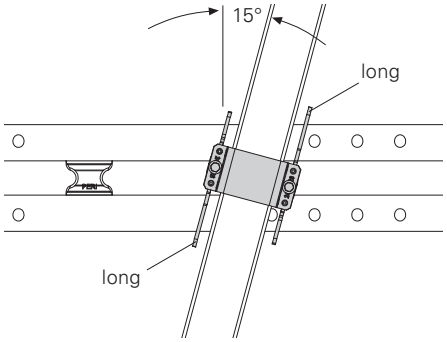


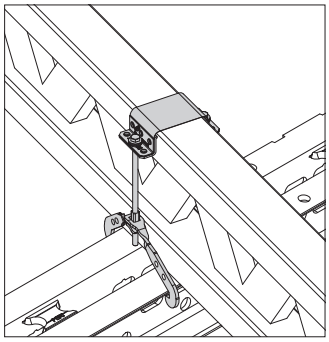


A5 Hook Straps HBU, HBUD, HB 24

Girder positioned at an angle to the steel waler
Up to 15° possible with the Hook Strap HBU.

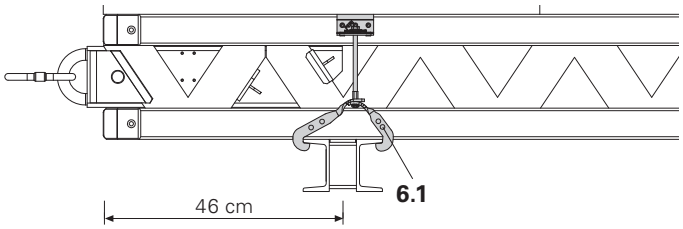
In addition. the long hooks (short hooks) have to point in opposite directions.

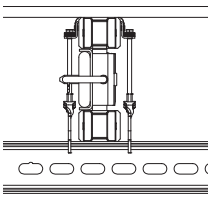




For use with Crane Splice 24
With Hook Strap HBU.

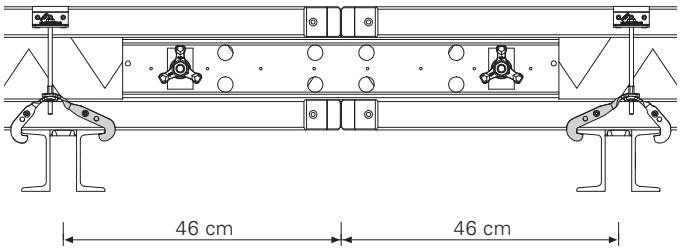
Secure on both sides with 2 x TSS Torx 6 x 60 (6.1).

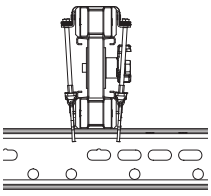




For use with Extension Splice 24-2
With Hook Strap HBU.

The longer stub must point to the extension splice.





Standard application

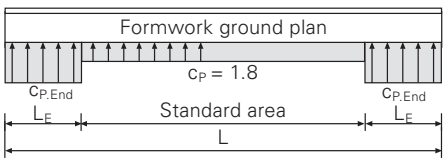
		Formwork height h [m] System 1						Formwork height h [m] System 2			
		3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
Permissible width of influence [m]	**EB_{ref}**	**5.20**	**4.04**	**2.74**	**2.26**	**2.05**	**1.74**	**2.45**	**2.04**	**1.80**	**1.50**
Actual push-pull prop load [kN]	F_{RS1}	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.0	11.5	11.5
	F_{RS2}							10.9	11.5	11.2	10.5
Actual kicker load [kN]	F_{AV}	2.7	2.9	2.8	2.7	3.2	3.5	4.2	3.6	3.4	3.1
Base plate Resulting force [kN]	①	13.7	13.7	13.5	13.4	13.7	13.9	11.5	11.0	11.5	11.5
	②							14.2	14.3	13.7	12.8
Base plate Resulting angle of attack [°]	①	52.4	51.1	51.1	51.1	49.4	48.2	60.0	60.0	60.0	60.0
	②							47.9	49.8	49.9	49.8
Lifting force V_{Wind} [kN/m]		2.1	2.6	3.8	4.6	5.1	5.9	8.4	10.0	11.4	13.2
x = Distance of base plate from rear edge of formwork [m]	x_1	1.2	1.6	2.0	2.4	3.0	3.6	4.2	4.7	5.1	5.5
	x_2							2.6	2.6	2.8	3.0
y = Top connection point from top of formwork [m]	y_1	1.0	1.2	1.5	1.8	1.8	1.8	1.5	1.8	2.1	2.4
	y_2							4.5	5.5	6.2	6.9
$q(z=h) = q_h$ [kN/m²]		0.50	0.50	0.58	0.58	0.58	0.61	0.64	0.66	0.69	0.71

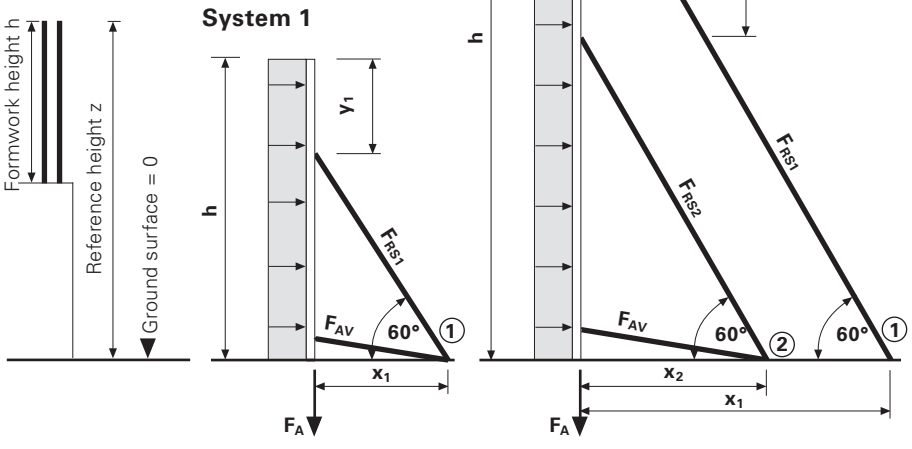
Assumptions:
- Wind loads according to DIN EN 1991-1-4 w = q(z) x cp x χ [kN/m²]
- Wind Zone 2. Terrain Category III
- Applied pressure coefficient c_p = 1.8 (see graphic. below)
- Formwork in vertical position on ground
- Service life factor χ = 0.6
- q(z) = peak velocity pressure
- Inclination of the push-pull prop to the horizontal 60°
- Values are characteristic values

Note:
Anti-lift off protection is provided if the lifting force $F_A = 1.5 \times V_{Wind} - 0.9 \times G \times h > 0$
G = surface area weight of the formwork including platforms.

In the end area L_E. the following c_p values or wind loads are assumed:
L/h ≤ 3: $c_{p.\,End}$ = 2.3*
L/h = 5: $c_{p.\,End}$ = 2.9*
L/h ≥ 10: $c_{p.\,End}$ = 3.4*
L_E = length of end area (0.3 x h)
h = formwork height
L = formwork length

*intermediate values are interpolated





B1 Push-pull props and kickers

Push-pull props

Push-pull props and kicker braces are fixed to the girder with the Girder Headpiece (14) or with the Wedge Headpiece (15) to the steel waler.
(Fig. B1.01)

Assembly of Girder Headpiece 24
For Lattice Girder GT 24:
1. Loosen all wingnuts (14.1).
2. Push plate (14.2) through the lattice girder.
3. Clamp plate to lattice girder using holder (14.3).
4. Tighten wingnuts.

(Fig. B1.01b)

Assembly of Wedge Headpiece
For U100, U120 and U140 Profiles:
1. Push piece with wedge opening through the steel waler profile.
2. Choose opening according to the profile.
3. Insert K-wedge (13) and hammer in tightly.

(Fig. B1.01c)

Assembly of push-pull props and kickers
Fix push-pull props and kickers with bolts and cotter pins (14.4, 15.1) in the same way to the base plate (16).
(Fig. B1.01a)

Permissible push-pull prop spacing: see Table.

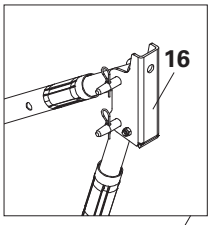
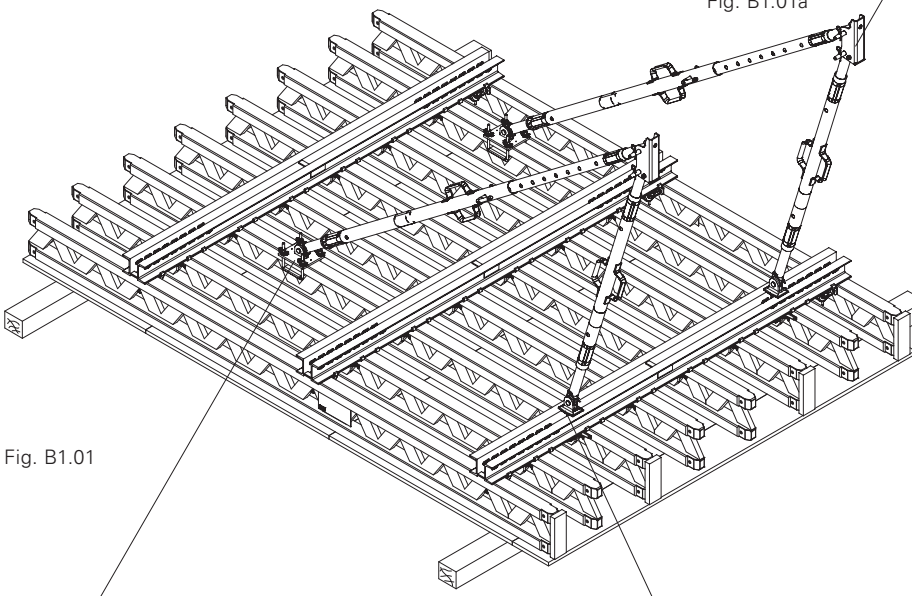


Fig. B1.01a


Fig. B1.01

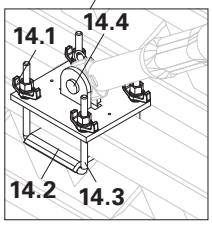


Fig. B1.01b

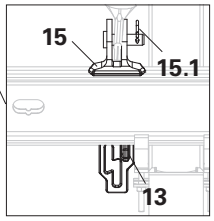


Fig. B1.01c

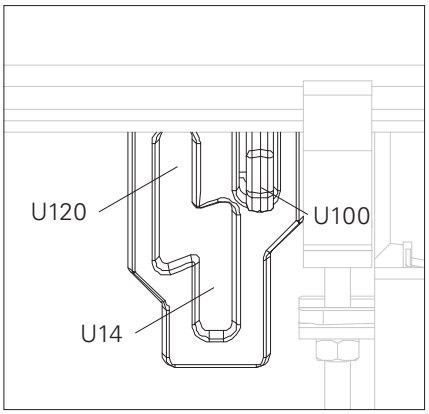


Fig. B1.01d

Scaffold Bracket GB 80, EGB 80L or EGB 80R

- **Permissible load: 150 kg/m².**
- **Maximum width of influence: 1.25 m.**
- **Secure planking.**
- **Decking components and guardrails must be mounted securely in position at all times.**

A working and concreting scaffold consists of:
- Scaffold Bracket GB 80 (20)
- Corner Scaffold Bracket EGB 80L, R (20a)
- Planking (21)
- Guardrails including toe board (22)
- Lateral guardrails (23)

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

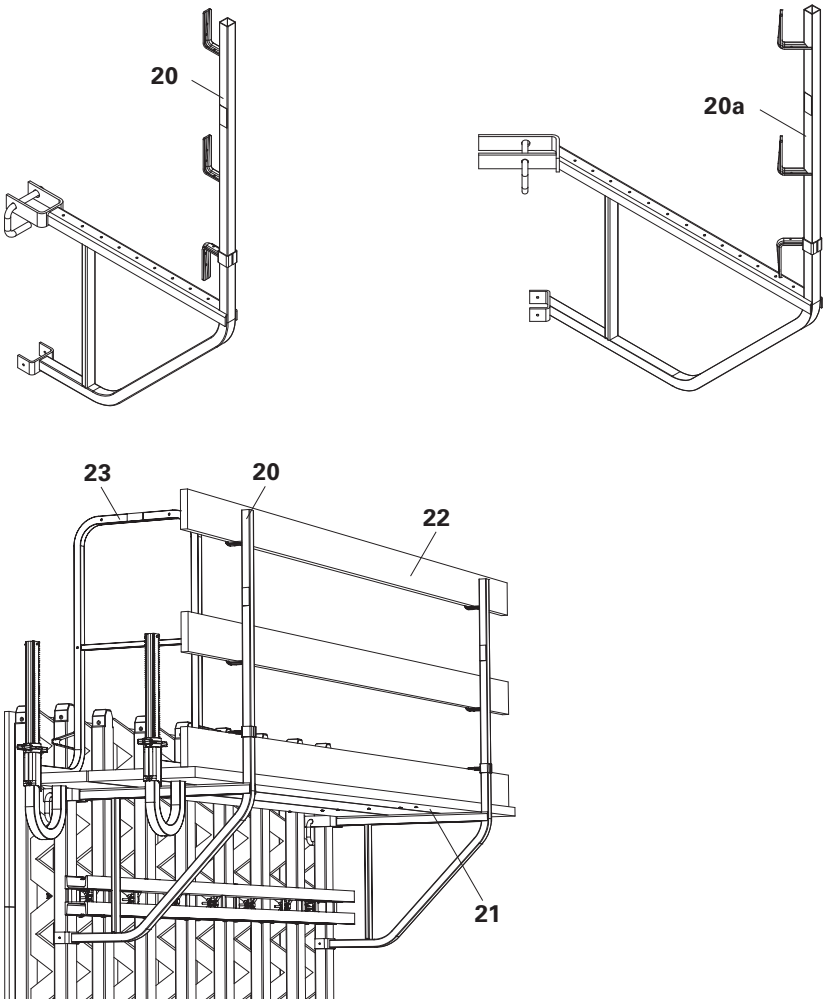


Abb. B2.01a

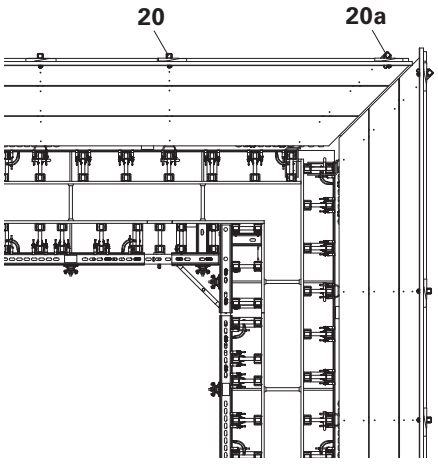


Fig. B2.01b

Assembly on horizontally-positioned panel

1. Remove locking pin (20.1) and place scaffold bracket with top connecting claw (20.2) on the girder.
2. Secure locking pin and secure bottom connecting claw (20.3) with nails. (Fig. B2.02a)
3. Fix planking (21) across complete bracket width from below using Torx 6 x 40 (21.1).
4. Mount and secure guardrails (22) including toe board and, if necessary, lateral guardrails. (Fig. B2.02)

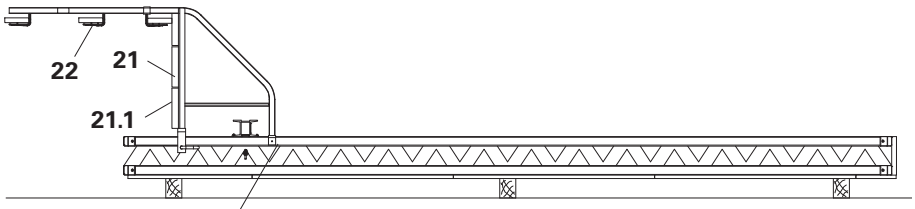


Fig. B2.02

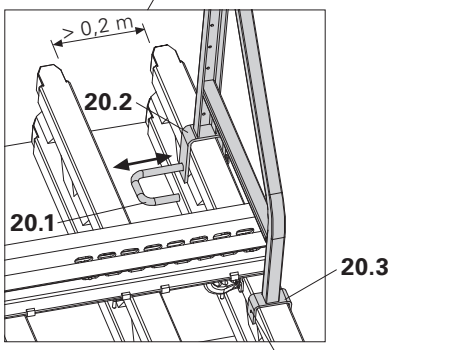


Fig. B2.02a

Drilled hole Ø 7

When erecting the panel, make sure that the guardrails are not damaged by the lifting gear.
(Fig. B2.03)

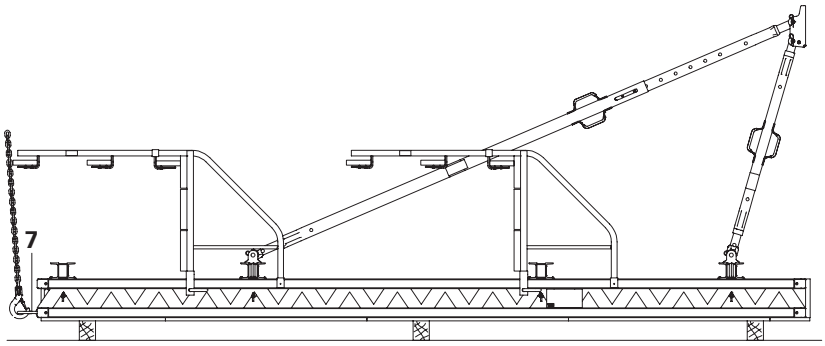


Fig. B2.03

Oppositely-arranged guardrails

Consisting of:
– Guardrail Post Holder VARIO
– Guardrail Post HSGP-2
– Guardrails

Technical data
Max. width of influence: 2.00 m.

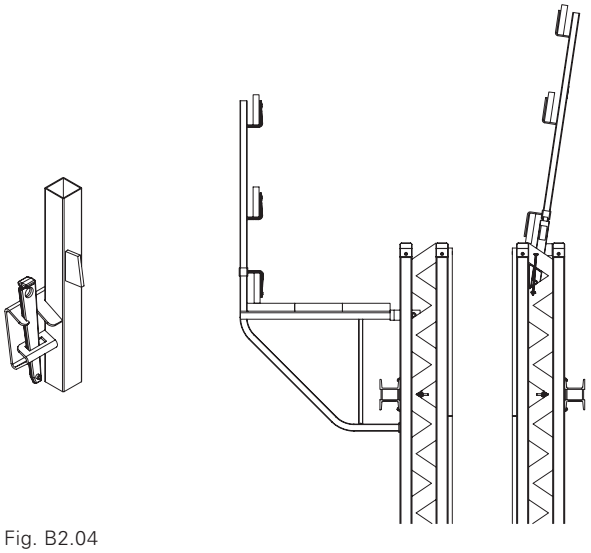


Fig. B2.04

VARIO Platform Connector

1. Centre the wedge (31.1) and pull clamps apart (31.2).
2. Push clamps from the inside over the girder chord.
   (Fig. B2.05a)
3. Secure wedge.
   (Fig. B2.05b)
4. Mount additional platform connectors.
   (Fig. B2.05c)

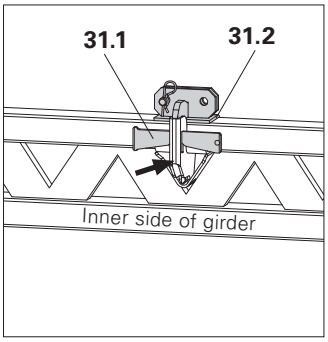


Fig. B2.05a

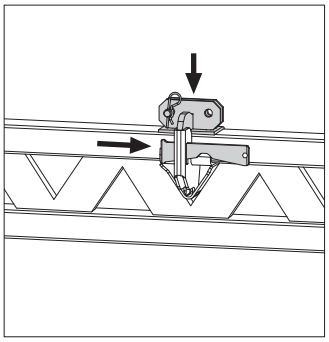


Fig. B2.05b

Clamps must lie against the girder.
Mount platform connectors from the top downwards.
Mounted platforms remain attached to the panel:
– For horizontal transport on the construction site.
– Folded together for transport from one construction site to the next.

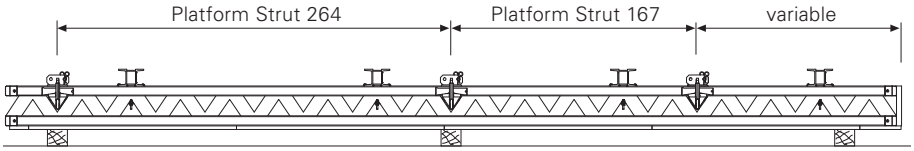


Fig. B2.05c

VARIO Platform System

Permissible load: 150 kg/m².

The VARIO Platform (30) is a pre-assembled and foldable unit with guardrails (30.1) and End Handrail Frame (30.2). It has integrated push-pull prop connections and crane eyes. It can be equipped with or without an access hatch and is mounted to the element by means of platform connectors (31).
(Fig. B2.06)

Assembly on a horizontally-positioned panel
With more working scaffold levels, always begin with the lowest platform!

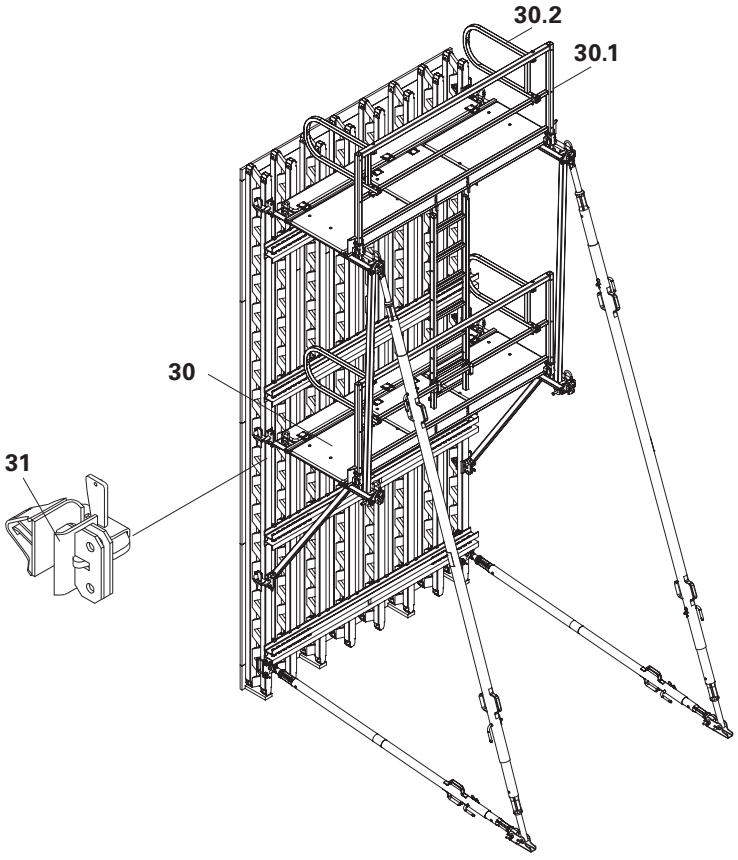


Fig. B2.06

Assembly of the bottom platform

1. Attach platform (30) to lifting gear and transport to assembly level.
2. Release pins (30.3).
3. Insert splice (30.4) into the platform connector (31) and secure in the lowest drilled hole using pins (30.3). (Fig. B2.07 + B2.07a)
4. Attach Platform Struts 167/264 (32/33) to the platform beam.
5. Insert splice in top drilled hole of the platform connector. (Fig. B2.08 + B2.08a + B2.08b)
6. Fold out guardrail (30.1) and lock pawl (30.5) in position.
7. Fold out end handrail frame (30.2).
8. Attach push-pull props and kickers. (Fig. B2.09 + B2.09a)
9. Re-hang lifting gear in the front crane eyes (30.6). (Fig. B2.09b)

Cannot be used with panel height h = 4.20 m.

Visual check of pawl.
Access hatch must remain closed.

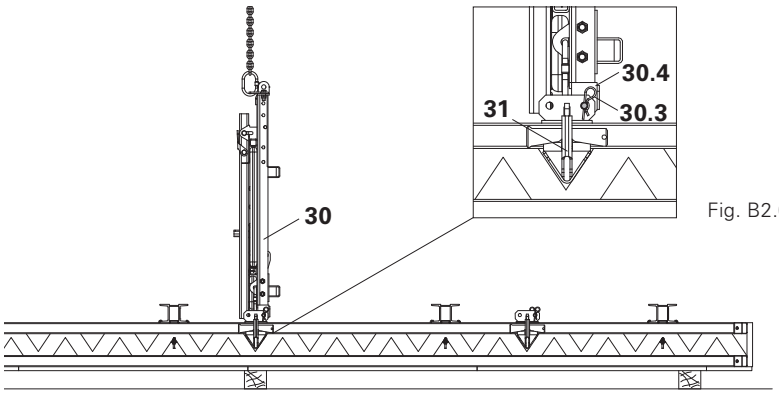


Fig. B2.07a

Fig. B2.07

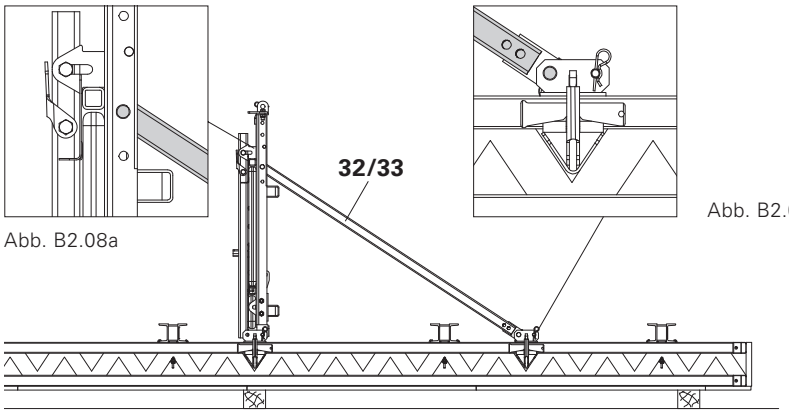


Abb. B2.08a

Abb. B2.08b

Fig. B2.08

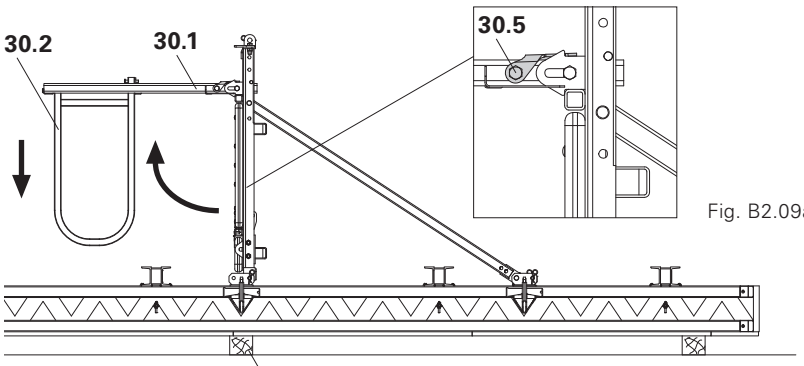


Fig. B2.09a

Fig. B2.09

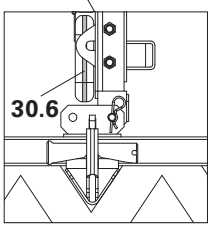


Fig. B2.09b

Assembly of second and additional platforms

1. Attach next platform to platform connector using pins (30.3) and cotter pins. (Fig. B2.10 + B2.10a)
2. Attach Platform Strut 246 (33) to top platform beam. (Fig. B2.11 + B2.11a)
3. Attach Platform Strut 264 vertically to the bottom platform beam. (Fig. B2.11 – B2.11b)

For panel extensions between two platforms, the lower drilled holes must be used.

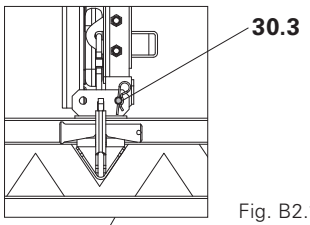


Fig. B2.10a

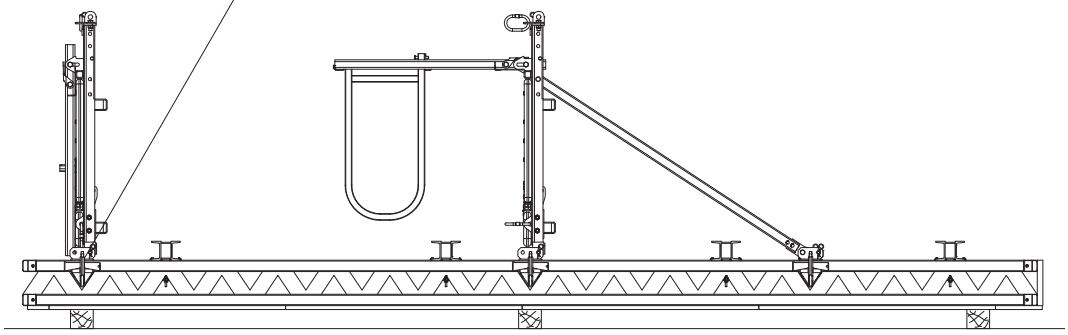


Fig. B2.10

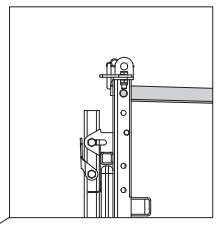


Fig. B2.11a

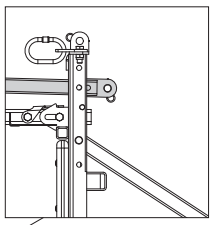


Fig. B2.11b

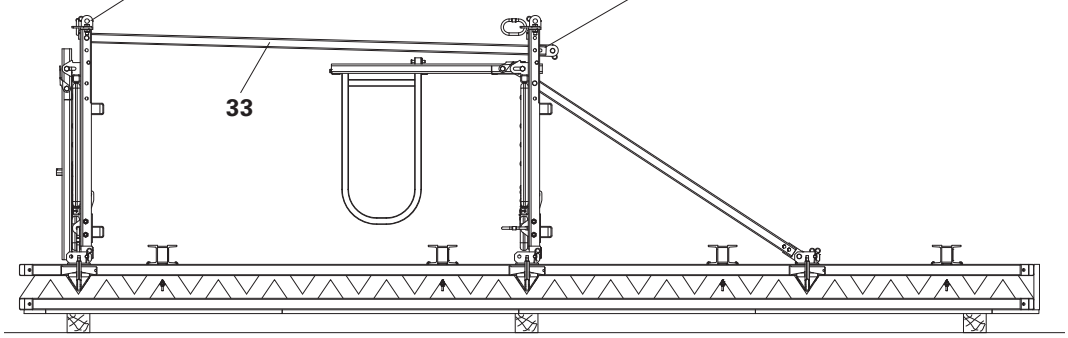


Fig. B2.11

Assembly of second and additional platforms

4. Mount ladder (34).
   (Fig. B2.12 + B2.12a + B2.12b)
5. Continue with Points 6 – 9 of the lowest platform.
   (Fig. B2.13)

Mounting of the kicker, see Section B1.

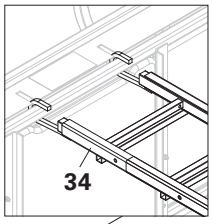


Fig. B2.12a

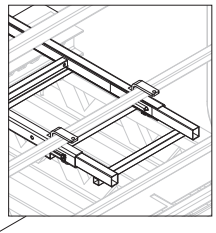


Fig. B2.12b

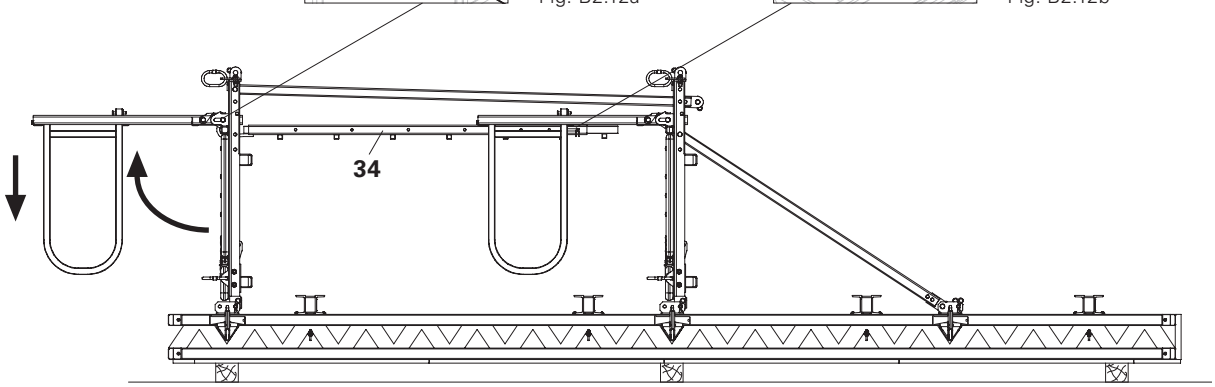


Fig. B2.12

Additional diagonal Platform Struts 246 (33) must be mounted for heights of 4.20 m, 7.20 m, 7.80 m and 8.40 m. For heights of 6.60 m and 8.40 m, Platform Struts 167 must be replaced by Platform Struts 264 (33) on the lowest platform.
(Fig. B2.13)

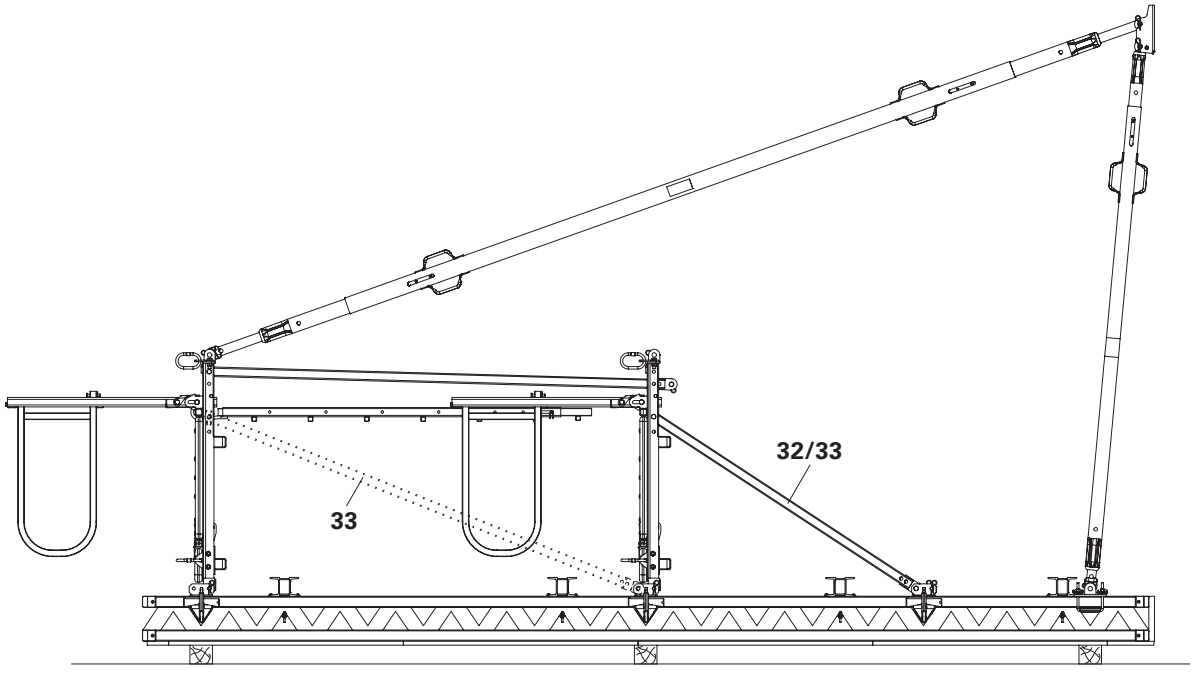


Fig. B2.13

Platform Bracket VARIO VBK 90

Permissible load: 150 kg/m².
Maximum width of influence: 1.25 m.

Platform on internal corner
The VARIO Platform Bracket VBK 90 (35) with Guardrail Post HSGP-2 (36) is fitted on the internal corner.
(Fig. B2.14)

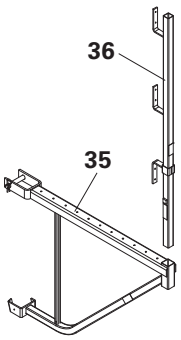


Fig. B2.14

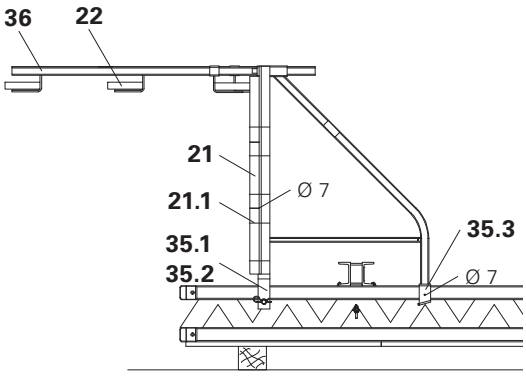


Fig. B2.15

Assembly on horizontally-positioned panel
If possible, mount the platform bracket on the compensation side.

1. Pull out locking pins (35.1).
2. Place platform bracket with top connecting claw (35.2) on the girder and secure with locking pins.
3. Secure bottom connecting claw (35.3) with nails.
4. Mount additional platform brackets.
5. Fix planking (21) across complete bracket width from below using Torx 6 x 40 (21.1).
6. Insert Guardrail Post HSGP-2 (36), place guardrail (22) including toe board and fix in position.
   (Fig. B2.15)

Fig. B2.16a with IRZ (42a)
Fig. B2.16b with VSRZ (42b)

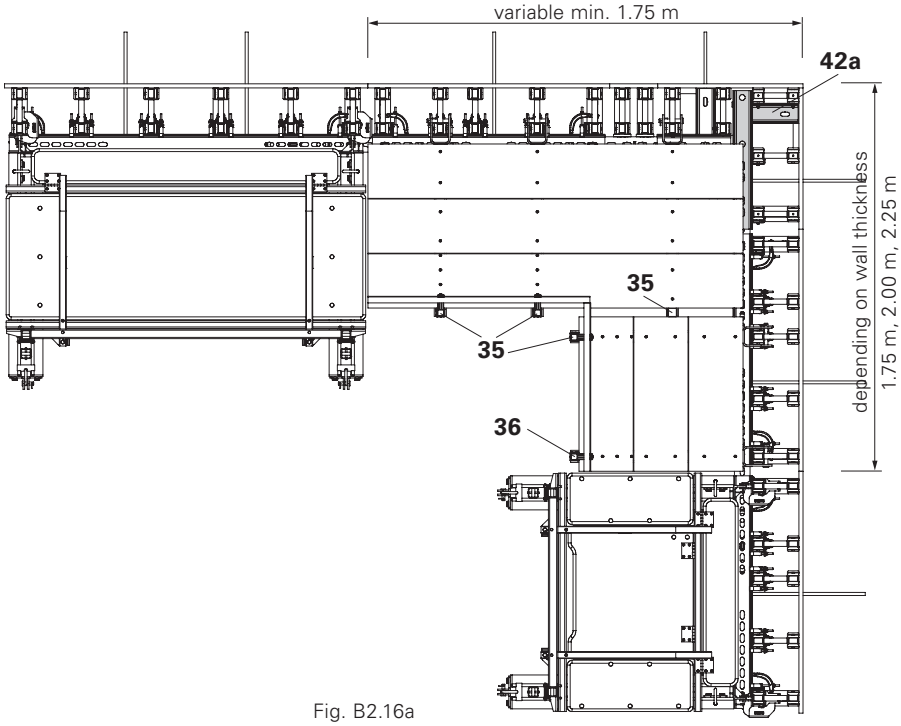


Fig. B2.16a

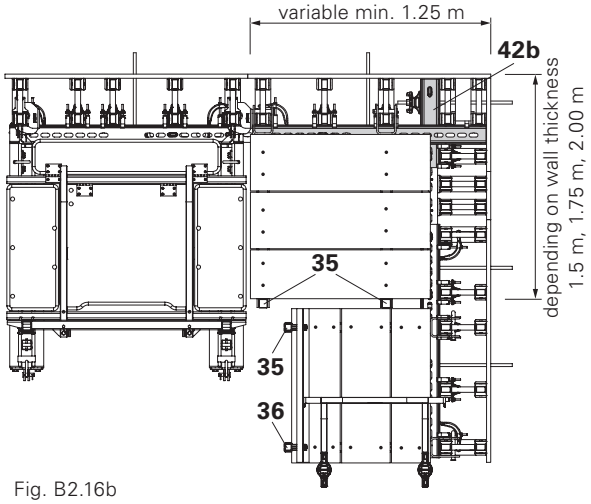


Fig. B2.16b

External Corner Platform VARIO

Permissible load: 150 kg/m².

Assembly

1. Fold out guardrail (37.1) and swivel both end handrails inwardly by 45°. They lock into place on the platform decking.
   (Fig. B2.18)
2. Attach external corner platform to crane (37.3) and then position.
   (Fig. B2.19)
3. Attach to neighbouring platform on both sides using the telescopic handrail hooks (37.4).
   (Fig. B2.20)

For multiple platform levels, corner platforms are to be attached from the bottom upwards.

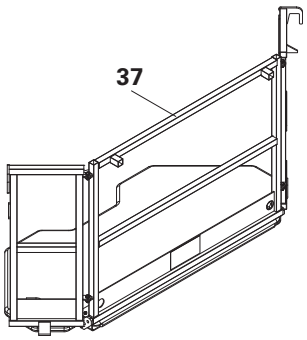


Fig. B2.17

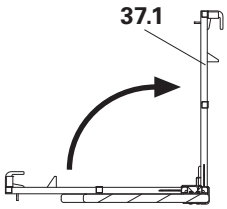


Fig. B2.18

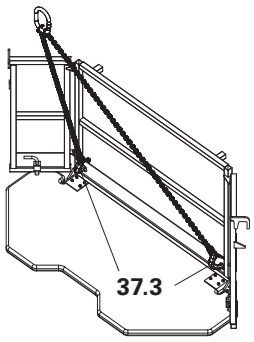


Fig. B2.19

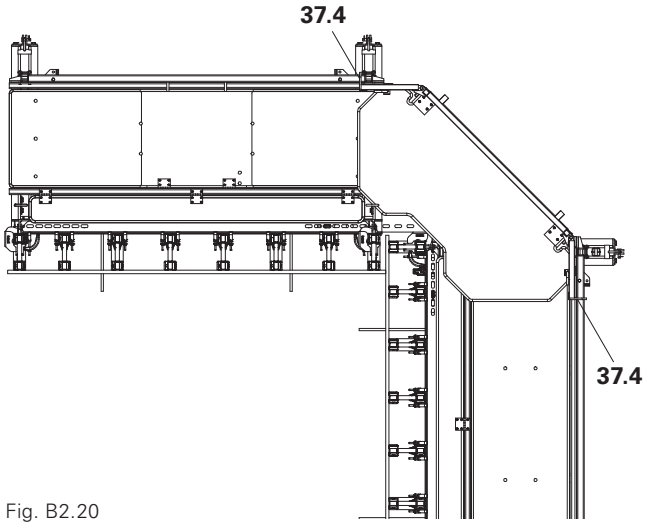


Fig. B2.20

Erecting and positioning

Permissible capacity on load-bearing point: 1100 kg.

1. Attach lifting gear to the crane lifting eyes (30.6), and erect or move formwork unit accordingly.
2. Secure formwork unit, e.g. with PERI Anchor Bolts 14/20 x 130 or similar.
   (Fig. B2.21)

Installation is possible up to a formwork height of 8.40 m.

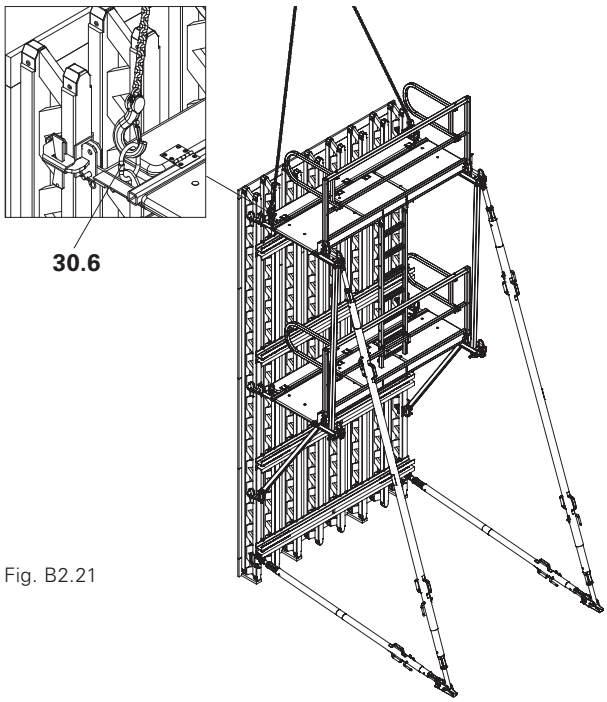


Fig. B2.21

Crane Splice 24

Follow Instructions for Use.
Permissible load-bearing capacity: 700 kg.

Assembly
- Mount Crane Splice 24 (7a) on the horizontally-positioned panel.
- Always attach 2 pieces symmetrically to the centre of gravity. (Fig. B3.01)

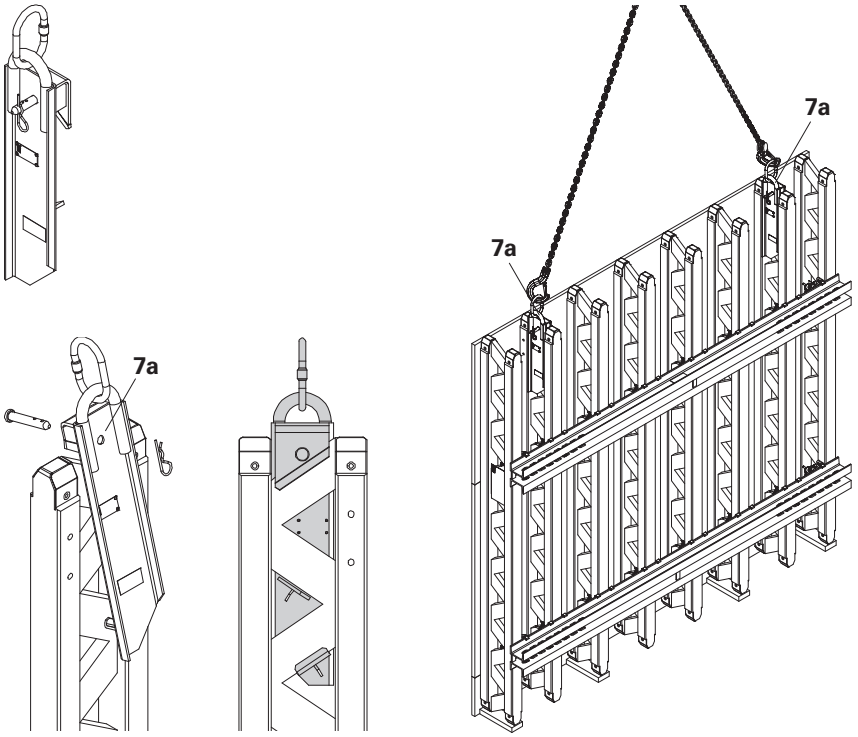


Fig. B3.01

Crane Eye 24 right/left

Follow Instructions for Use.
Permissible load-bearing capacity: 700 kg.

Assembly
- Drill holes into the girder chord: Ø 12 mm
- Mount Crane Eye 24 (7b) to the horizontally-positioned panel.
- Always attach 2 pieces symmetrically to the centre of gravity.
- Mount crane eye on the outside of the girder. (Fig. B3.02)

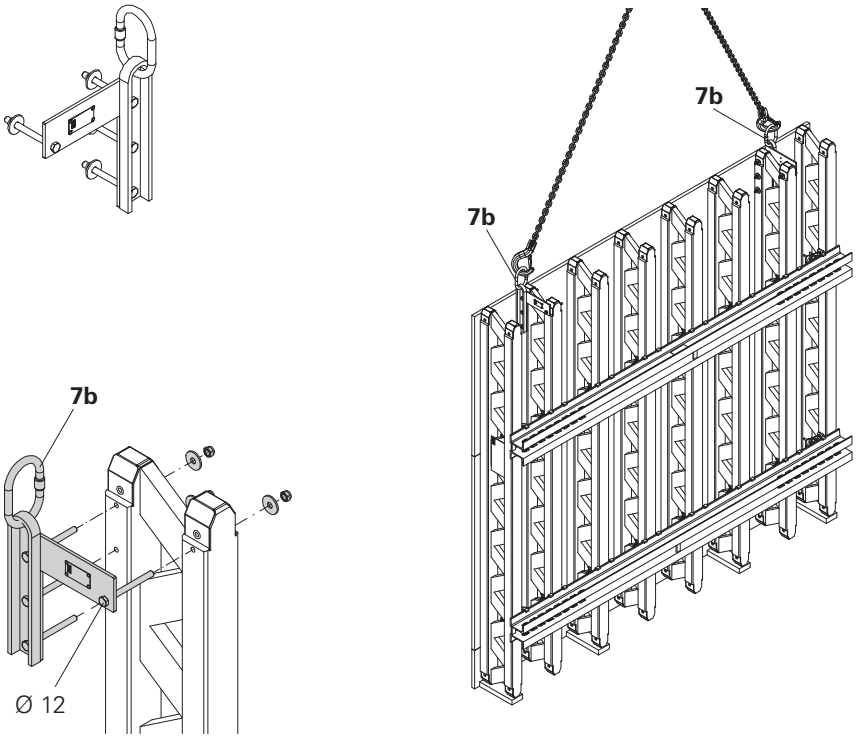


Fig. B3.02

Crane Hook 2 t / GT 24

Follow Instructions for Use.
Permissible load-bearing capacity: 2 t.

Assembly
- Mount Crane Hook 2 t / GT 24 (7c) on the horizontally-positioned panel.
- Always attach 2 pieces symmetrically to the centre of gravity. (Fig. B3.03)
- Compression braces must be installed between the crane hook. (Fig. B3.03a)

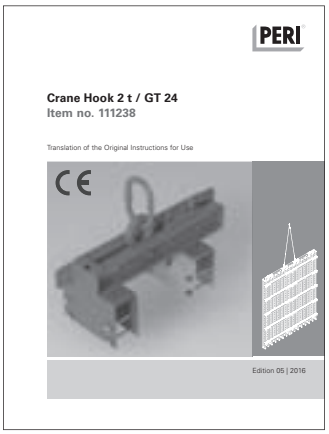


Fig. B3.04

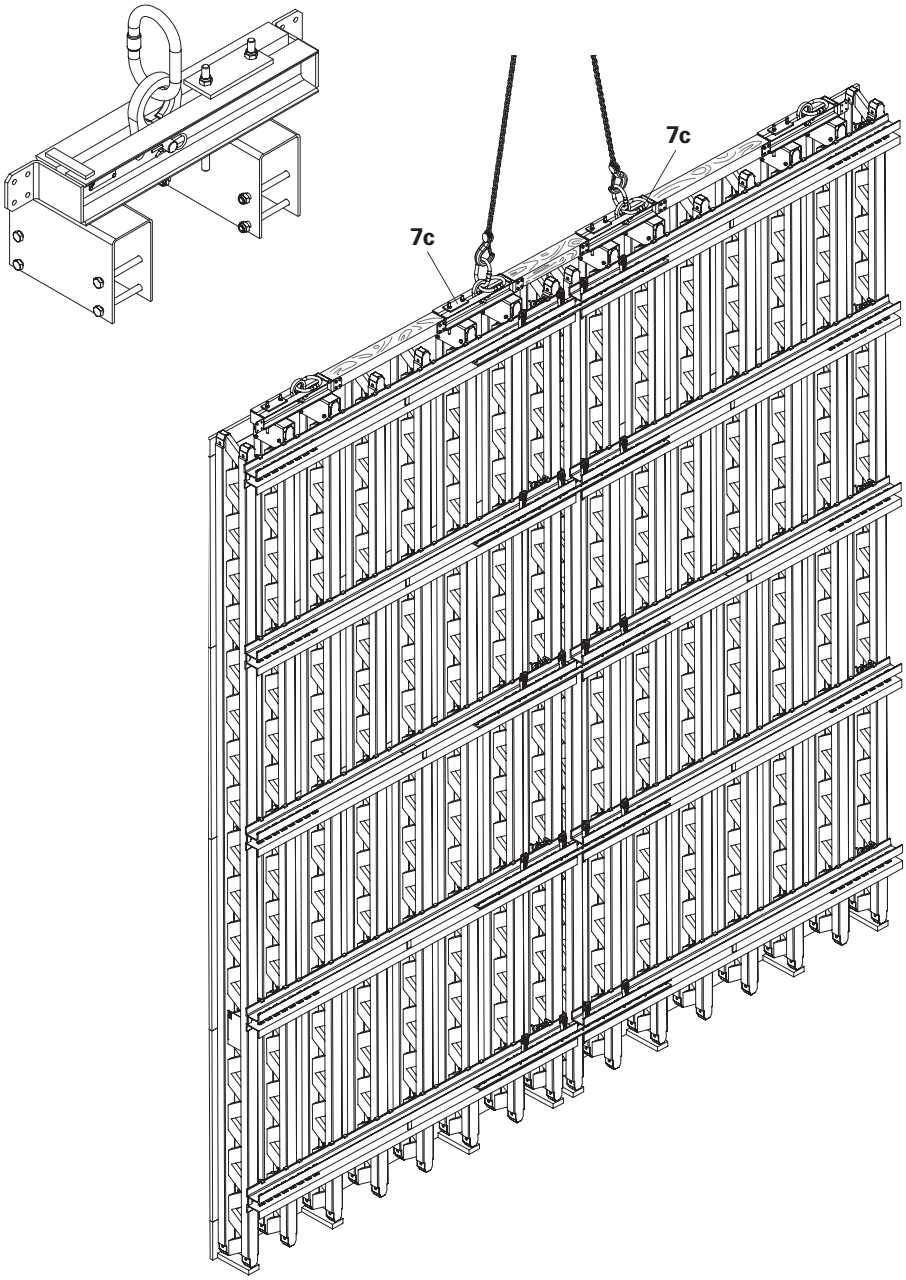


Fig. B3.03

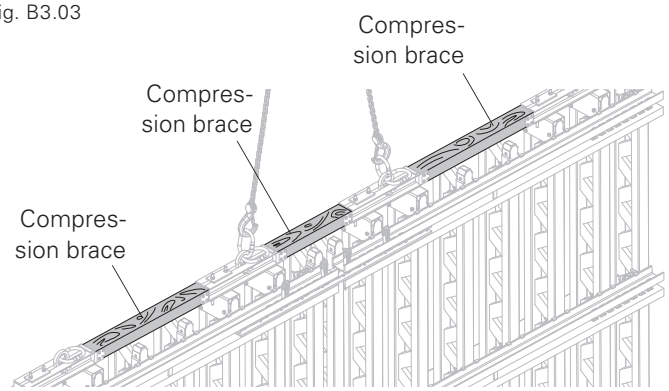


Fig. B3.03a

Outside Corner Coupling AKZ 85/85

Installation
The external corner is formed using two VARIO panels b = 250 cm.
Panel A with Outside Corner Coupling AKZ,
Panel B without coupling.

1. Insert Outside Corner Coupling AKZ (40) into the steel waler of the non-movable element. (Fig. B4.01)
2. Clamp Outside Corner Coupling in position with Wedge KZ (41b) = first longitudinal hole in the coupling and sixth longitudinal hole in the steel waler.
3. Insert second Wedge KZ (41a) as securing wedge into the steel waler. (Fig. B4.01)

Mount Outside Corner Coupling AKZ on horizontally-positioned panel to all steel walers.

Erection
1. Position panel with Outside Corner Coupling and secure.
2. Position second panel and adjust to suit wall thickness.
3. Remove Securing Wedge KZ (41a) and lift Wedge KZ (41b). (Fig. B4.03)
4. Swivel Outside Corner Couplings one after the other into the steel waler and tightly connect (tension and compression) by means of the Wedge KZ (41). (Fig. B4.04)

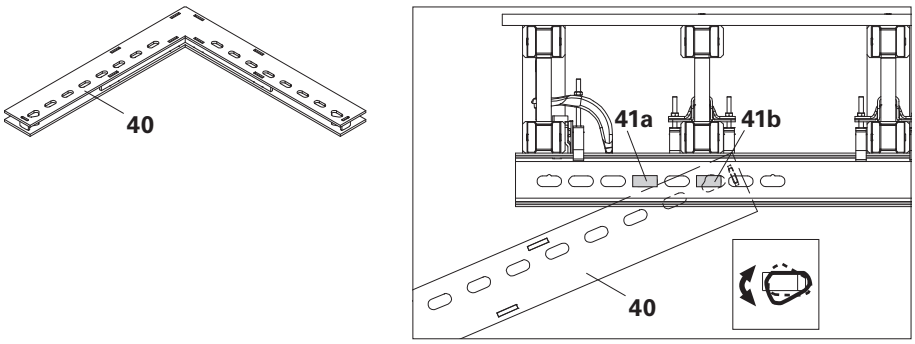
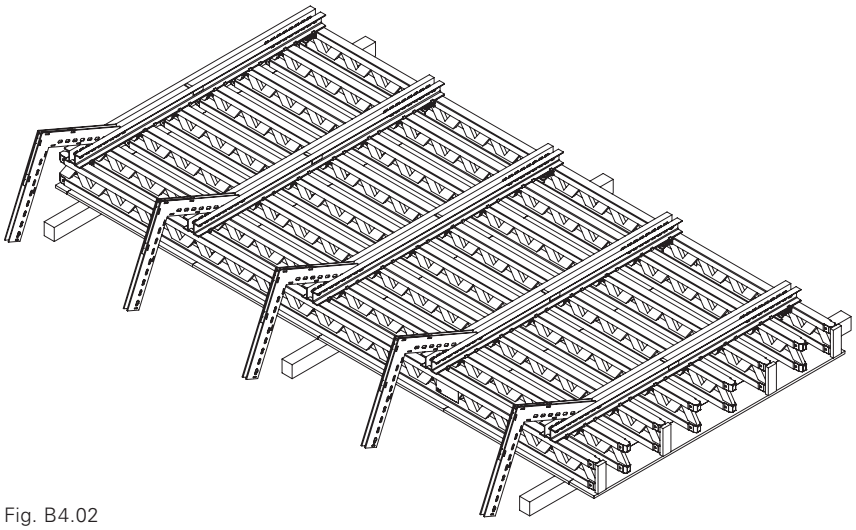


Fig. B4.01


Fig. B4.02

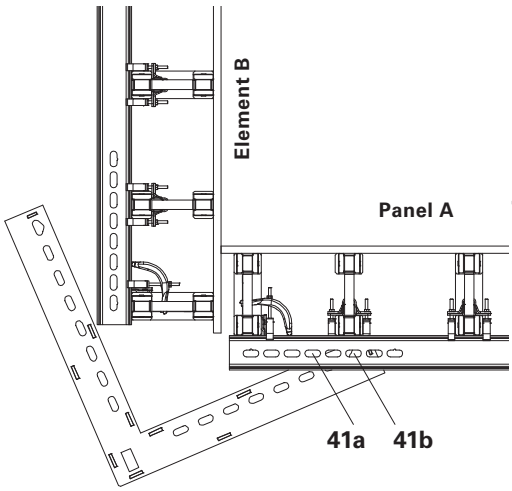


Fig. B4.03

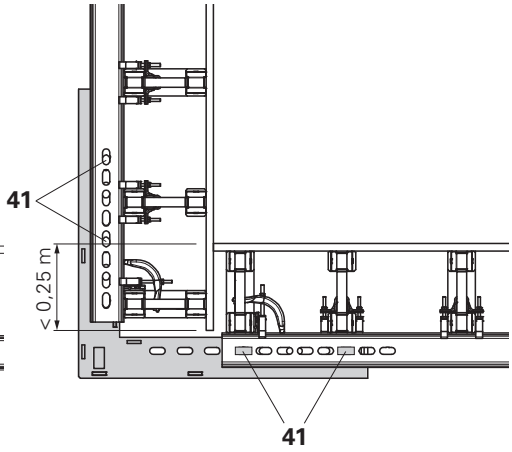


Fig. B4.04

Tie Yoke

Assembly

1. Position tie yoke (40a) with the help of the Wedge KZ so that it lies flat against the steel waler.
2. Install tie rod and screw on wingnuts as far as the tie yoke (40a).
3. Loosen Wedge KZ.
4. Tighten wingnuts with the help of the tie rod wrench.
5. Securely fix the Wedge KZ. (Fig. B4.05)

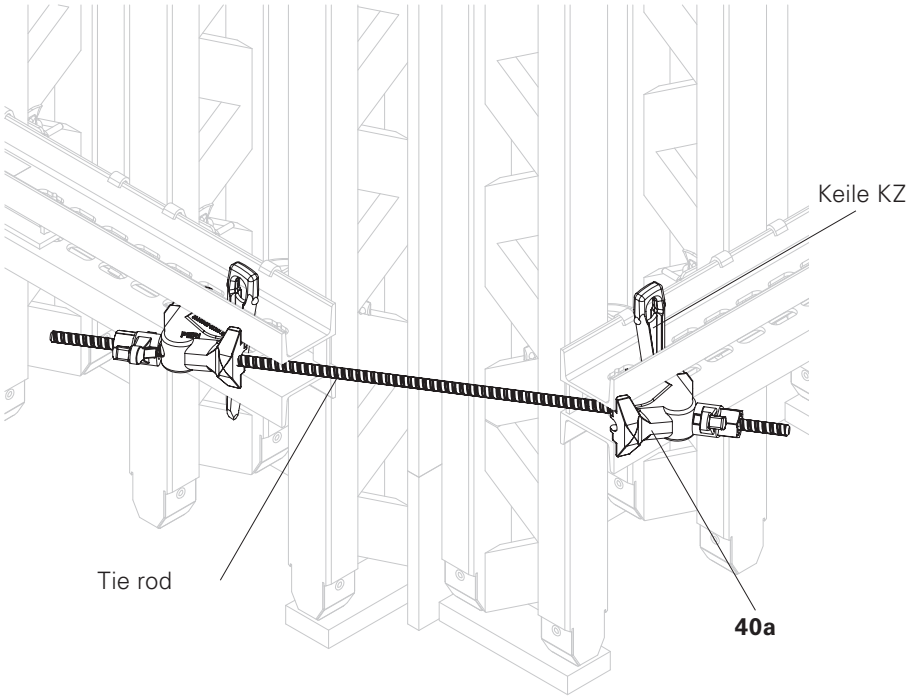


Fig. B4.05

Tie yoke does not lie completely against the steel waler.
(Fig. B4.06)

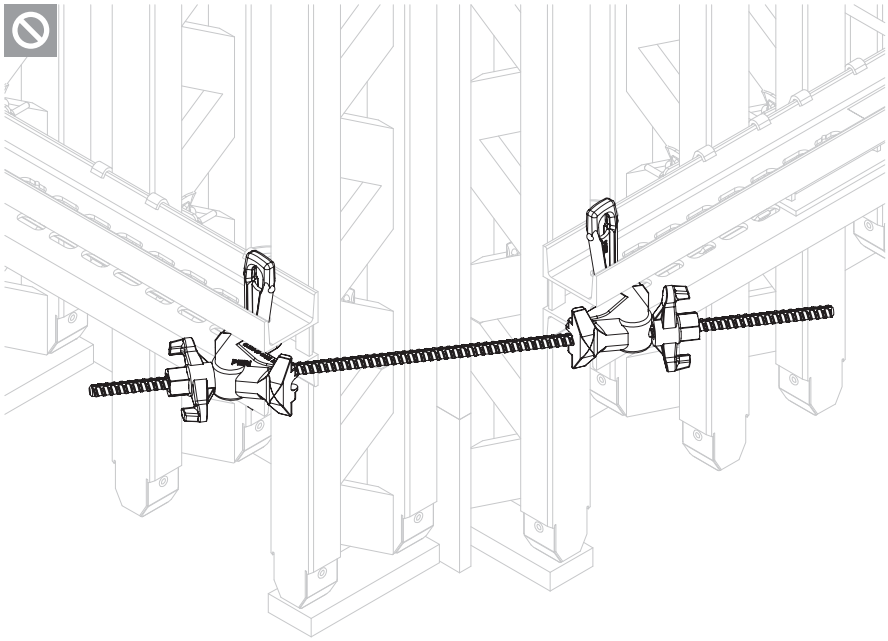


Fig. B4.06

Internal Corner Waler IRZ 75/75

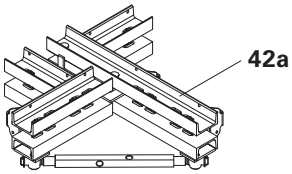
Element with a 75 cm side length for right and left corners.

Installation
Adjust Internal Corner Waler IRZ (42a) with the spindle (80).
Corner right = Fig. B5.01
Corner left = Fig. B5.02

Pay attention to mounting positions of internal corner waler and filler element.

Striking
Untighten spindle (80). This results in a striking clearance of approx. 24 mm. (Fig. B5.03)

After striking, screw spindle (80) back to original position.



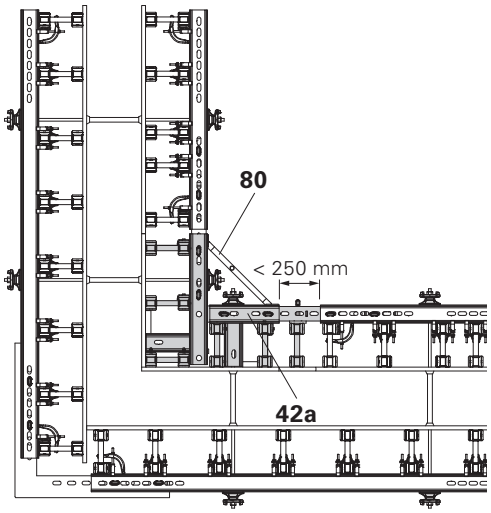


Fig. B5.01

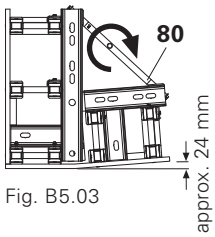


Fig. B5.03

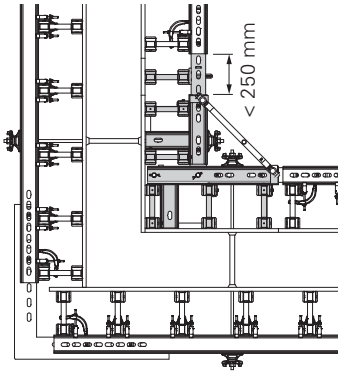


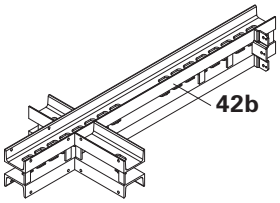
Fig. B5.02

VARIO Steel Waler VSRZ

Pay attention to mounting positions of steel waler and filler element.

Element with Steel Waler VSRZ (42b) and filler element.
Corner right = Fig. B5.04a
Corner left = Fig. B5.04b

Installation
Always begin in a corner!
Check if it is the right or left corner!
1. Support element.
2. Mount filler element according to the position of the wall element: see A3 Assembly of internal corner with VSRZ.
3. Install ties according to plan. (Fig. B4.03/B4.04)



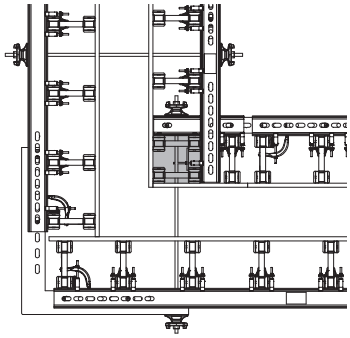


Fig. B5.04b

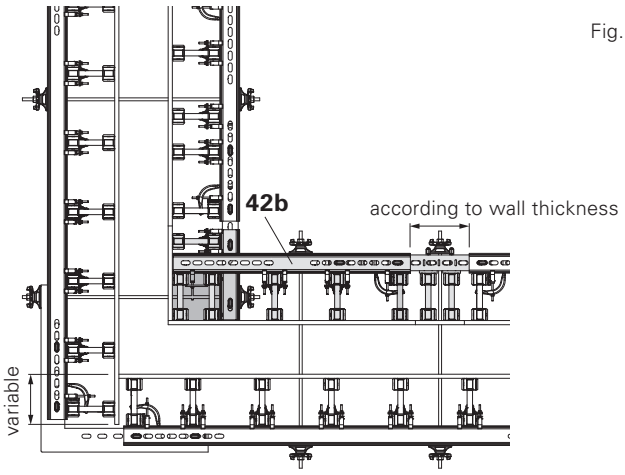
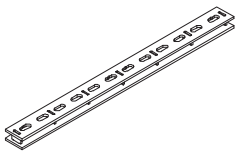


Fig. B5.04a

Coupling VKZ 99



- **Do not leave 3 longitudinal holes free in the steel waler otherwise the wedges are not properly tensioned.**
- **Ideally, 4 longitudinal holes are left free.**

Panel connections are formed with Coupling VKZ 99 (11) and four Wedges KZ (41).

The direction of the wedge tip shows whether the wedge pulls or pushes.

Wedge tip points to the element joint (a)
= wedge pulls

Wedge tip points away from the panel joint (b)
= wedge pushes
(Fig. B6.01)

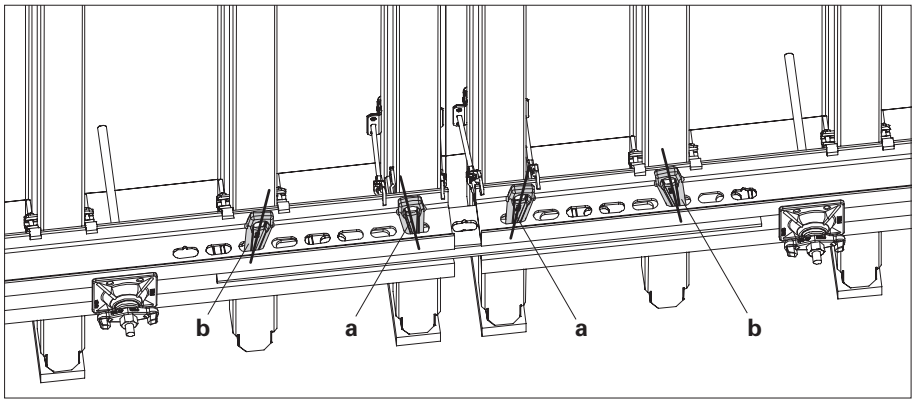
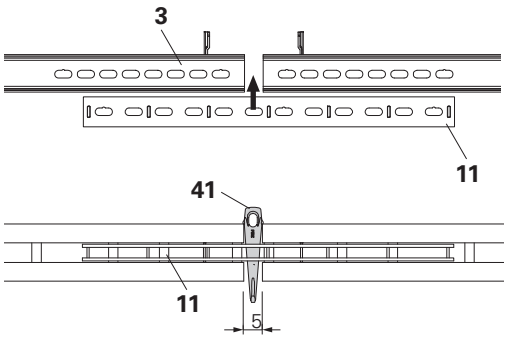


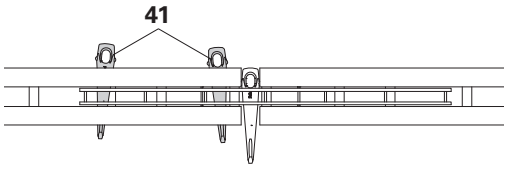
Fig. B6.01

Installation
The coupling is fitted so that the cutouts point toward the concreting side. This results in a flush panel joint.

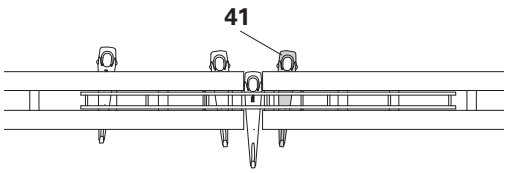
1. Centrally-position the coupling (11) between the steel walers and centre (Steel Waler SRZ) with Wedge KZ (41).



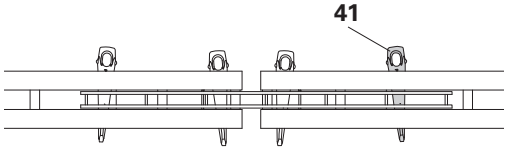
2. Hammer in second Wedge KZ (41) and third Wedge KZ (41) in the first and sixth longitudinal holes respectively.



3. Hammer in fourth Wedge KZ in the first hole on the opposite side.

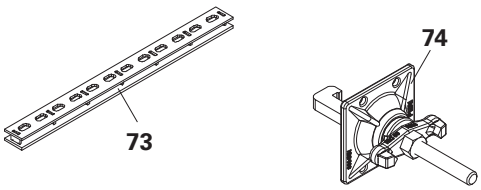


4. Remove first Wedge KZ (centring wedge) and hammer in the sixth hole.



Check wedges regarding correct left and right inclinations.

Coupling VKS 99 and Alignment Clamp VRS Architectural Concrete



– Compensation up to 5 mm panel offsets possible. (Fig. B6.02)

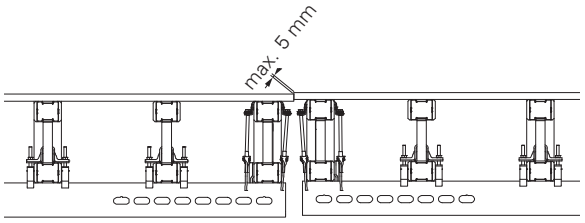
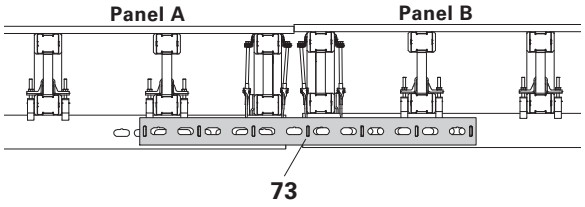


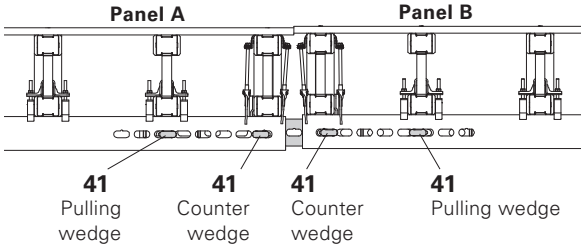
Fig. B6.02

Assembly

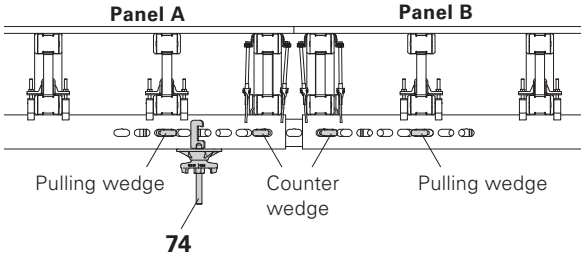
1. Centrally position the Coupling VKS 99 (73) on the panel joint in the steel waler.
   The tapering of the trapezodal-shaped cut-out points to the concreting side.



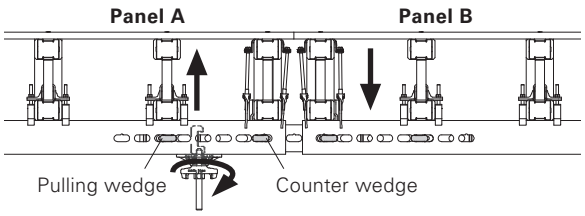
2. Hammer in Wedge KZ (41) as described in B6.



3. Attach one Alignment Clamp VRS (74) per steel waler to the rear-positioned panel in the Coupling VKS with spacer.
   Loosen pulling and counter wedges on Panel A. If necessary, use counter wedge to slightly open the plywood joint on Panel B.

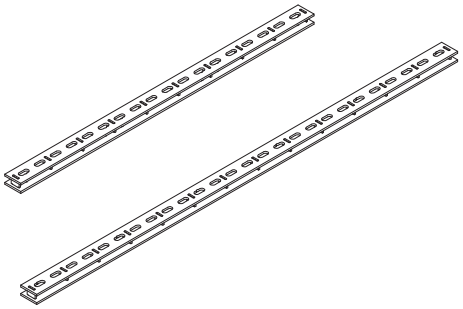


4. Tension the alignment clamp to compensate for the element offset.
   Tighten plywood joint on Panel A with the counter wedge and counter with the pulling wedge.



Coupling VKZ 147 and VKZ 211

Length compensations are formed with the Coupling VKZ 147 (11.1) and VKZ 211 (11.2) and four KZ Wedges (41) in each case.



Installation of VKZ 147 and VKZ 211

1. Insert length compensation (10) into the gap.
2. Centrally position Coupling VKZ.
3. Tightly hammer in two KZ Wedges (41) on one side.

Spacing: four longitudinal holes.

4. Loosely insert two KZ Wedges on the other side.

Spacing: four longitudinal holes.

5. Pull pre-mounted length compensation to the coupling by means of the K wedge (13).
6. Tightly hammer in KZ Wedge (41) on the other side.
   (Fig. B7.01 + B7.02)

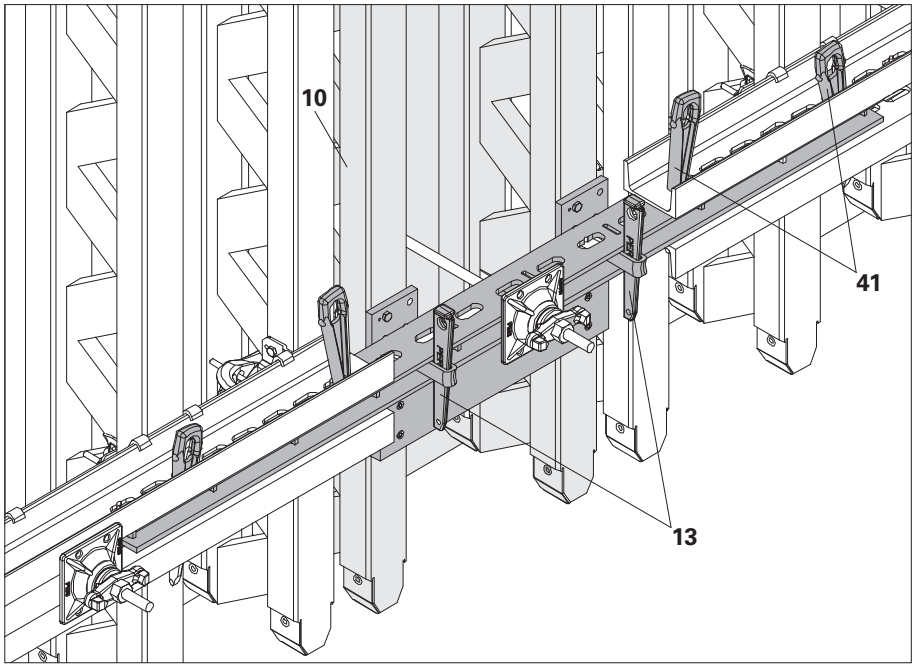
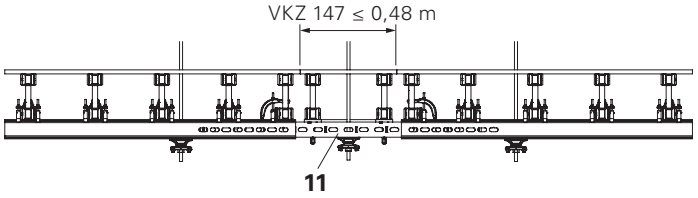


Fig. B7.01



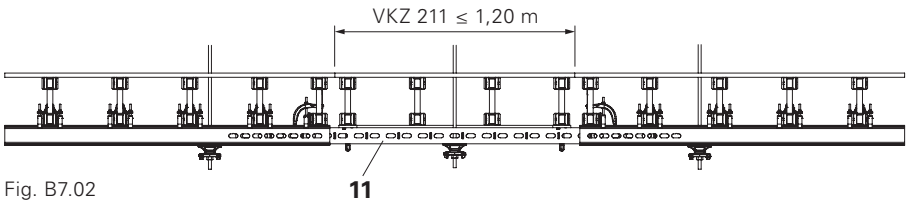


Fig. B7.02

Filler element

Maximum width compensation:
VKZ 147 = 0.48 m
VKZ 211 = 1.20 m

The filler element (10) is used for longitudinal compensation between the panels.
VKZ 147 or VKZ 211 (11) Couplings are used for this purpose.
(Fig. B7.03)

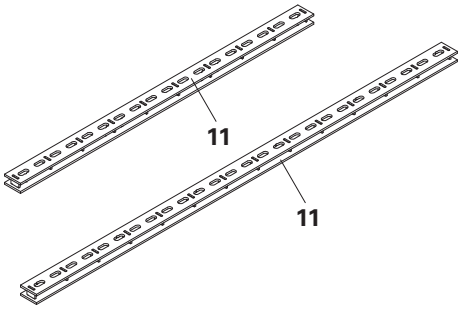


Fig. B7.03

Cutting the filler plate
Cut = compensation space.

Assembly
1. Maintain girder spacings as with the VARIO panel.
2. Plywood projects over left and right edges by 2.5 cm. (Fig. B7.05)
3. Mount coupling compression plate (12) to each GT 24 Girder at the level of the steel waler and secure with K wedges (13).
4. Fix diagonals using wood screws M8 x 60 (6.2).
5. Brace GT 24 Girder to prevent tipping, e.g. with plywood strips.
6. Provide tie holes depending on the filler area.
(Fig. B7.04)

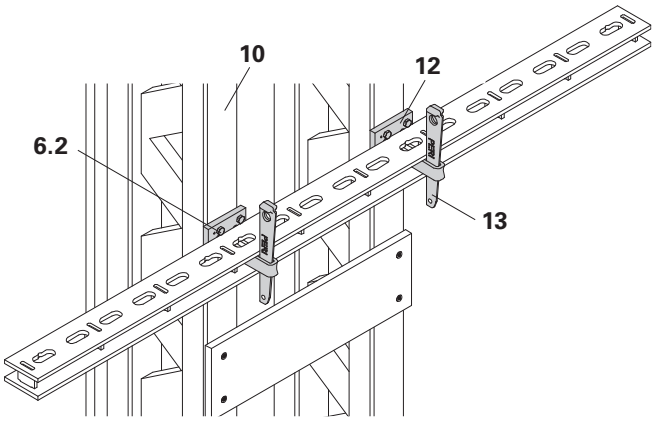


Fig. B7.04

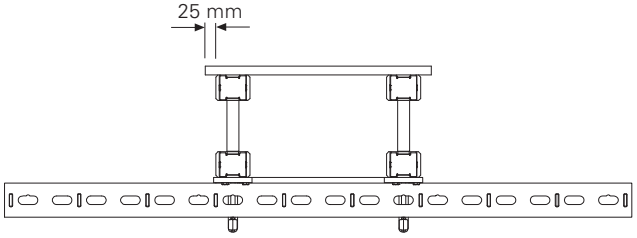


Fig. B7.05

Tie Systems DW 15, DW 20, DW 26.5

Permissible loads:
DW 15 = 90 kN
DW 20 = 150 kN
DW 26.5 = 250 kN

- Do not exceed permissible tie loads.
- Do not exceed the permissible fresh concrete pressure.
- Vertical tie spacings conform to waler positions and loads.

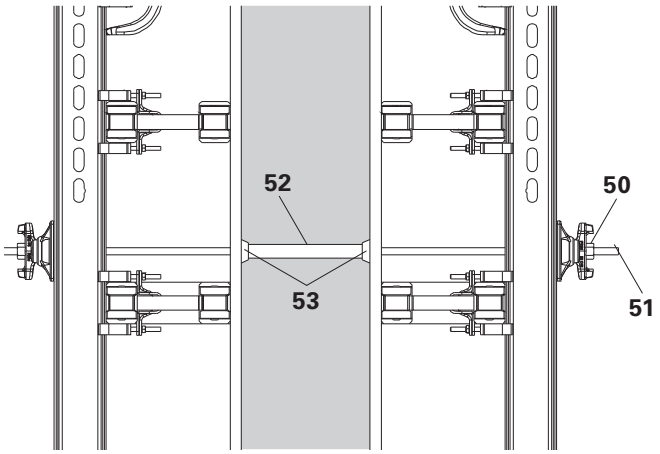


Fig. B8.01

Installation with DW 15

1. Screw Wingnut Pivot Plate DW 15 (50) onto tie rod and insert pre-assembled tie rod (51) from the outside through the primary formwork.
2. Push spacer tube (52) with cones (53) onto the Tie Rod DW 15 (51).
3. Position closing formwork.
4. Push Tie Rod DW 15 (51) through the closing formwork, then screw on Wingnut Pivot Plate DW 15 (50) and tighten firmly.
   (Fig. B8.01)

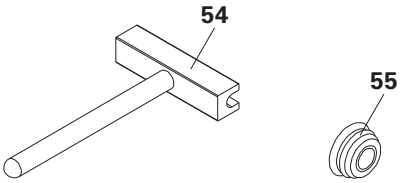


Fig. B8.02

Miscellaneous

- Tie rod wrench (54) for tie point operations is used by one worker from one side only.
- Plugs (55) for closing unused tie holes.
  (Fig. B8.02)
- For special arrangements of tie holes: see PERI Tie Technology brochure.

Coupling VKZ 99

Permisible tension force 50 kN.

Installation

1. Place prefabricated stopend element against limit plate (57).
2. Mount spacer timber (58) (provided by contractor).
3. Insert Coupling VKZ 99 (11) into the Steel Waler SRZ (3).
4. Fix Coupling VKZ 99 with Wedge KZ (41).
5. Hammer in KZ Wedges (41) tightly to fix stopend panel. Pulling wedge before pushing wedge. (Fig. B9.01)

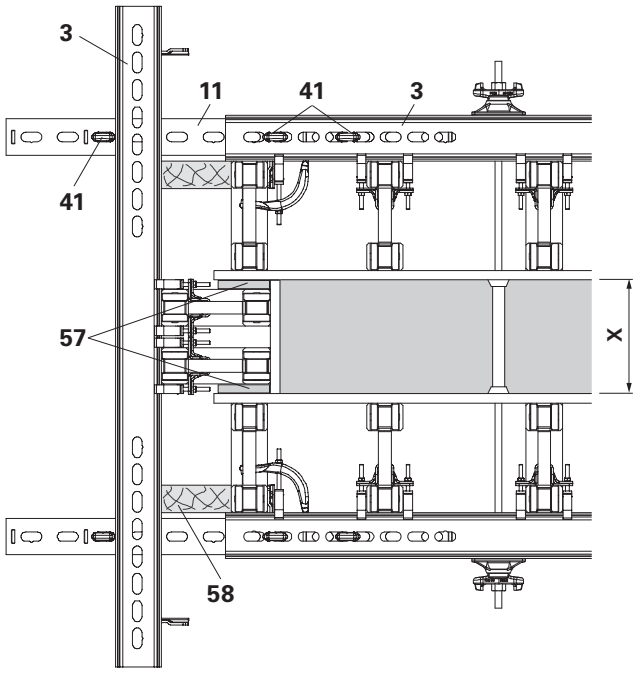


Fig. B9.01

Stopend Tie

Permissible tension force: 30 kN.

Installation

1. Insert Stopend Tie (56) into the Steel Waler SRZ (3) of the panel.
2. Tightly fix stopend tie by hammering in KZ Wedges (41).
3. Screw in tie rod with the tie rod spanner into the threaded sleeve (56.1) as far as possible.
4. Adjust inner wingnut pivot plate (50.1) accordingly.
5. Place prefabricated stopend element against the limit plate (57).
6. Screw on outer wingnut pivot plate (50.2) and tighten stopend element. (Fig. B9.02)

Permissible wind force X for stopend formwork: see PERI Design Tables.

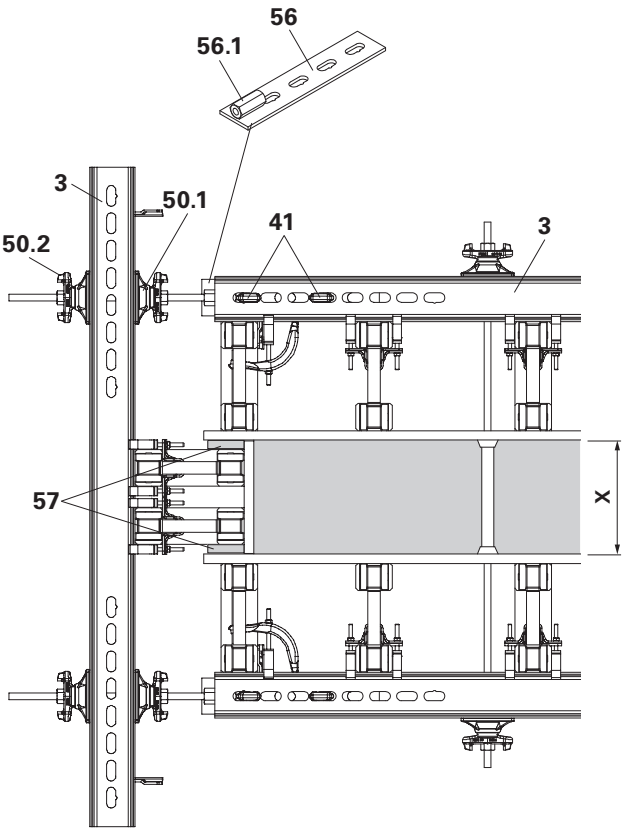


Fig. B9.02

Extension Splice 24 up to max. 8.00 m

The required number of Extension Splices 24 (59) depends on the panel height.

Example; panel width 2.50 m
h ≤ 5.00 m: 4 extension splices (Fig. B10.01)
h > 5.00 m: 8 extension splices (Fig. B10.02)

Static values

$M_{perm.}$ = 1.73 kNm
$Q_{perm.}$ = 0

or
$M_{perm.}$ = 0
$Q_{perm.}$ = 5 kN

$$\frac{M + 0.07\ Q}{0.28} + Q \leq 6.2$$

Static values when moving VARIO GT 24 panels

$Z_{perm.}$ = 5.7 kN
M = 0
Q = 0

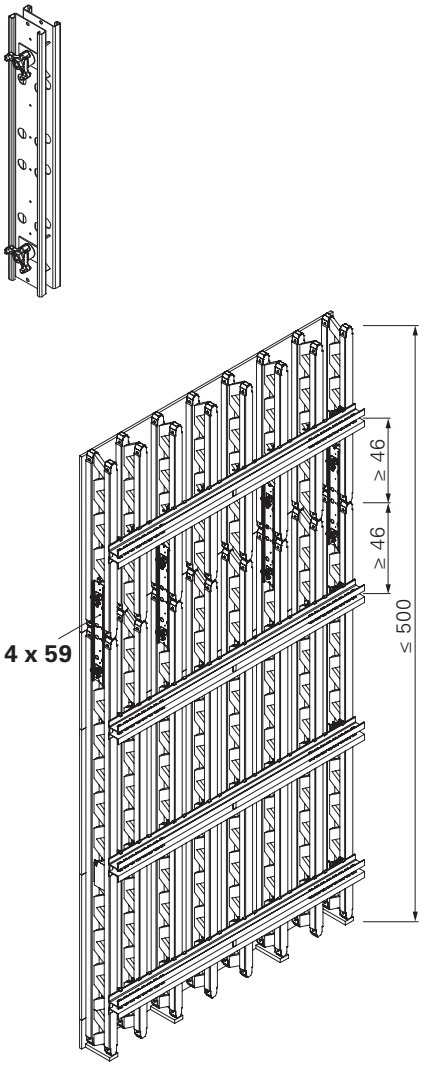


Fig. B10.01

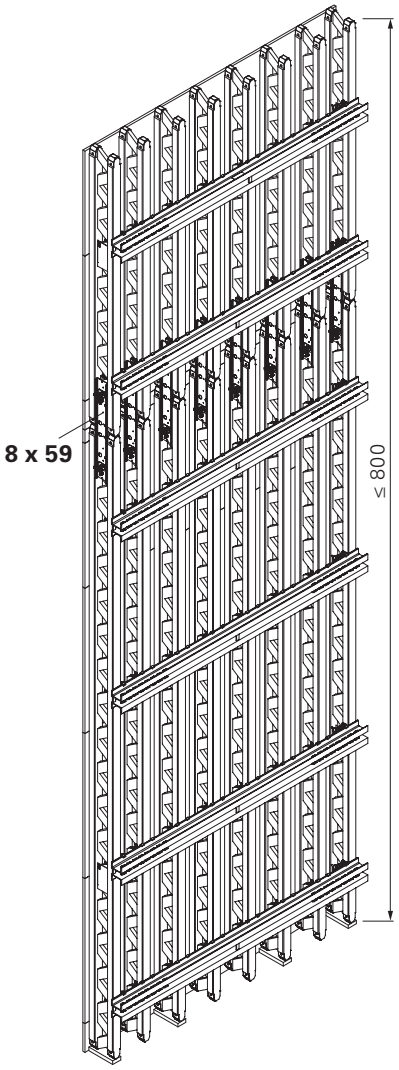


Fig. B10.02

Assembly on horizontally-positioned panel

With extended elements, the Crane Splice 24 or Crane Eye 24 must be mounted on the girders with the Extension Splice 24.

1. Remove triple wingnuts (59.2).
2. Position splice parts (59.1) on the right and left of the lattice girder.
3. Connect both parts of the splice and tighten with the triple wingnuts. (Fig. B10.03)

The connection is now tight, rigid and flush.

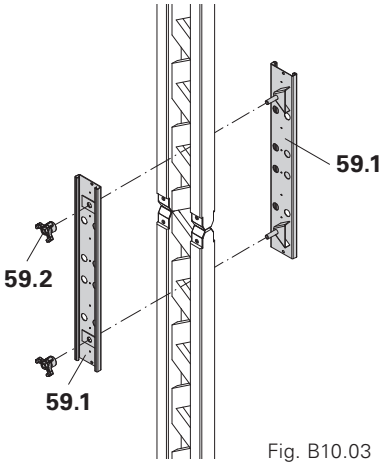


Fig. B10.03

Extension Splice 24 and timbers up to max. 60 mm

(Fig. B10.06)

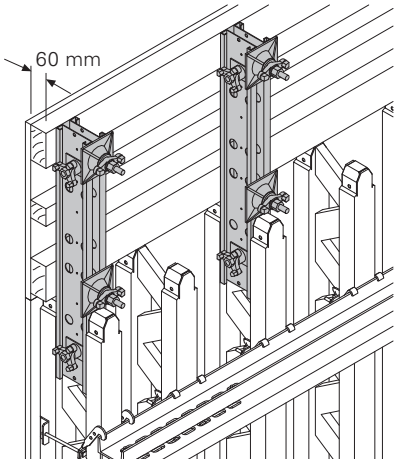


Fig. B10.06

Overlapping girders up to max. 11.90 m

The number of girders depends on the panel widths and heights: see PERI Design Tables.

With overlapped girders (2) for heights of up to 9.80 m.
(Fig. B10.04)

With additional overlapped girders (2) for heights of up to 11.90 m.
(Fig. B10.05)

All extensions must be determined during the planning phase.

Assembly takes place on the horizontally-positioned panel.

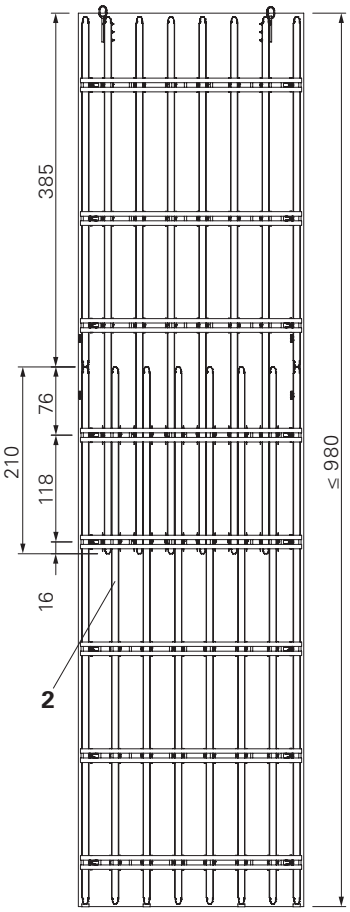


Fig. B10.04

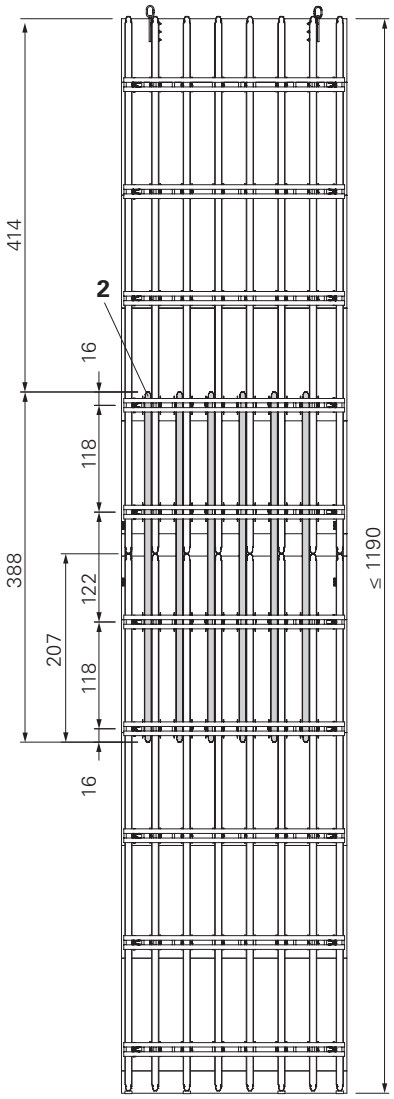


Fig. B10.05

C1 T-junctions 90°, obtuse-angle wall connection

T-junctions 90°

Depending on the wall thickness, the SRZ or SRU steel walers can be used.
Please note:
Compensation is always < 25 cm.

With inner compensation
Example with a wall thickness of 30 cm.

Required components:

3a	Steel Waler SRZ
42	Internal Corner Waler IRZ

(Fig. C1.01)

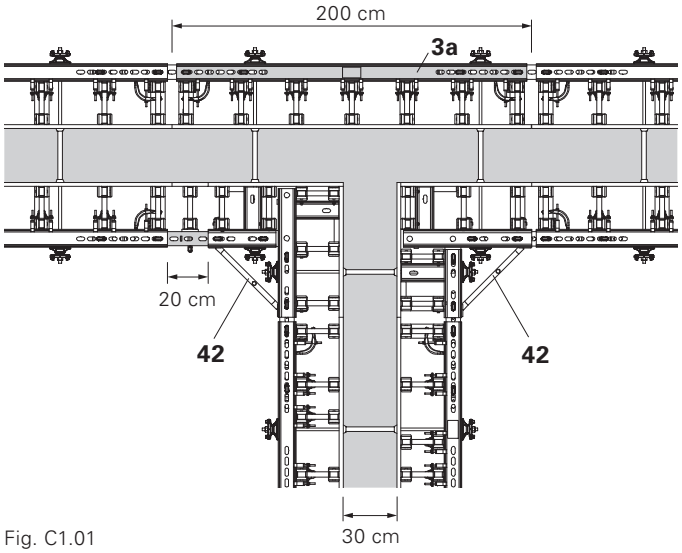


Fig. C1.01

Without compensation
Example with a wall thickness of 30 cm.

Required components:

3b	Steel Waler SRU
42	Internal Corner Waler IRZ

(Fig. C1.02)

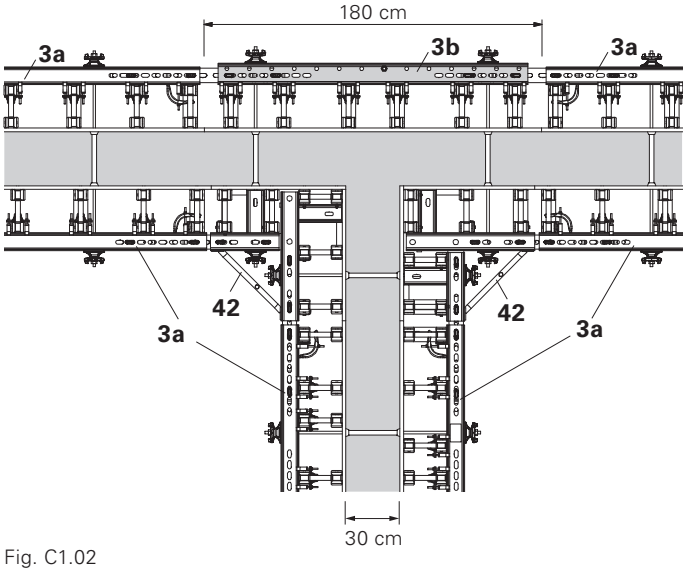


Fig. C1.02

Obtuse-angle wall connection

The tie position is always moved by 62.5 cm.
(Fig. C1.03)

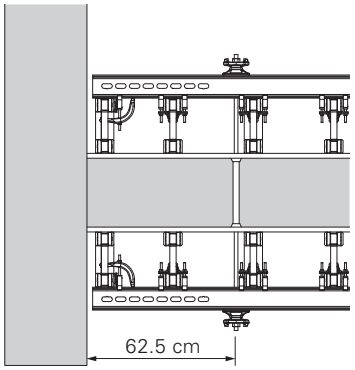


Fig. C1.03

Articulated Coupling GKZ

With the Articulated Coupling GKZ (43), angles larger than 48° can be continuously formed.
(Fig. C2.01)

The KZ wedge ensures secure and correct mounting as shown in B6.

For use with:
- external and internal corners with standard wall thicknesses
- with large wall thicknesses, e.g. bridge construction (Fig. C2.02)
- polygonal circular formwork (Fig. C2.03)

The larger Articulated Coupling GKZ 76/76 is normally mounted on the outside, the smaller GKZ 60/60 on the inside.

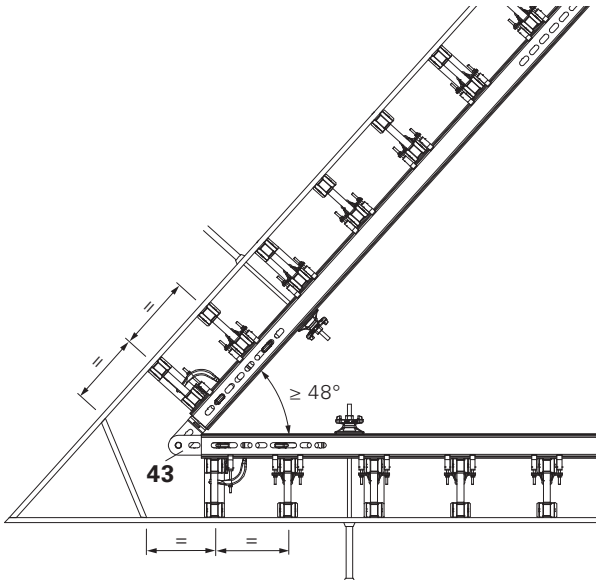


Fig. C2.01

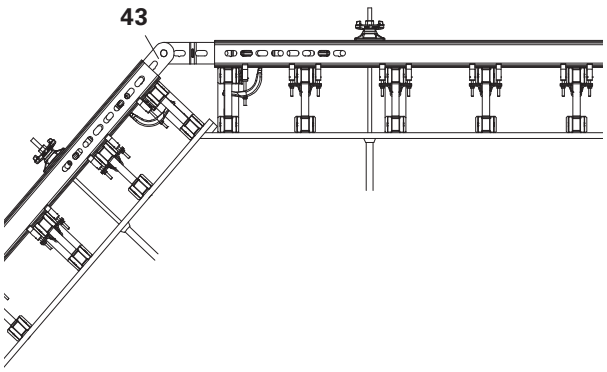


Fig. C2.02

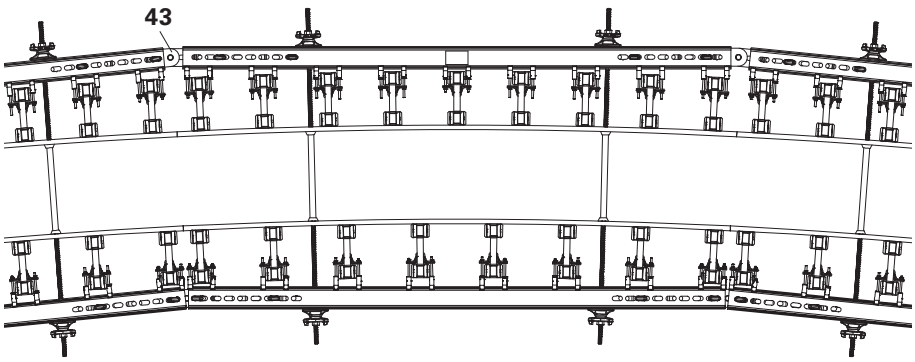


Fig. C2.03

Quick Release Corner SSE

For easy striking of shaft formwork and in tight spaces.

Internal formwork consists of:
Panel with project-related Cross Waler KRZ, Corner Coupling EKZ and Quick Release Corner SSE (60).

External formwork consists of:
VARIO Panels connected with the Tie Yoke SKZ and tie rod.

Shuttering
1. Position internal panels and install Quick Release Corner SSE (60) in the corner.
2. Tighten wingnuts (61) on the SSE. The formlining is then fixed. (Fig. C3.02)
3. Position external formwork, diagonally connect and anchor using tie yoke, tie rod, wingnut and KZ Wedge. (Fig. C3.01)

Striking
1. Loosen ties and and remove external formwork.
2. Release wingnuts (61) on the SSE, push tie rod (62) forward (hammer) and swivel clamps (63) inwards. (Fig. C3.03)
3. Pull out wedge and remove EKZ Corner Coupling and internal elements. (Fig. C3.04)
4. Remove quick release corner.

Install grippers or spindle, e.g. SLS (64), at every waler position on the internal element. The internal element can then be removed more easily from the concrete.
(Fig. C3.04)

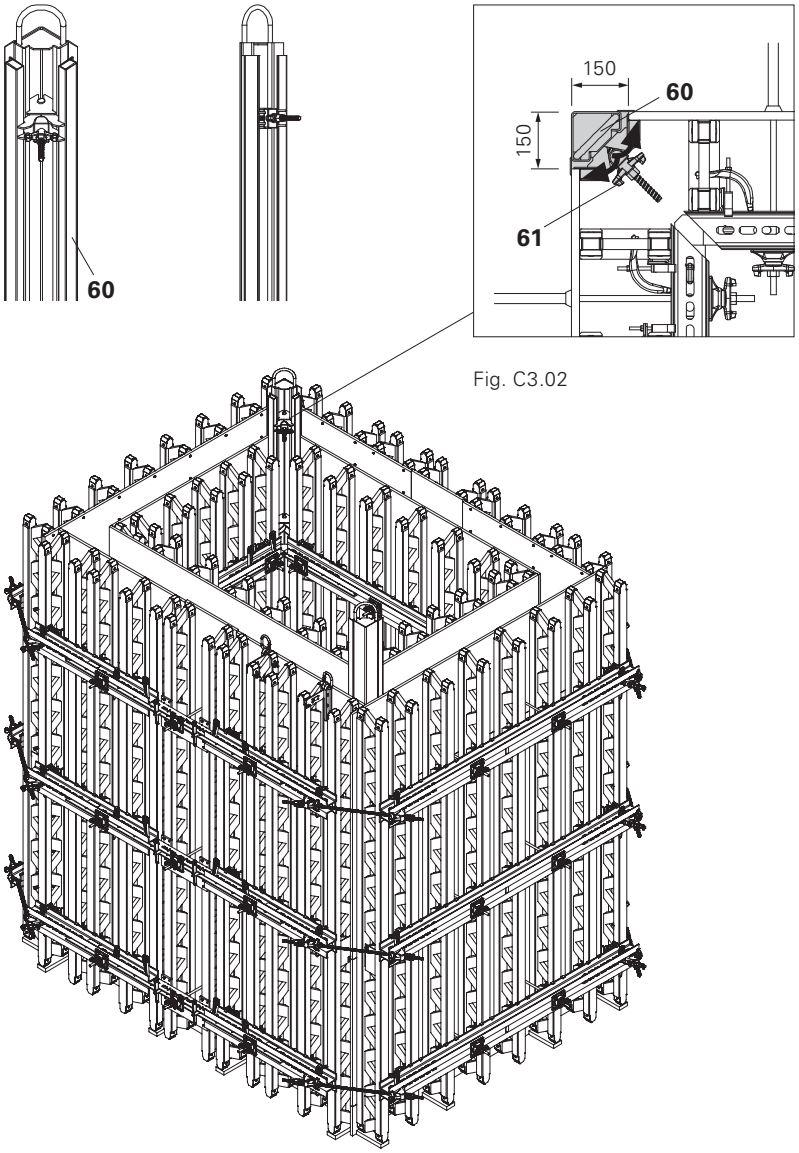


Fig. C3.02

Fig. C3.01

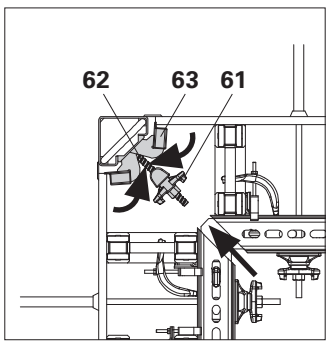


Fig. C3.03

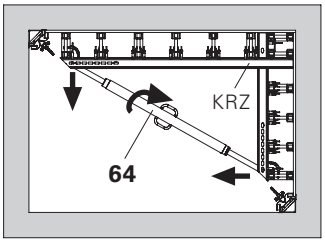


Fig. C3.04

D1 Steel Waler SRU

The Steel Waler SRU (75) has a wide range of functions and supplements the VARIO system, e.g. in civil engineering or special constructions.

Features:
- Profile U 120 (a)
- No end plate
- Lengths up to 6.00 m, 25 cm or 50 cm increments
- With edge beams:
  - no girder claw or HBU, instead notches for securing the Hook Strap HB (b)
  - drilled holes Ø 21 every 12.5 cm along the complete length for various connections, e.g. Universal Coupler UK 70 (c)
  - VARIO Extension 24 (d) connection holes for forming VARIO Walers
  - reinforced spacer plates only at front (e) (Fig. D1.01)

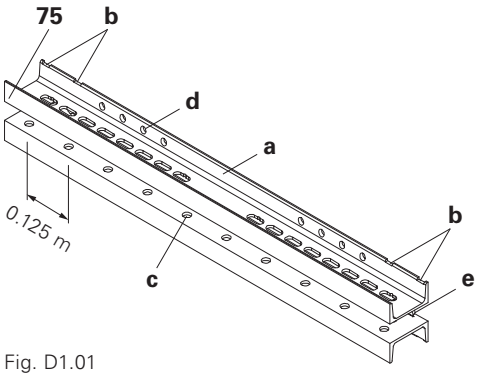


Fig. D1.01

Installation
The cut-outs on the longitudinal holes point towards the concreted side.

SRU/SRU panel connection
With Coupling VKZ (11) and Wedge KZ (41).
Spacing between the SRU Walers (75) is 3 cm.
(Fig. D1.02)

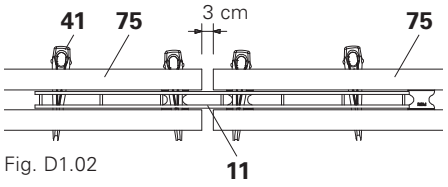


Fig. D1.02

SRU/SRZ panel connection
With Coupling VKZ (11) and Wedge KZ (41).
Spacing between the SRU (75) and SRZ Walers (3) is 4 cm.
(Fig. D1.03)

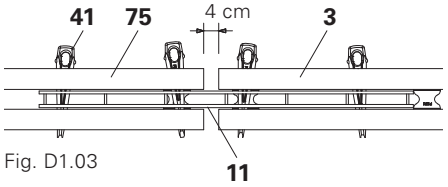


Fig. D1.03

VARIO Extension 24
The VARIO Extension (76) is a screwed connection for subsequent construction of a VSRZ Steel Waler (77) or as bracing.
(Fig. D1.04 + D1.05)

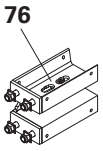


Fig. D1.04

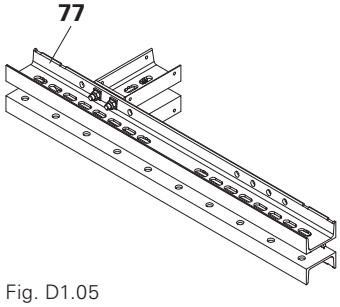


Fig. D1.05

D2 Universal Coupling UK 70

– For rigid connections with the SRU Steel Waler.
– For connecting push-pull props, tie rod cylinder yokes and SLS Heavy-Duty Spindles.
– As fixing point for diagonal bracing. (Fig. D2.01)

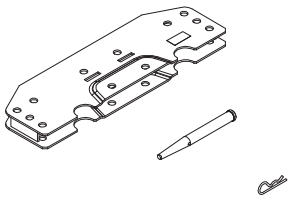


Fig. D2.01

Assembly
The UK 70 Universal Coupling (78) is fixed using four fitting pins and cotter pins (79).
(Fig. D2.02)

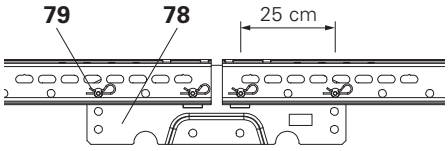


Fig. D2.02

The spacing between two pins must be at least 25 cm.

Parts list for access ladders

For higher VARIO GT 24 column elements, two access ladders are mounted!

Ladder access A
With access to the concreting platform.

Ladder access B
Without exit possibility, only for bracing the column formwork.
(Fig. D3.01)

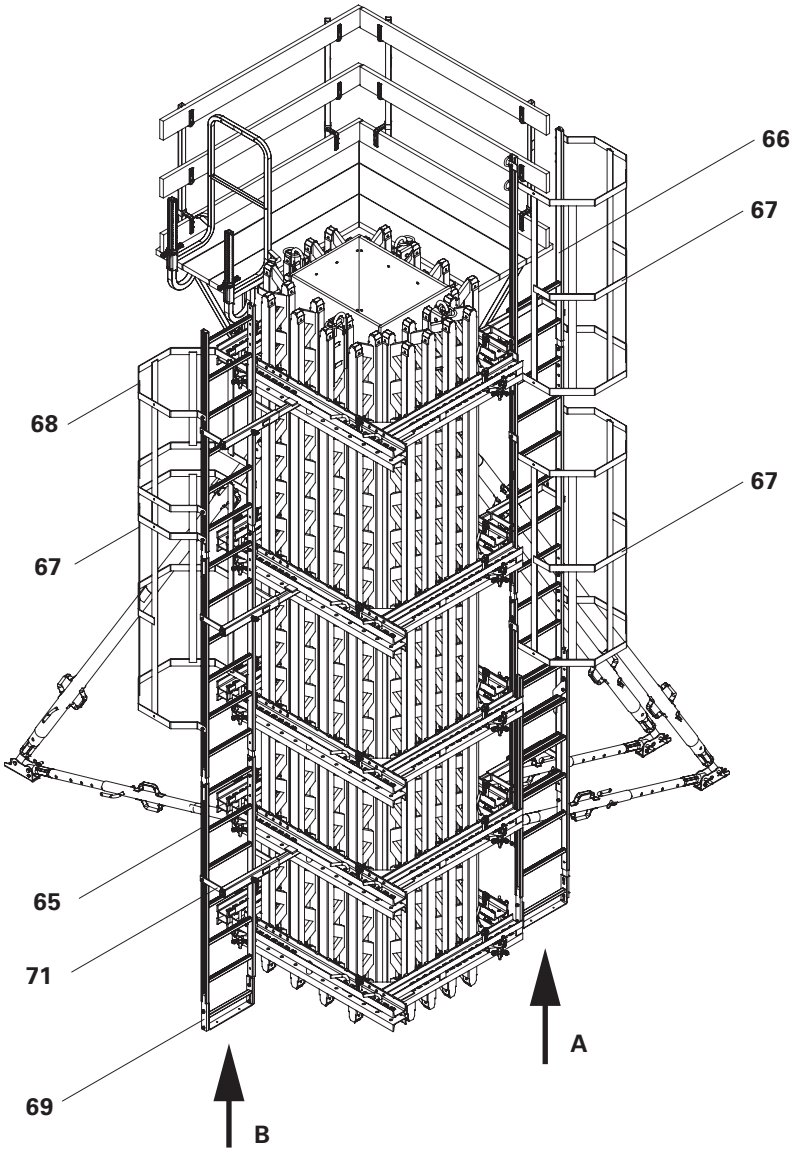


Fig. D3.01

Parts list for two access ladders

Pos.	Item no.	Designation	2.70 – 3.60 m		3.90 – 4.20 m		4.50 – 6.00 m	
			A*	B*	A*	B*	A*	B*
65	051410	Ladder 180/6	2	2	2	2	3	3
66	103724	End Ladder 180/2	1	0	1	0	1	0
67	051450	Ladder Safety Cage 150	0	0	1	1	2	2
68	104132	Ladder Safety Cage 75	1	1	1	0	2	1
69	051460	Ladder Base	1	1	1	1	1	1
70	103718	Ladder Hook	2	2	2	2	2	2
71	103362	Ladder Connection VARIO	2	2	2	2	3	3

A* = ladder access A
B* = ladder access B

Ladder combinations
– Ladder Access A: End Ladder 180/2 (66) and below: Ladder 180/6 (65).
– Ladder access B: 2x Ladder 180/6 (65).

Pre-assembly of ladder

Pre-assemble ladder:
1. Loosen Bolts and Nuts M12 x 40 of the top ladder (66) and remove.
2. Connect both ladders with Bolts and Nuts M12 x 40. (Fig. D3.02)
3. If the bottom ladder is suspended:
   – Loosen Bolts and Nuts M12 x 25 on the ladder hook and remove.
   – Fix ladder hook (70) to Ladder 180/6 (65) at the top using Bolts and Nuts M12 x 25. (Fig. D3.02)
   – Attach the two ladder hooks of the to-be mounted Ladder 180/6 (65) on the rungs of the bottom ladder (65) and pull downwards. (Fig. D3.04)

Visual check of the rungs.
The rungs of both ladders must be positioned at the same height.
(Fig. D3.04)

Ladder Base

Mounting the Ladder Base:
1. Fix Ladder Base to the bottom Ladder 180/6 (65) using Bolts and Nuts M12 x 40.

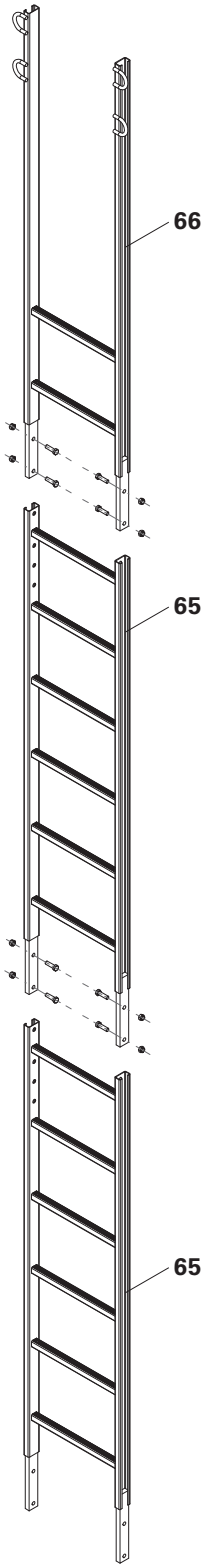


Fig. D3.02

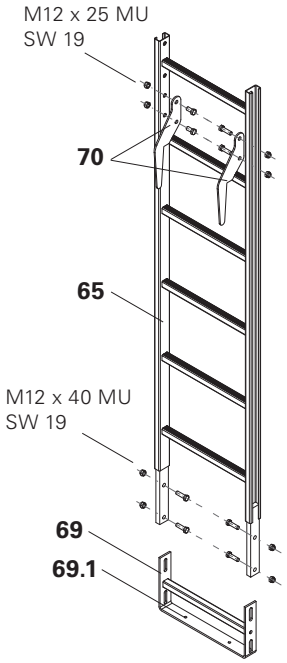


Fig. D3.03

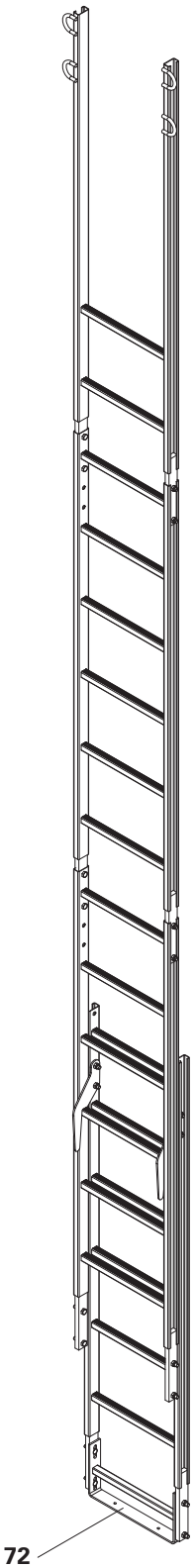


Fig. D3.04

Ladder access

Assembly on the horizontally-positioned formwork half.

Ladder access is also installed for closing the formwork on the second formwork half.
It is without any access possibility.
(Fig. D3.01)

Assembly

1. Place Ladder Connector VARIO (71) on the frame and fix by means of bolts in the element strut. (Fig. D3.05)
2. Pre-assemble ladder:
3. Connect End Ladder 180/2 (66) with Ladder 180/6 (65), M12 x 25 MU, SW 19. Depending on the height, additional Ladders 180/6 are mounted.
4. Mount Ladder Hooks (70) and Ladder Base (69) to the bottom-most ladder, SW 19. (Fig. D3.06)
5. Fix the pre-assembled ladder to the ladder connections by means of clamping plates (65.1), SW 19.
6. Mount Ladder Safety Cage 75/150 with clamping plates according to plan. Depending on the situation, mount with overlapping ladder joints. (Fig. D3.07)

Visual check of the clamping plates.
The contact surface must rest against the ladder profile.

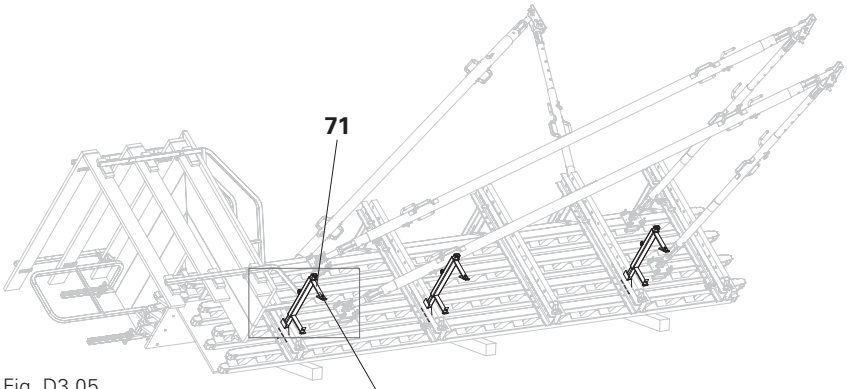


Fig. D3.05

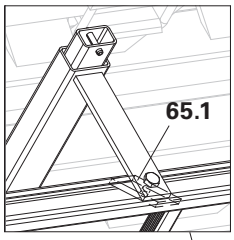
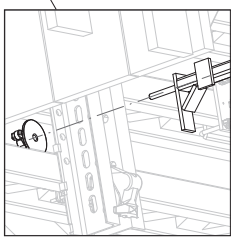


Fig. D3.06a


Fig. D3.05a

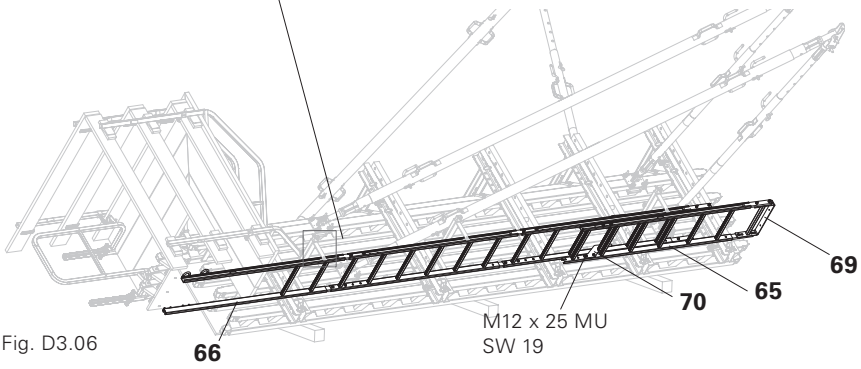


Fig. D3.06

Insertion position

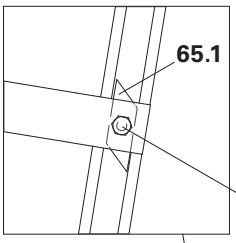


Fig. D3.07a

Clamping position

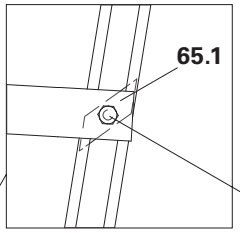
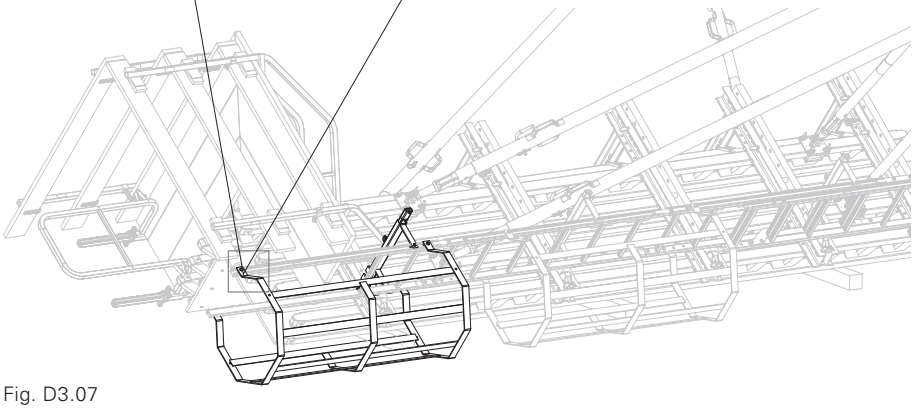


Fig. D3.07b


Fig. D3.07

Column waler

Permissible waler spacing [m] with a fresh concrete pressure of 100 kN/m².

Formwork height H [m]	Waler spacing [m]				
	A	B	C	D	E
2.70	0.46	1.48			
3.00	0.46	1.48			
3.30	0.46	1.18	1.18		
3.60	0.46	1.18	1.48		
3.90	0.46	1.18	1.48		
4.20	0.46	1.18	1.78		
4.50	0.46	1.18	1.78		
4.80	0.31	0.89	1.18	1.48	
5.10	0.31	0.89	1.18	1.78	
5.40	0.31	0.89	0.89	1.18	1.48
5.70	0.31	0.89	0.89	1.18	1.48
6.00	0.31	0.89	0.89	1.18	1.78

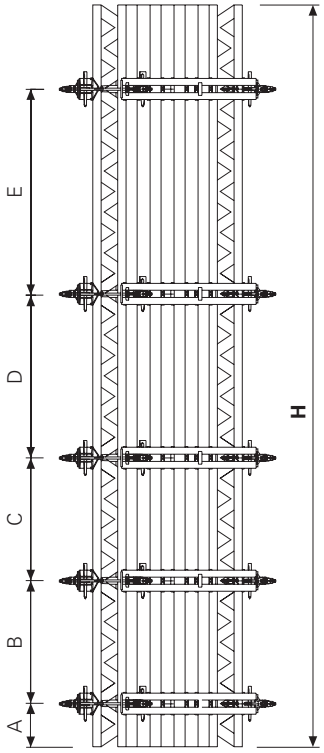
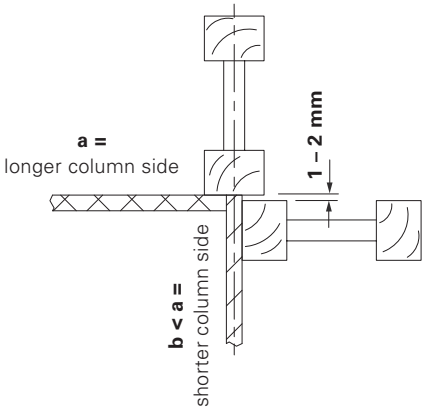


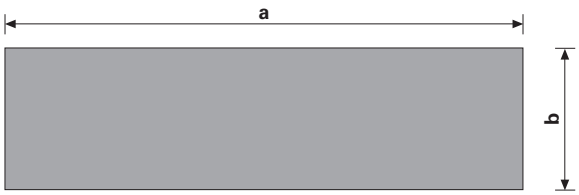
Fig. D3.08

Required GT 24 Girders depending on the column width

Column width [m]	0.20	0.30	0.40	0.50	0.60	0.70	0.76	0.80	0.90	1.00	1.10	1.20
Girders GT 24 per side	2	2	2	3	4	4	4	4	5	5	5	6



Note:
If a ≥ 3 x b, Column Waler SSRZ and Column Waler SVRZ must not be used. The column/shear wall must then be formed like a wall with two sets of stopend formwork.



Permissible waler spacing [m] with a fresh concrete pressure of 100 kN/m².

VARIO column formwork with Column Waler SVRZ 120, U100 in connection with SRU Steel Waler U120 for continuous column cross-sections from 20 x 20 cm to 80 x 120 cm.

Application examples
Girder arrangement: see PERI Design Tables.

With Column Waler SVRZ 120, Item no. 012050 and Steel Waler SRU
For column cross-sections from 20 x 20 cm to 40 x 80 cm.
SRU 97, Item no. 103871.

Fig. D3.09a: example with 20 x 20 cm.
Fig. D3.09b: example with 40 x 80 cm.

Note:
In order to prevent grout loss at the corners, we recommend pre-stressing the tie rod, not only by tightening the tie nut, but also by hammering in the KZ Wedge of the tie yoke.

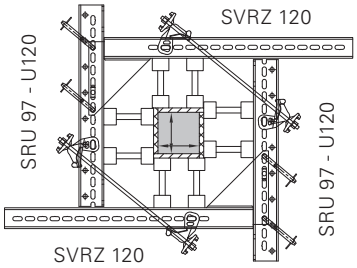


Fig. D3.09a

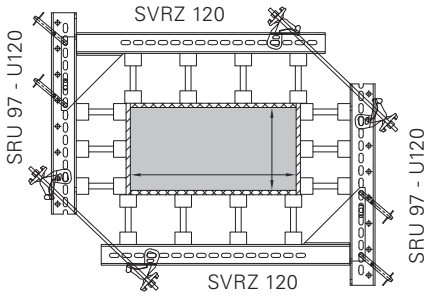


Fig. D3.09b

With Column Waler SVRZ 120, Item no. 012050 and Steel Waler SRU
For column cross-sections from 40 x 80 cm to 70 x 80 cm.
SRU 122, Item no. 103874.

Fig. D3.10: example with 70 x 80 cm.

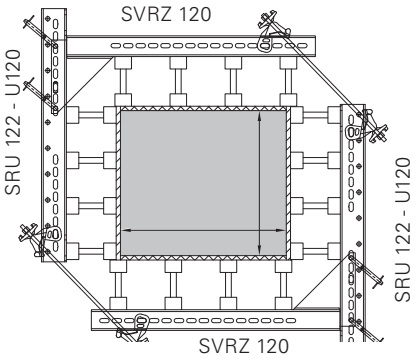


Fig. D3.10

With Column Waler SVRZ 120, Item no. 012050 and Steel Waler SRU
For column cross-sections from 70 x 80 cm to 90 x 80 cm.
SRU 147, Item no. 103877.

Fig. D3.11: example with 90 x 80 cm.

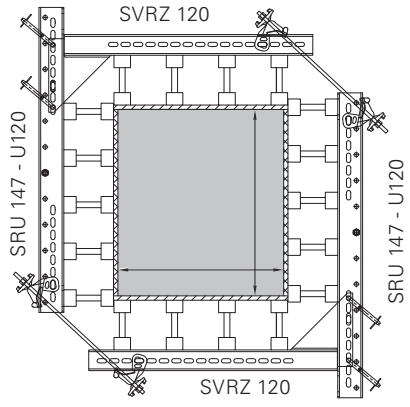


Fig. D3.11

With Column Waler SVRZ 120, Item no. 012050, and Steel Waler SRU
For column cross-sections from 90 x 80 cm to 120 x 80 cm.
SRU 172, Item no. 103886.

Fig. D3.12: example with 120 x 80 cm.

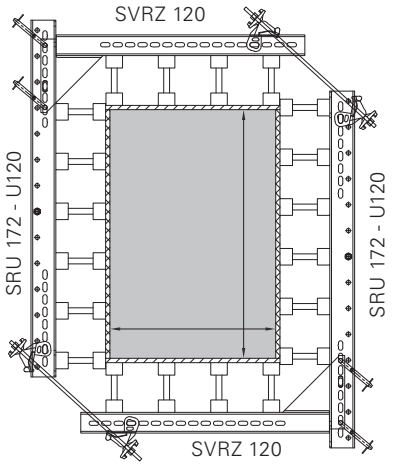


Fig. D3.12

With Column Waler SSRZ 24-97/85, Item no. 012150
For column cross-sections from 24 x 24 cm to 48 x 60 cm.

Fig. D3.13: example with 24 x 24 cm.

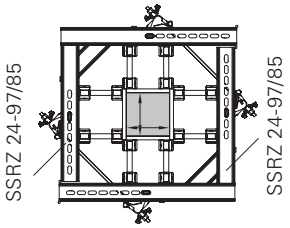


Fig. D3.13

With Column Waler SSRZ 24-113/101, Item no. 012160
For column cross-sections from 40 x 40 cm to 64 x 76 cm.

Fig. D3.14: example with 60 x 70 cm.

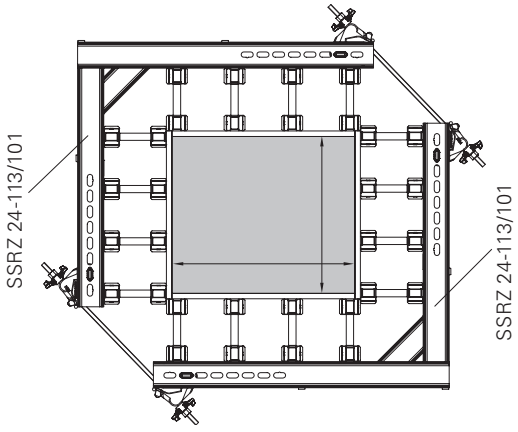
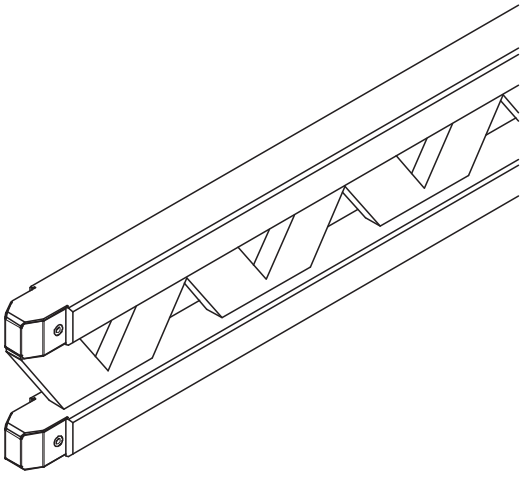
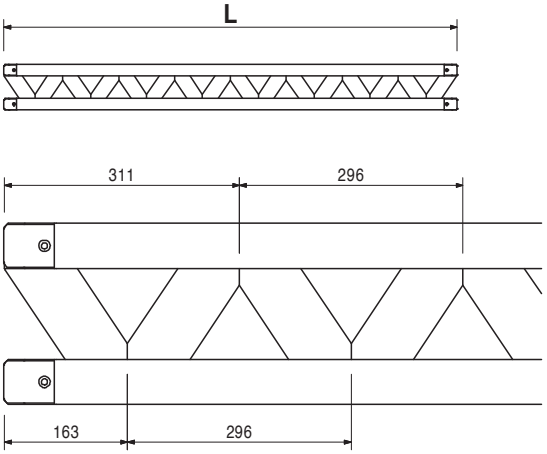


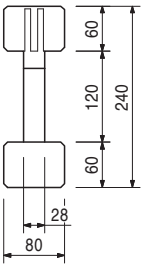
Fig. D3.14

VARIO GT 24 Girder Wall Formwork

Item no.	Weight kg	Girders GT 24	L
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





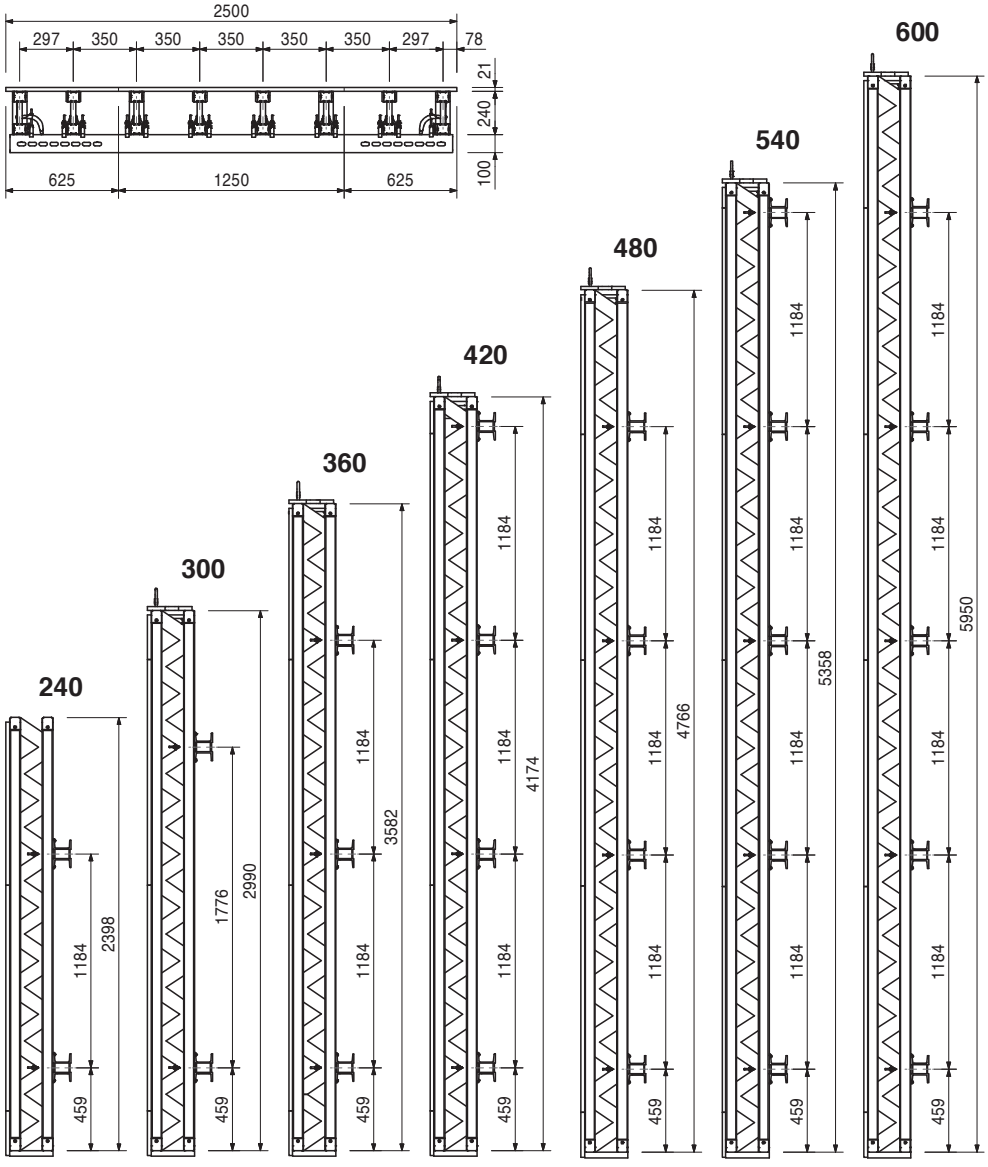


Item no.	Weight kg	
		VARIO Standard Panels S b = 2.50 m
101241	320.000	**VARIO Standard Panel S 250 x 240**
101242	381.000	**VARIO Standard Panel S 250 x 300**
101243	489.000	**VARIO Standard Panel S 250 x 360**
101244	597.000	**VARIO Standard Panel S 250 x 420**
101245	648.000	**VARIO Standard Panel S 250 x 480**
101246	756.000	**VARIO Standard Panel S 250 x 540**
101247	805.000	**VARIO Standard Panel S 250 x 600**

Pre-assembled panels with 21 mm plywood. With Slip Boards, Cover Board and Crane Eyes 24.

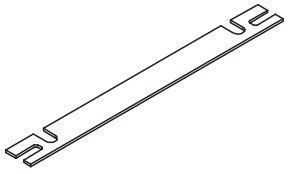
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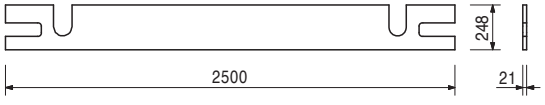
Panel h = 2.40 m, without Cover Board and Crane Eyes 24.
Permissible load-bearing point capacity 700 kg with crane sling angle ≤ 15°.



101311	6.170	**Protection Board 250**

As top covering for VARIO GT 24 standard panels.





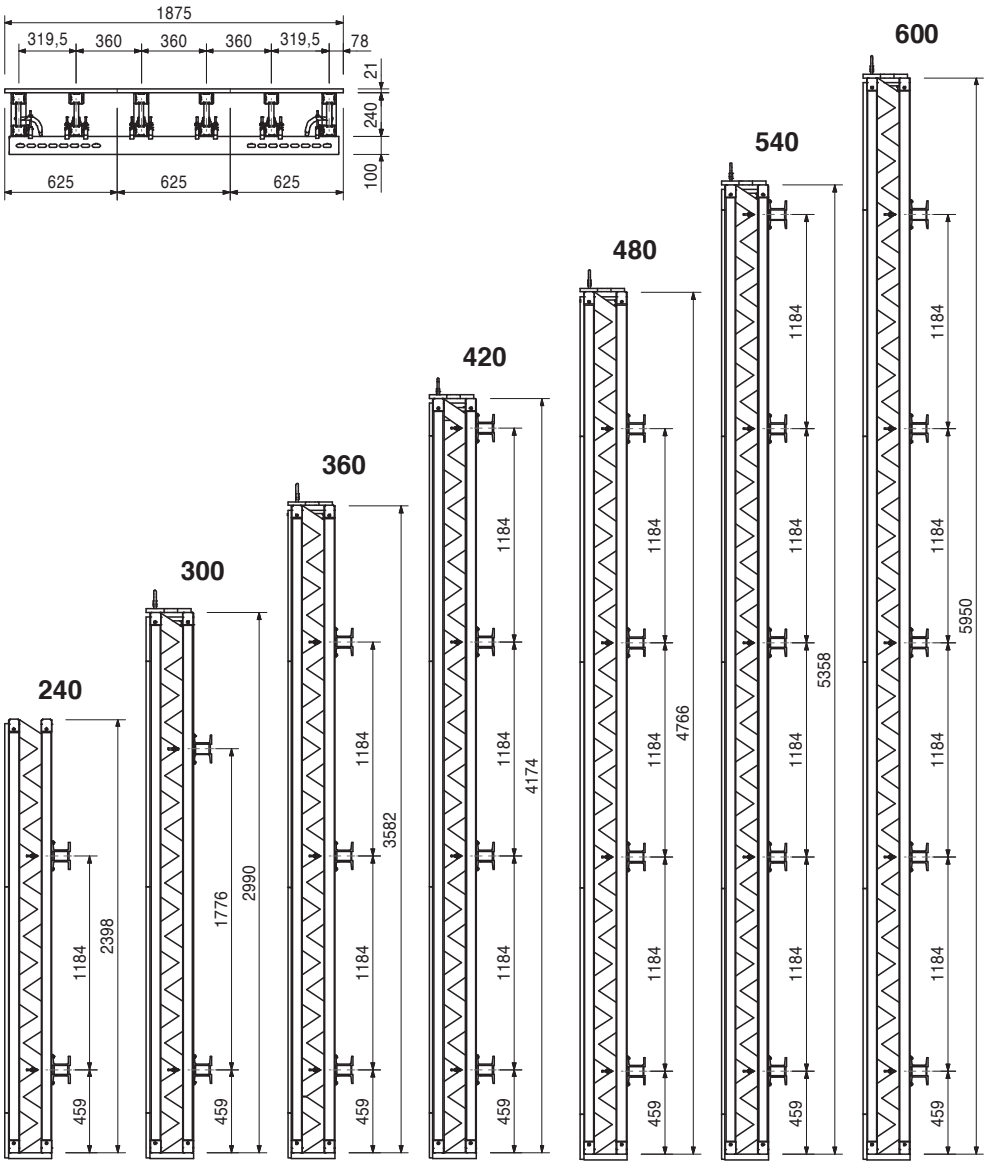
Item no.	Weight kg	
		VARIO Standard Panels S b = 1.875 m
101248	237.000	**VARIO Standard Panel S 187.5 x 240**
101249	284.000	**VARIO Standard Panel S 187.5 x 300**
101250	364.000	**VARIO Standard Panel S 187.5 x 360**
101251	444.000	**VARIO Standard Panel S 187.5 x 420**
101252	481.000	**VARIO Standard Panel S 187.5 x 480**
101253	562.000	**VARIO Standard Panel S 187.5 x 540**
101254	598.000	**VARIO Standard Panel S 187.5 x 600**

Pre-assembled panels with 21 mm plywood. With Slip Boards, Cover Board and Crane Eyes 24.

Note

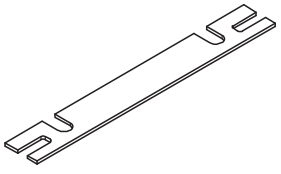
Panel h = 2.40 m, without Cover Board and Crane Eyes 24.

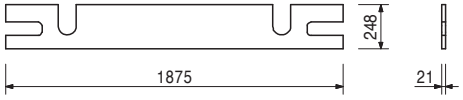
Permissible load-bearing point capacity 700 kg with crane sling angle ≤ 15°.



101318	4.470	**Protection Board 187.5**

As top covering for VARIO GT 24 standard panels.



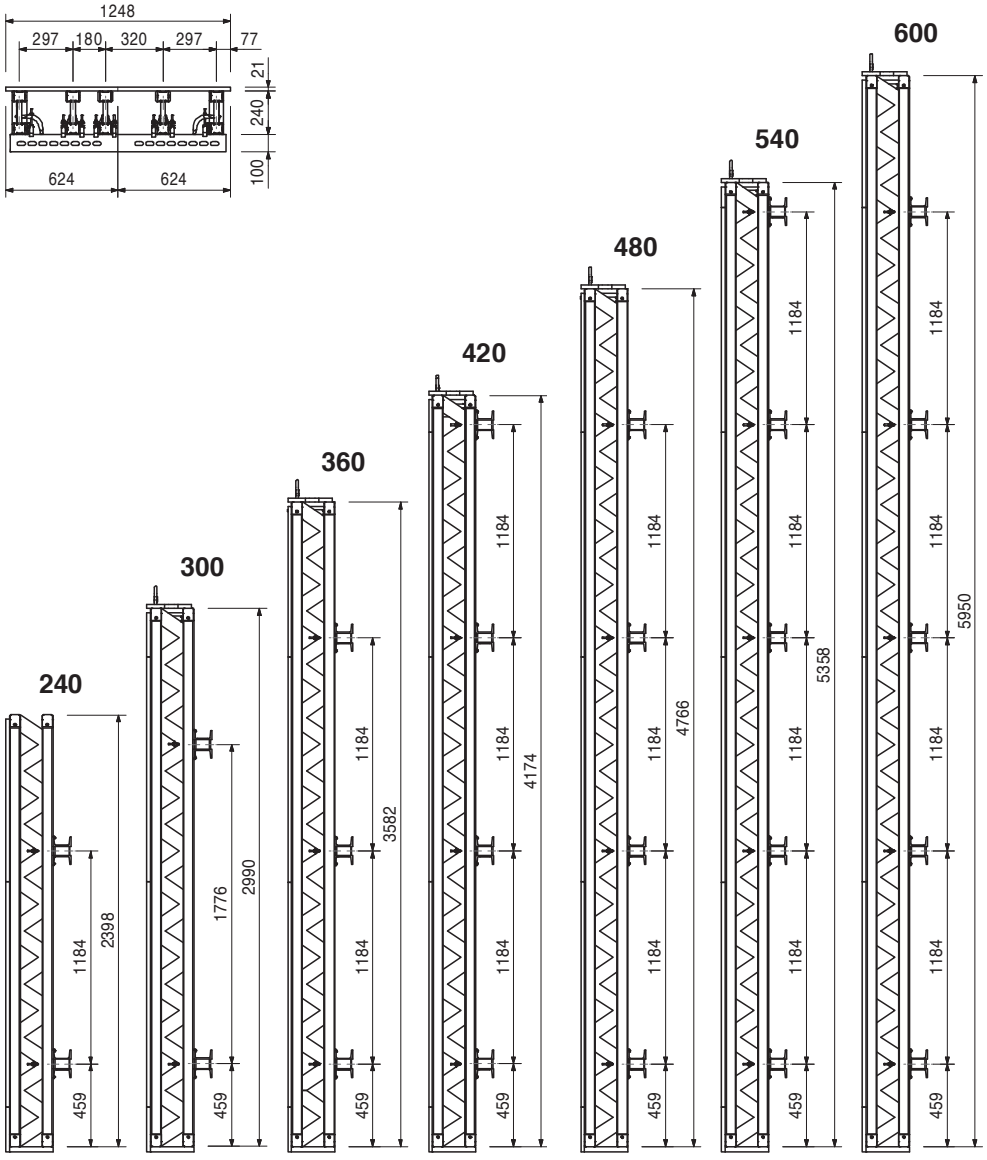


Item no.	Weight kg	
		VARIO Standard Panels S b = 1.25 m
101255	173.000	**VARIO Standard Panel S 125 x 240**
101256	209.000	**VARIO Standard Panel S 125 x 300**
101257	267.000	**VARIO Standard Panel S 125 x 360**
101258	324.000	**VARIO Standard Panel S 125 x 420**
101259	352.000	**VARIO Standard Panel S 125 x 480**
101260	410.000	**VARIO Standard Panel S 125 x 540**
101261	438.000	**VARIO Standard Panel S 125 x 600**

Pre-assembled panels with 21 mm plywood. With Slip Boards, Cover Board and Crane Eyes 24.

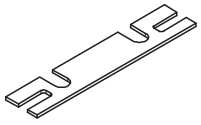
Note

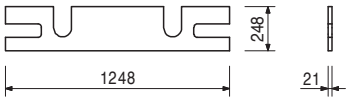
Panel h = 2.40 m, without Cover Board and Crane Eyes 24.
Permissible load-bearing point capacity 700 kg with crane sling angle ≤ 15°.



101319	2.860	**Protection Board 125**

As top covering for VARIO GT 24 standard panels.





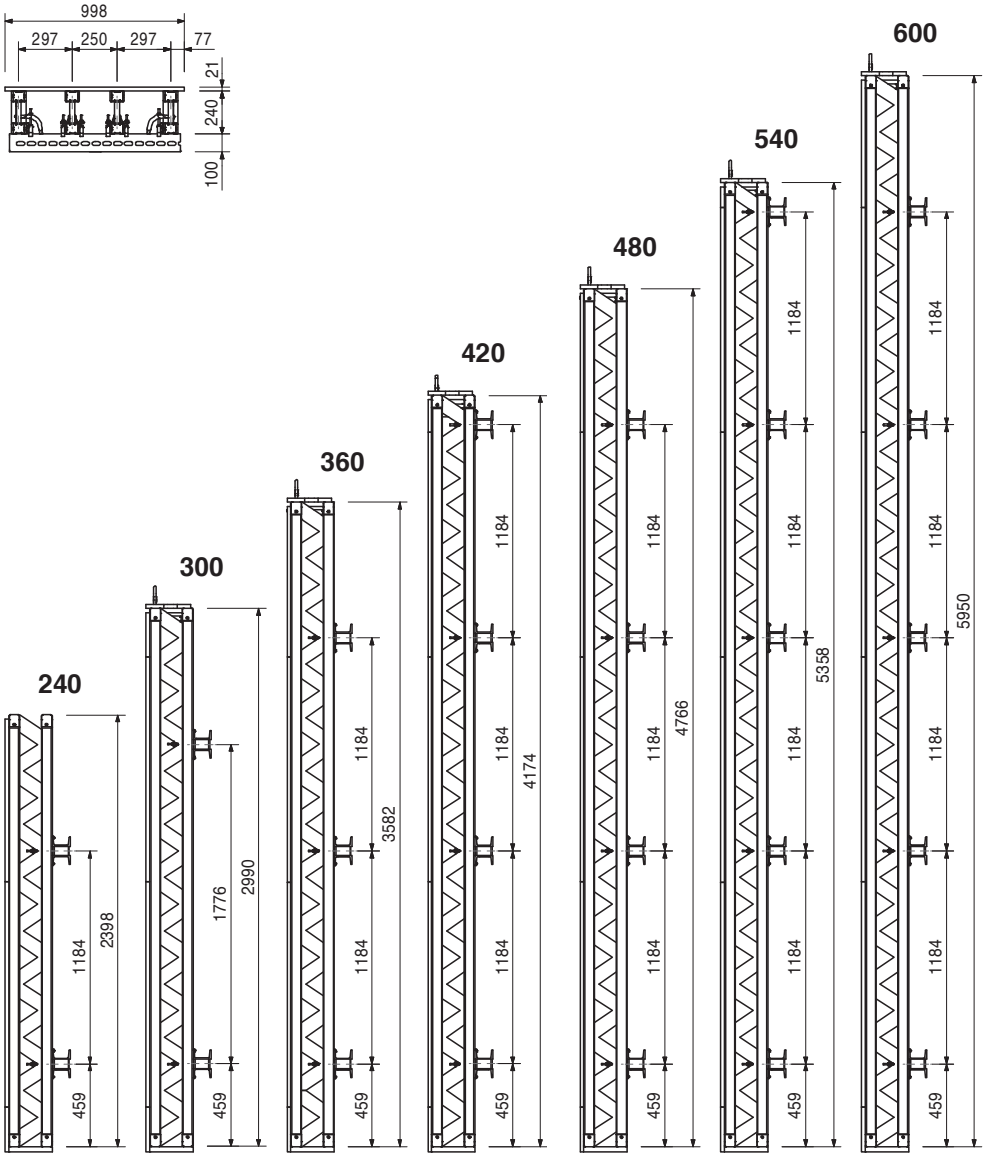
VARIO GT 24 Girder Wall Formwork

Item no.	Weight kg	
		VARIO Standard Panels S b = 1.00 m
101411	138.000	**VARIO Standard Panel S 100 x 240**
101410	168.000	**VARIO Standard Panel S 100 x 300**
101409	214.000	**VARIO Standard Panel S 100 x 360**
101408	260.000	**VARIO Standard Panel S 100 x 420**
101407	283.000	**VARIO Standard Panel S 100 x 480**
101406	329.000	**VARIO Standard Panel S 100 x 540**
101405	351.000	**VARIO Standard Panel S 100 x 600**

Pre-assembled panels with 21 mm plywood. With Slip Boards, Cover Board and Crane Eyes 24.

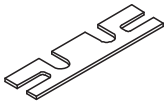
Note

Panel h = 2.40 m, without Cover Board and Crane Eyes 24.
Permissible load-bearing point capacity 700 kg with crane sling angle ≤ 15°.



101404	2.230	**Protection Board 100**

As top covering for VARIO GT 24 standard panels.



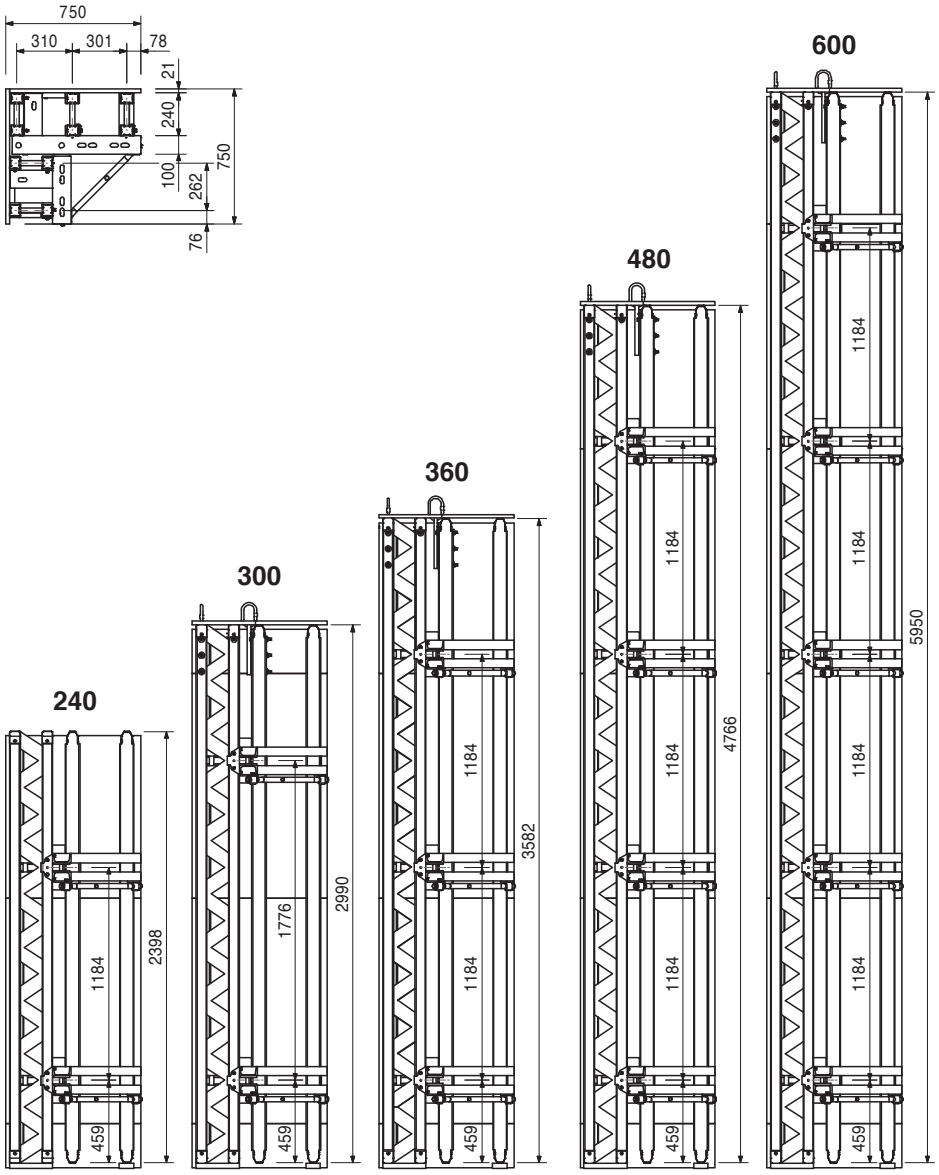


Item no.	Weight kg	
		VARIO Internal Edges S 75/75
101471	211.000	**VARIO Internal Edge S 75/75 x 240**
101470	251.000	**VARIO Internal Edge S 75/75 x 300**
101469	325.000	**VARIO Internal Edge S 75/75 x 360**
101467	429.000	**VARIO Internal Edge S 75/75 x 480**
101465	534.000	**VARIO Internal Edge S 75/75 x 600**

Pre-assembled panels with 21 mm plywood. With Slip Boards, Cover Board and Crane Eyes 24.

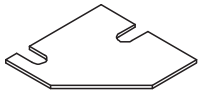
Note

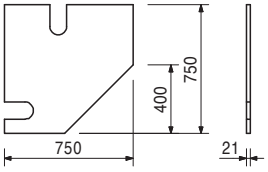
Panel h = 2.40 m, without Cover Board and Crane Eyes 24.
Permissible load-bearing point capacity 700 kg with crane sling angle ≤ 15°.



101464	4.730	**Protection Board IE 75/75**

As top covering for VARIO GT 24 standard panels.

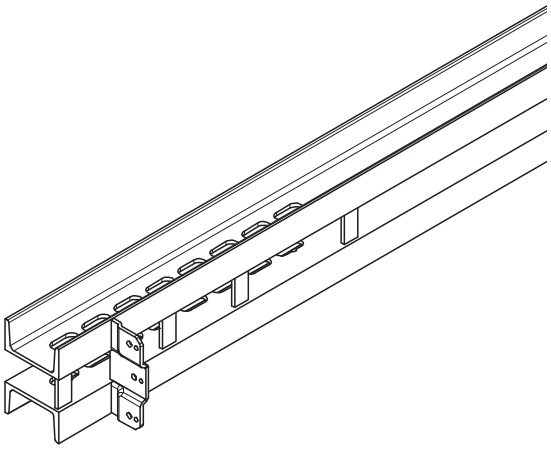


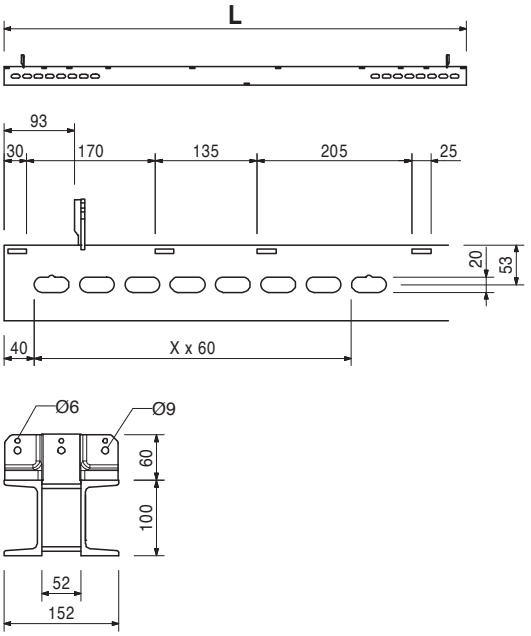


Item no.	Weight kg		L
		Steel Walers SRZ U100	
010600	19.800	**Steel Waler SRZ U100, l = 0.95 m**	950
010030	24.900	**Steel Waler SRZ U100, l = 1.20 m**	1200
010610	30.400	**Steel Waler SRZ U100, l = 1.45 m**	1450
010060	38.300	**Steel Waler SRZ U100, l = 1.825 m**	1825
010070	40.900	**Steel Waler SRZ U100, l = 1.95 m**	1950
010050	51.600	**Steel Waler SRZ U100, l = 2.45 m**	2450
010120	61.500	**Steel Waler SRZ U100, l = 2.95 m**	2950

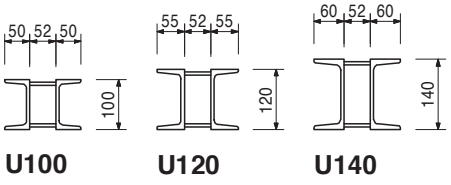
Steel waler for VARIO GT 24 panels and special applications.

Note
Special lengths and other profile sizes on request.
Technical Data
U100: Wy = 82.4 cm³, Iy = 412 cm⁴.



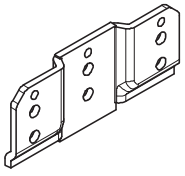


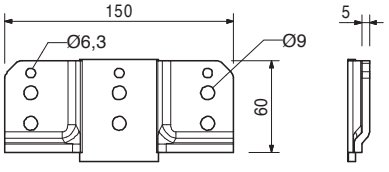
		Steel Walers SRZ spec. length	**Technical Data**
010080	22.000	**Steel Waler SRZ U100 spec. length**	U100: Wy = 82.4 cm³, Iy = 412 cm⁴.
010150	28.000	**Steel Waler SRZ U120 spec. length**	U120: Wy = 121.4 cm³, Iy = 728 cm⁴.
010090	33.000	**Steel Waler SRZ U140 spec. length**	U140: Wy = 172.8 cm³, Iy = 1210 cm⁴.
010350	0.000	**Additional Row of SRZ Slots**	



710001	0.370	**End Plate SRZ**

For Steel waler SRZ with special lengths.

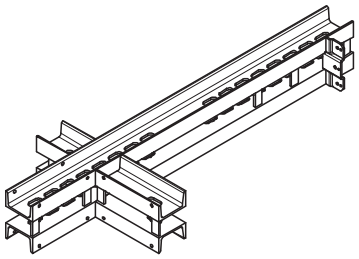


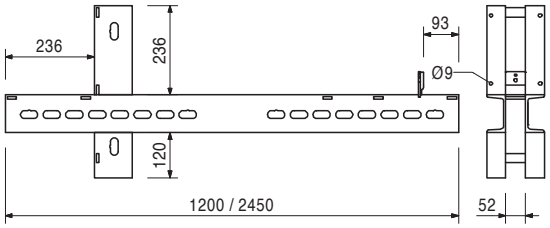


Item no.	Weight kg	
		Steel Walers VSRZ
010440	32.100	**Steel Waler VSRZ-24 U100, l = 1.20/12**
010420	58.800	**Steel Waler VSRZ-24 U100, l = 2.45/12**
010490	0.000	**Welding Unit for VSRZ/12**
010500	0.000	**Welding Unit for VSRZ**

Steel waler for VARIO GT 24 corner panels and special applications.

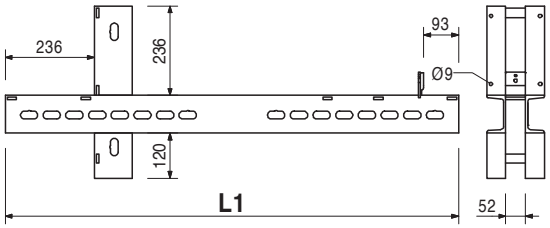
Note
Special lengths and other profile sizes on request.
Technical Data
Wy = 82.4 cm³, Iy = 412 cm⁴.





		VARIO Walers VSRZ, spec. lenght
010240	22.000	**VARIO Waler U100 VSRZ, spec. lenght**
010430	28.000	**VARIO Waler U120 VSRZ, spec. lenght**
010250	33.000	**VARIO Waler U140 VSRZ, spec. lenght**

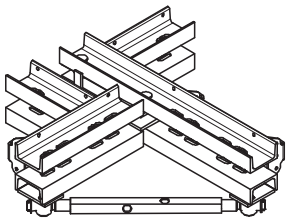
Note
When ordering, state dimensions L1.
Technical Data
U100: Wy = 82.4 cm³, Iy = 412 cm⁴.
U120: Wy = 121.4 cm³, Iy = 728 cm⁴.
U140: Wy = 172.8 cm³, Iy = 1210 cm⁴.

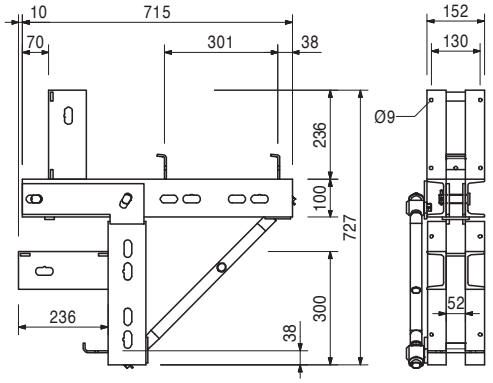


010200	42.300	**Internal Corner Waler IRZ 75/75**

Steel waler for VARIO GT 24 corner panel 75 x 75 cm. Allows easy striking.

Technical Data
Wy = 82.4 cm³, Iy = 412 cm⁴.

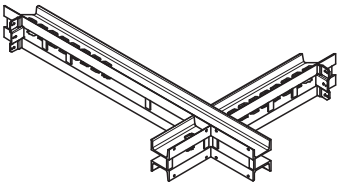


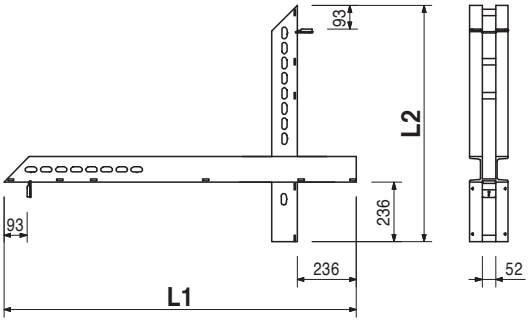


Item no.	Weight kg	
		Cross Walers KRZ spec. length
010180	22.000	**Cross Waler KRZ U100, spec. length**
010270	28.000	**Cross Waler KRZ U120, spec. length**
010190	33.000	**Cross Waler KRZ U140, spec. length**
010400	0.000	**Welding Unit for KRZ**

Steel waler for VARIO GT 24 panels for narrow lift shafts.

Note
When ordering, state dimensions L1 and L2.
Technical Data
U100: Wy = 82.4 cm³, Iy = 412 cm⁴.
U120: Wy = 121.4 cm³, Iy = 728 cm⁴.
U140: Wy = 172.8 cm³, Iy = 1210 cm⁴.

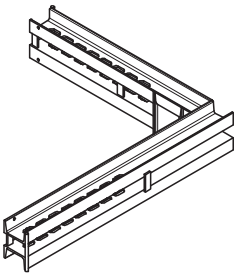


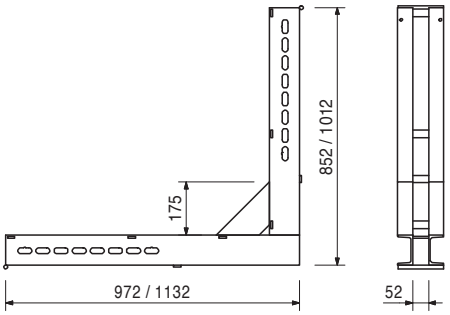


		Column Walers SSRZ-24 U100
012150	38.700	**Column Waler SSRZ-24 U100, l = 0.97/0.85 m**
012160	45.700	**Column Waler SSRZ-24 U100, l = 1.13/1.01 m**

For continuously adjustable column cross-sections 24 x 24 cm up to 48 x 60 cm or 40 x 40 cm up to 64 x 76 cm. Profile U100.

Note
Special lengths and other profile sizes available on request.

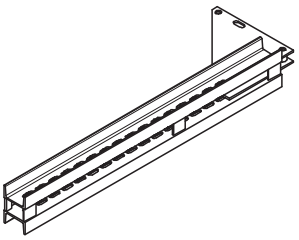


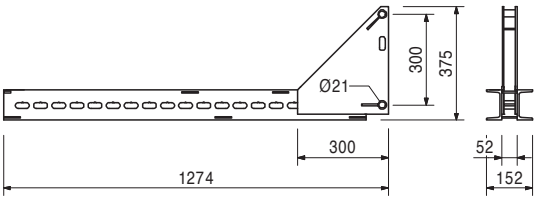


012050	31.300	**Column VARIO Waler SVRZ U100, l = 1.20 m**

For continuously adjustable column cross-sections up to 80 x 120 cm in connection with Steel Waler SRU. Profile U100.

Note
Special lengths and other profile sizes available on request.





Accessories

103871	24.200	**Steel Waler Universal SRU U120, l = 0.97 m**
103874	30.900	**Steel Waler Universal SRU U120, l = 1.22 m**
103877	38.100	**Steel Waler Universal SRU U120, l = 1.47 m**
103886	44.700	**Steel Waler Universal SRU U120, l = 1.72 m**
037160	0.736	**Bolt Ø 20 x 205, galv.**
024240	0.805	**Wedge KZ, galv.**

Item no.	Weight kg	Steel Walers Universal SRU	L
103868	18.100	**Steel Waler Universal SRU U120, l = 0.72 m**	722
103871	24.200	**Steel Waler Universal SRU U120, l = 0.97 m**	972
103874	30.900	**Steel Waler Universal SRU U120, l = 1.22 m**	1222
103877	38.100	**Steel Waler Universal SRU U120, l = 1.47 m**	1472
103886	44.700	**Steel Waler Universal SRU U120, l = 1.72 m**	1722
103889	52.000	**Steel Waler Universal SRU U120, l = 1.97 m**	1972
103898	58.600	**Steel Waler Universal SRU U120, l = 2.22 m**	2222
103892	65.600	**Steel Waler Universal SRU U120, l = 2.47 m**	2472
103929	72.000	**Steel Waler Universal SRU U120, l = 2.72 m**	2722
103903	81.000	**Steel Waler Universal SRU U120, l = 2.97 m**	2972
103906	92.600	**Steel Waler Universal SRU U120, l = 3.47 m**	3472
103915	106.000	**Steel Waler Universal SRU U120, l = 3.97 m**	3972
103918	119.000	**Steel Waler Universal SRU U120, l = 4.47 m**	4472
103922	135.000	**Steel Waler Universal SRU U120, l = 4.97 m**	4972
103925	146.000	**Steel Waler Universal SRU U120, l = 5.47 m**	5472
103928	159.000	**Steel Waler Universal SRU U120, l = 5.97 m**	5972

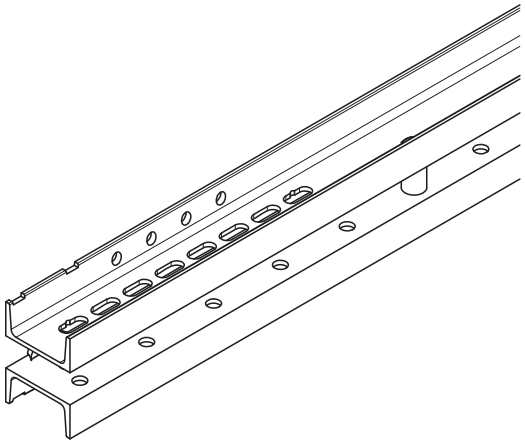
Universal steel waler profile U120 used as waling for girder wall formwork and for diverse special applications. With adjustable spacers.

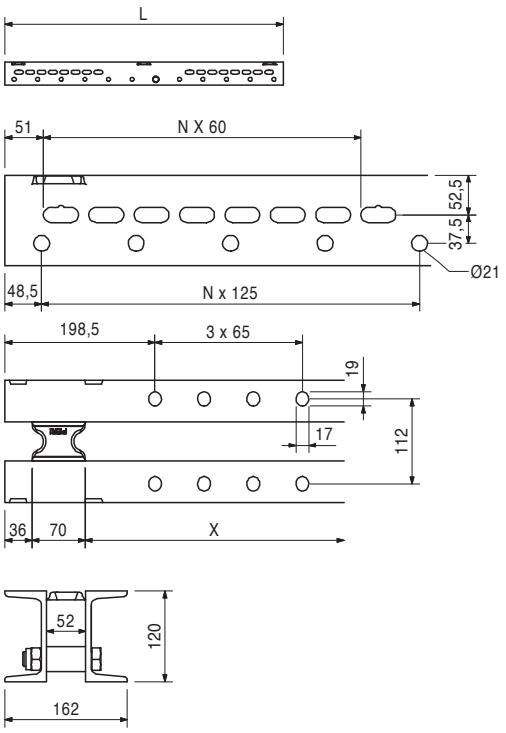
Note

Permissible load: see PERI Design Tables.

Technical Data

U120: Wy = 121.4 cm³, Iy = 728 cm⁴.

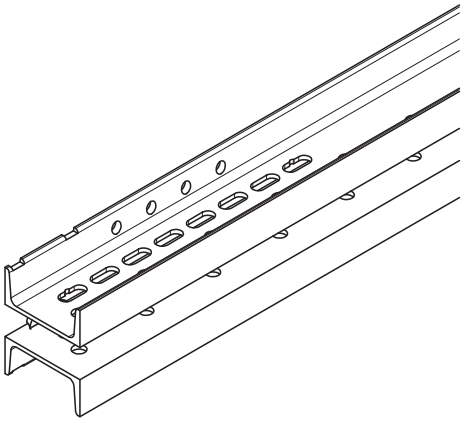


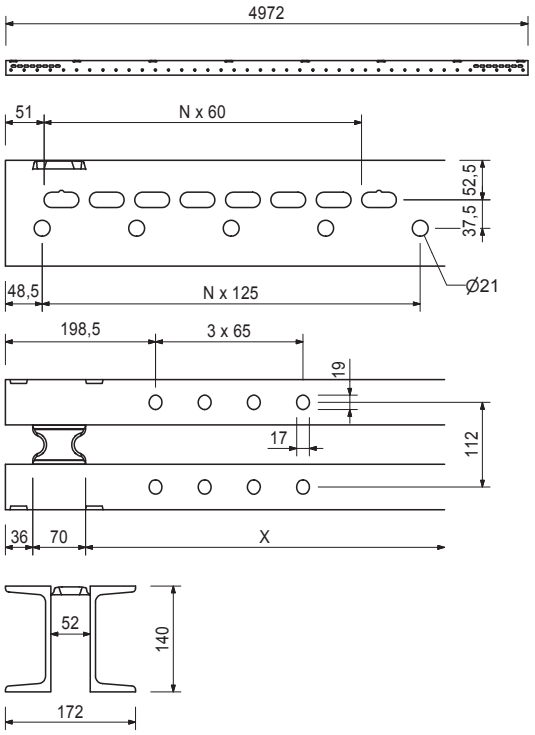


Item no.	Weight kg
103943	157.000

Steel Waler Universal SRU U140, l = 4.97 m
Universal steel waler profile U140 used as waling for girder wall formwork and for diverse special applications. With adjustable spacers.

Note
Permissible load: see PERI Design Tables.
Technical Data
U140: Wy = 172.8 cm³, Iy = 1210 cm⁴.

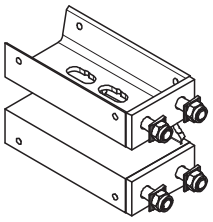


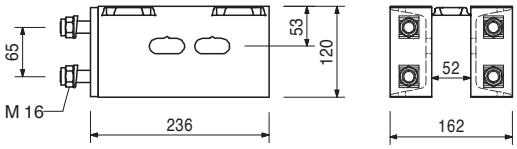


104027	7.610

Extension VARIO 24 U120
For assembly on Steel Waler SRU.

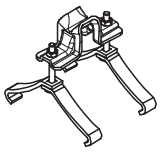
Complete with
4 pc. 710252 Bolt ISO 4017 M16 x 50-8.8, galv.
4 pc. 070890 Nut ISO 7040 M16-8, galv.
4 pc. 710880 Washer DIN 434 18, galv.
Technical Data
U120: Wy = 121.4 cm³, Iy = 728 cm⁴.

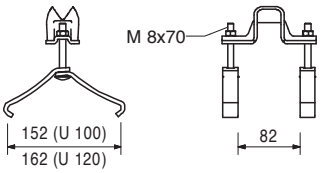




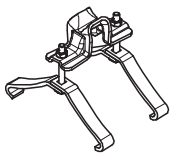
024070	0.691

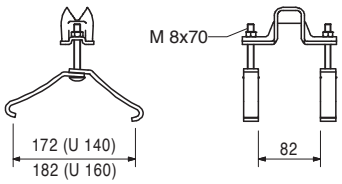
Hook Strap HB 24-100/120, galv.
For fixing GT 24 Girders to Steel Walers SRZ, SRU and BR: U100 – U120.





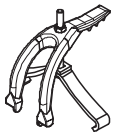
Item no.	Weight kg	
024080	0.735	**Hook Strap HB 24-140/160, galv.** For fixing GT 24 Girders to Steel Walers SRZ, SRU and BR: U140 – U160.

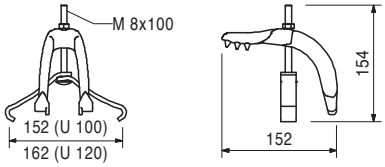




		Accessories Hook Straps HB
071218	0.000	**Screw Change HB, incl. Screws**
126228	0.030	**F.H. Bolt DIN 603 M8 x 70 MU, galv.**
710240	0.050	**F.H. Bolt DIN 603 M8 x 100 MU, galv.**
024090	0.005	**Nut ISO 4032 M8-8, galv.**

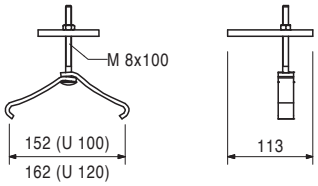
024600	0.907	**Girder Claw HB** For mounting the GT 24 Edge Girder on the Steel Waler SRZ and SRU Profile U100 – U120.





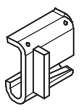
024630	0.742	**Fix Strap U100 – U120, galv.** For fixing the GT 24 Girder in the VARIO corner.

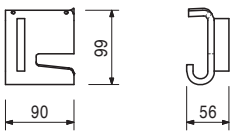




024640	0.923	**Quick Str. Hook Strap 24-100/140, galv.** For fixing GT 24 Girders to Steel Waler SRZ, SRU, Profile U100 – U140 outside of the girder nodes.

Note
Girders fixed in position with the Quick Strap must be specially screwed to the formlining when using crane lifting gears.

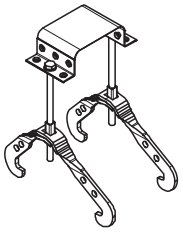


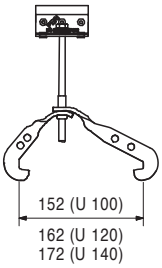


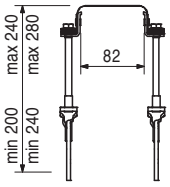
Item no.	Weight kg	
		Hook Straps Uni HBU
104931	0.865	**Hook Strap Uni HBU 20-24**
103845	0.893	**Hook Strap Uni HBU 24-28**

For fixing GT 24 Girders or VT 20 Girders to Steel Walers SRZ and 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.







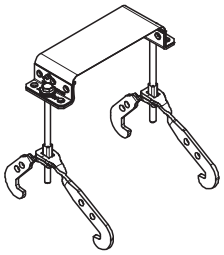
Accessories

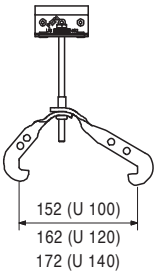
024540	0.005	**TSS-Torx 6 x 40, galv.**

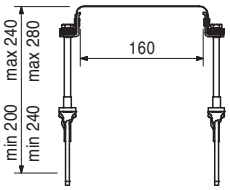
		Hook Straps Uni Double HBUD
104930	0.887	**Hook Strap Uni Double HBUD 20-24**
104096	0.912	**Hook Strap Uni Double HBUD 24-28**

For fixing two GT 24 Girders or VT 20K Girders to SRZ steel walers and 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.



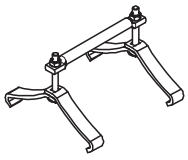


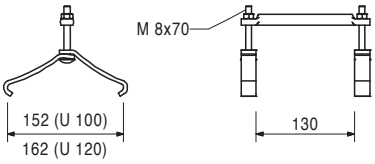


		Accessories Hook Straps HBU, HBUD
071219	0.000	**Screw Change HBU, HBUD**
104929	0.050	**Bolt ISO 4014 M8 x 150-8.8, galv.**
107185	0.060	**Bolt ISO 4014 M8 x 180-8.8, galv.**
103518	0.060	**Bolt ISO 4014 M8 x 190-8.8, galv.**
103844	0.013	**Sleeve HBU/HBUD, galv.**

024860	0.616	**Hook Strap HB 24 QB 150, galv.**

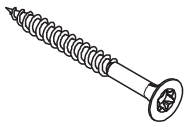
For fixing GT 24 Girders independent from girder node and timber beams to Steel Walers SRZ, SRU and BR: U100 – U120.

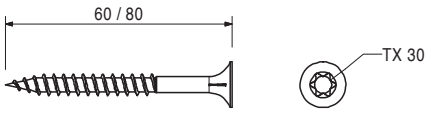




Item no.	Weight kg	
		TSS-Torxs, galv.
024470	0.008	**TSS-Torx 6 x 60, galv.**
024690	0.008	**TSS-Torx 6 x 80, galv.**

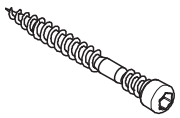
For Torx Blade TX 30. Self-drilling.

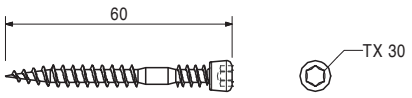




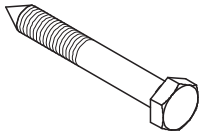
110272	0.006	**TSS-Torx 6 x 60, ZKS, galv.**

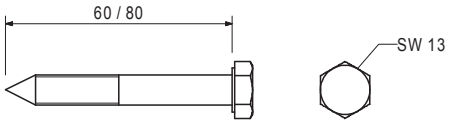
For Torx Blade TX 30. Self-drilling.





		Lag Screws DIN 571, galv.
024270	0.023	**Lag Screw DIN 571 8 x 60, galv.**
024260	0.027	**Lag Screw DIN 571 8 x 80, galv.**





128013	2.100	**Cordless Combi Drill ABS 18**

Universal power screwdriver with continuous electronic speed control and clockwise/anti-clockwise rotation. Including 2 batteries and a battery charger in case.

Note
Follow Instructions for Use!



Accessories

072220	0.400	**Bit Holder for SCU 7-9**
072140	0.005	**Bit Point TX 30**
128016	0.760	**Replacement Battery Li-Ion 18V**

		Accessories Cordless Combi Drill ABS 18
072220	0.400	**Bit Holder for SCU 7-9**
072140	0.005	**Bit Point TX 30**

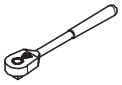
Item no.	Weight kg		
128011	1.800	**Cordless Impact Screwdriver ASCD 18-W2** Light weight electric power wrench for moment-free working, with clockwise/anti-clockwise rotation and 1/2 square drive. Including 2 batteries and a battery charger in case.	**Note** Follow Instructions for Use!

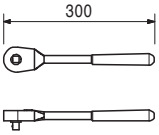


128016	0.760	**Replacement Battery Li-Ion 18V** For use with Cordless Combi Drill ABS 18 and Cordless Impact Screwdriver ASCD 18-W2.	**Note** Follow Instructions for Use! **Technical Data** Capacity 4 Ah.

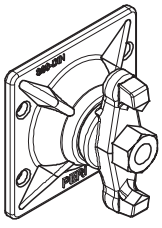


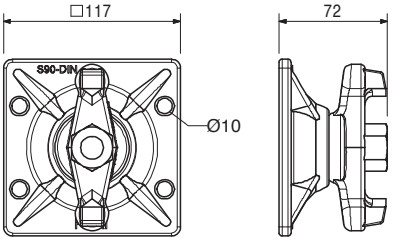
072180	0.560	**Ratchet Wrench 1/2"**	



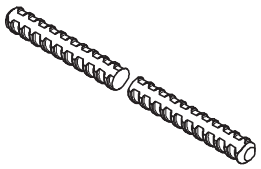


030370	1.660	**Wingnut Pivot Plate DW 15, galv.** For anchoring with Tie Rod DW 15 and B 15. With pivoting captive nut. Maximum angle of tilting 8°.	**Note** Wrench size SW 27. **Technical Data** Permissible load 90 kN.



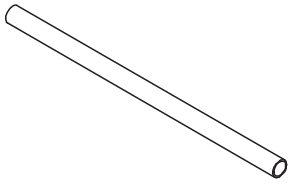


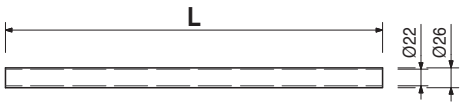
Item no.	Weight kg		
		Tie Rod DW 15	**Note**
030030	1.440	**Tie Rod DW 15, spec. length**	Non-weldable! Take official approval into consideration!
030050	0.000	**Cutting Cost Tie Rod DW 15, B 15**	**Technical Data** Permissible tension force 90 kN.



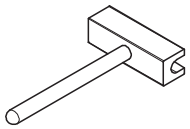


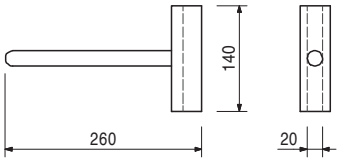
065027	0.359	**Spacer Tube rough DR 22, l = 2.00 m** Plastic Spacer Tube for DW 15, B 15.	





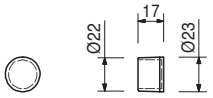
031050	1.780	**Tie Rod Wrench 20, galv.** For easy handling of Tie Rod DW 20.	





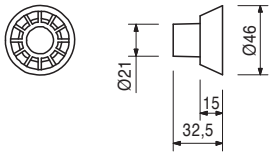
065036	0.002	**Plug DR 22** Plastic. Suitable for Spacer Tube DR 22.	**Note** Delivery unit 1000 pieces.





065033	0.010	**Cone DR 22** Plastic. Suitable for Spacer Tube DR 22.	**Note** Delivery unit 500 pieces.

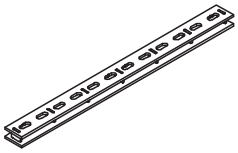


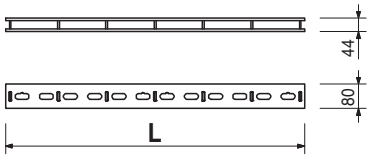


Item no.	Weight kg		L
		Couplings VKZ	
013010	9.000	**Coupling VKZ 99**	990
013020	13.300	**Coupling VKZ 147**	1470
013030	19.100	**Coupling VKZ 211**	2110
013080	9.000	**Coupling VKZ spec. length**	

For connection of SRZ and SRU Steel Walers.

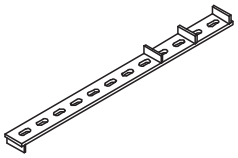
Technical Data
Wy = 17.1 cm³, Iy = 68.3 cm⁴.

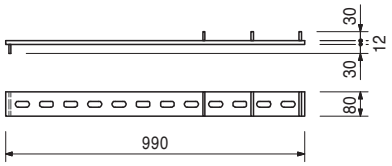




101395	7.110	**Offset Coupling VVKZ 3/99**

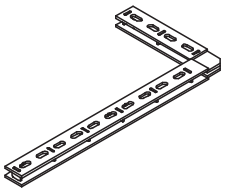
For connecting extended and non-extended VARIO panels above the extension.

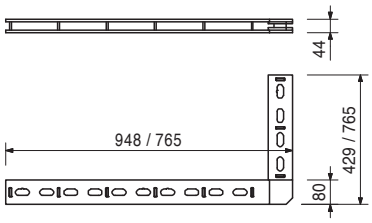




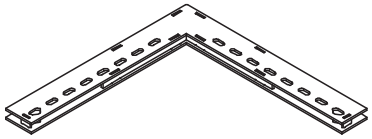
		Corner Couplings EKZ
013140	11.900	**Corner Coupling EKZ 95/43**
013130	13.300	**Corner Coupling EKZ 76/76**
103938	8.850	**Corner Coupling EKZ 47/43**
013180	9.000	**Corner Coupling EKZ spec. length**

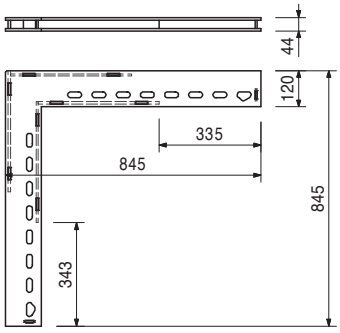
For continuously variable tight (tension and compression) connection of SRZ and SRU Steel Walers.



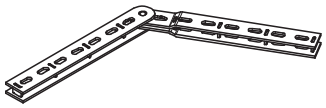


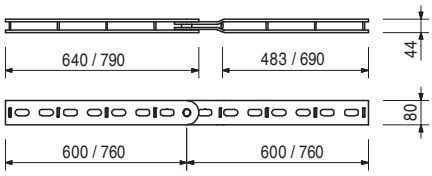
Item no.	Weight kg	
103850	24.700	**Outside Corner Coupling AKZ 85/85** For providing tensile and compression-proof connections of Steel Walers SRZ and SRU on external corners.



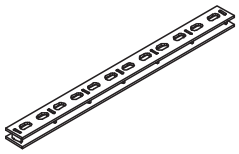


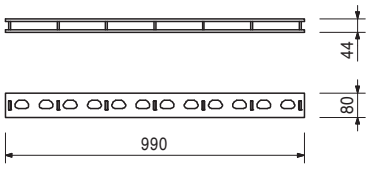
		Articulated Couplings GKZ
013220	11.500	**Articulated Coupling GKZ 60/60**
013210	14.400	**Articulated Coupling GKZ 76/76**
013230	9.000	**Articulated Coupling GKZ spec. length** For continuously variable tight (tension and compression) connection of SRZ and SRU Steel Walers with oblique angles more than 48°.





102825	8.610	**VARIO Coupling Concrete Finish VKS 99** For connecting VARIO GT 24 panels. Allows compensation of up to max. 5 mm panel offsets.

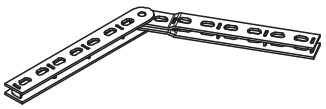


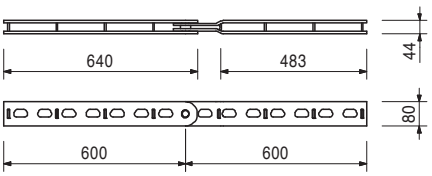


Accessories

102945	2.070	**VARIO Alignment Clamp VRS**

Item no.	Weight kg	
103054	11.200	**Articulated Coupling GKS 60/60 S** For connecting VARIO GT 24 panels. Allows compensation of up to max. 5 mm panel offsets.



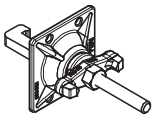


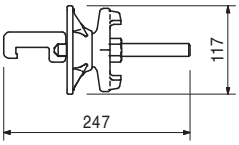
Accessories

102945	2.070	**VARIO Alignment Clamp VRS**

102945	2.070	**VARIO Alignment Clamp VRS** In connection with Coupling VKS 99 or Articulated Coupling GKS 60/60. For compensating maximum 5 mm element offset.

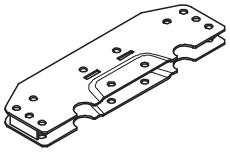
Complete with
1 pc. 030370 Wingnut Pivot Plate DW 15, galv.

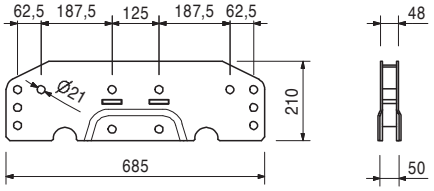




103737	10.800	**Universal Coupling UK 70** For a rigid connection of Steel Walers SRU and for connecting Heavy-Duty Spindles SLS.

Note
Permissible load: see PERI Design Tables.

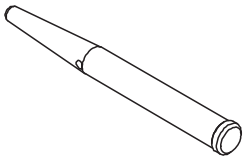


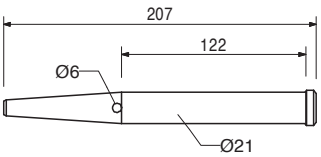


Accessories

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

104031	0.462	**Fitting Pin Ø 21 x 120** For different connections.





Accessories

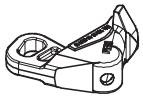
018060	0.030	**Cotter Pin 4/1, galv.**

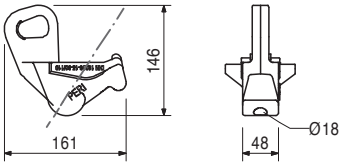
Item no.	Weight kg	
018060	0.030	**Cotter Pin 4/1, galv.**





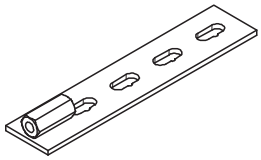
024210	2.180	**Tie Yoke SKZ** For tensioning on external corners with Steel Waler SRZ, SRU, U100 – U140 and VARIO couplings.

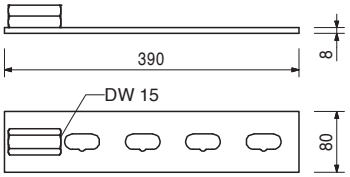




013240	2.100	**Stopend Tie** For assembling stopend formwork with VARIO GT 24.

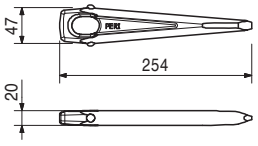
Technical Data
Permissible tension force 30.0 kN.



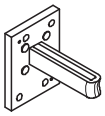


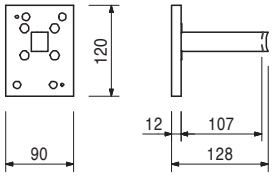
024240	0.805	**Wedge KZ, galv.** For connecting panels with VARIO Couplings or Tie Yoke SKZ.





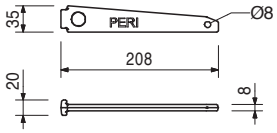
Item no.	Weight kg	
024220	1.230	**Coupling Compression Plate KDP** For mounting girders to VARIO Couplings in infill areas.



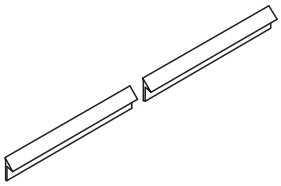


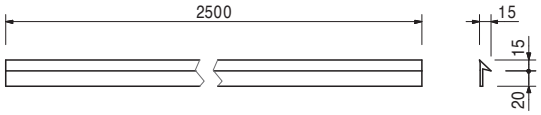
024250	0.331	**Wedge K, galv.** For coupling Compression Plate KDP, Wedge Head Piece SRZ/SRU and Waler Connector SB-A, B, C.



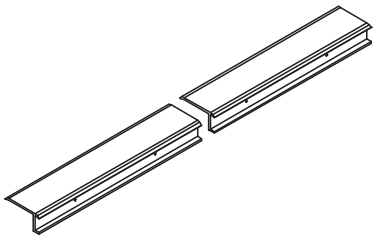


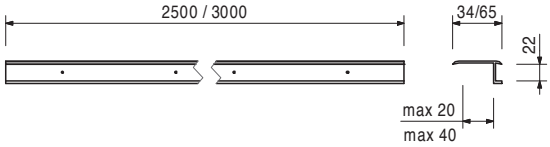
031200	0.470	**Chamfer Strip with Flange, l = 2.50 m**





		Formwork Joints
030260	0.500	**Formwork Joint 21/20, l = 2.50 m**
101706	1.230	**Formwork Joint 21/40, l = 3.00 m**
		Plastic profile strip for easier striking of shafts.

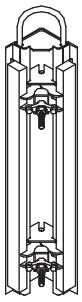


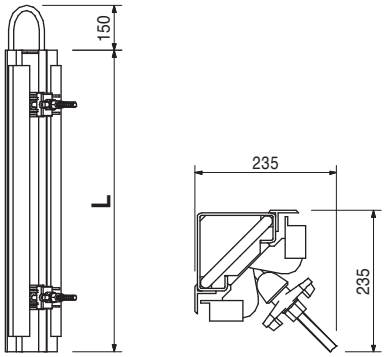


Item no.	Weight kg		L
		Quick Release Corners SSE	
025200	32.200	**Quick Release Corner SSE 1.0 m**	1000
025210	70.000	**Quick Release Corner SSE 2.0 m**	2000
025220	105.000	**Quick Release Corner SSE 3.0 m**	3000
025230	140.000	**Quick Release Corner SSE 4.0 m**	4000
025240	180.000	**Quick Release Corner SSE 5.0 m**	5000
025250	35.000	**Quick Release Corner SSE spec. length**	

For easier striking of shaft internal formwork. We recommend removing the shaft corner immediately after concreting.

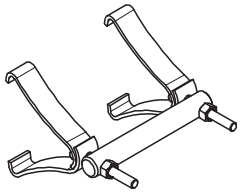
Note
Formlining size is 15 cm shorter than the dimension of the concrete.

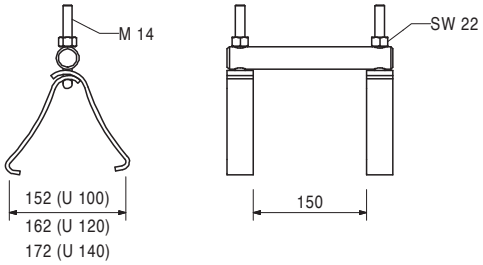




027590	2.400	**Hook Strap for SB-1, 2**

For fixing Brace Frame SB-1 and SB-2 to Steel Waler SRZ and SRU Profile U100 – U140.



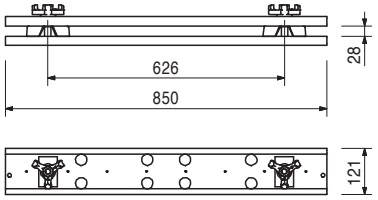


024480	7.040	**Extension Splice 24-2**

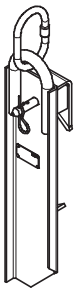
For extending GT 24 girders and VARIO GT 24 panels up to max. height of 8.00 m.

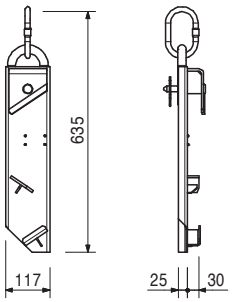
Complete with
2 pc. 030190 Three Wingnut DW 15, galv.
Note
Permissible load: see PERI Design Tables.



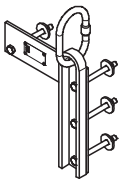


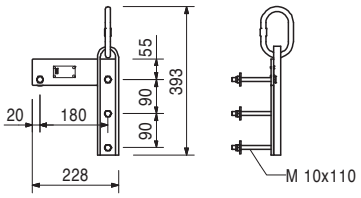
Item no.	Weight kg		
070760	4.650	**Crane Splice GT 24** For transporting elements by crane with the GT 24 girder.	**Complete with** 1 pc. 018050 Pin Ø 16 x 65/86, galv. 1 pc. 018060 Cotter Pin 4/1, galv. **Note** Follow Instructions for Use! **Technical Data** Permissible load-bearing capacity 700 kg with crane sling angle ≤ 15°.



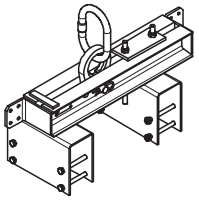


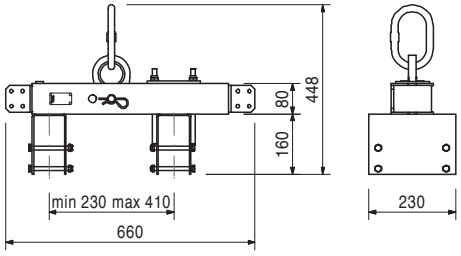
		Crane Eyes 24	**Complete with**
021990	2.780	**Crane Eye 24, right**	4 pc. 710138 Bolt ISO 4014 M10 x 110-8.8, galv.
021980	2.780	**Crane Eye 24, left**	4 pc. 780356 Nut ISO 7042 M10-8, galv.
		For transporting elements by crane with the GT 24 girder. Mounted securely to the element.	4 pc. 710139 Washer R11 DIN 440, galv. **Note** Illustration shows Crane Eye 24, left. Follow Instructions for Use! **Technical Data** Permissible load-bearing capacity 700 kg with crane sling angle ≤ 15°.





111238	19.800	**Crane Hook 2 t / GT 24** For transporting elements by crane with the GT 24 Girder. Adjustable from 230 to 410 mm.	**Complete with** 1 pc. 018060 Cotter Pin 4/1, galv. 8 pc. 710138 Bolt ISO 4014 M10 x 110-8.8, galv. 8 pc. 780356 Nut ISO 7042 M10-8, galv. **Note** Follow Instructions for Use! **Technical Data** Permissible load-bearing capacity 2.0 t with crane sling angle ≤ 30°.

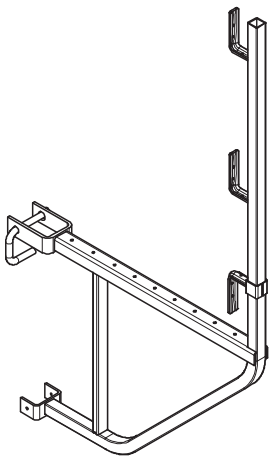


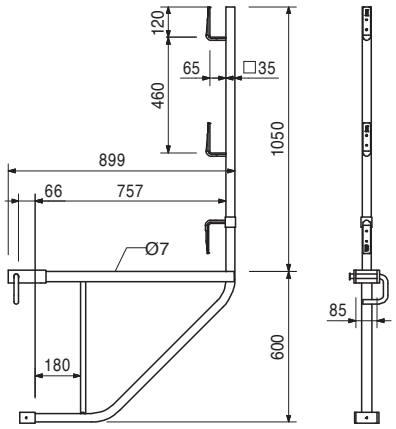


Item no.	Weight kg
027110	11.000

Scaffold Bracket GB 80
For assembly of a working and concreting scaffold with GT 24 girder.

Technical Data
Permissible load 150 kg/m². Maximum width of influence 1.25 m.





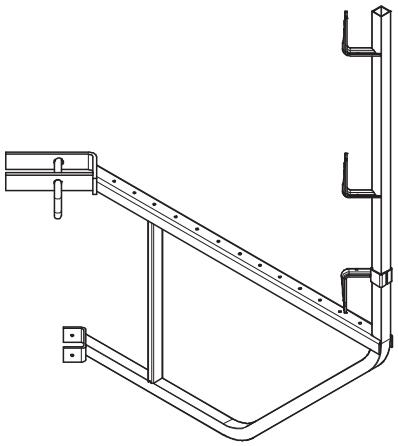
Corner Scaffold Brackets EGB

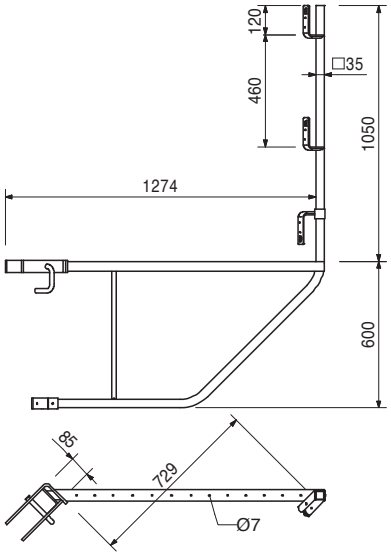
027060	13.800
027070	13.800

Corner Scaffold Bracket EGB 24 – 80, right
Corner Scaffold Bracket EGB 24 – 80, left
For assembling a working scaffold to panels with GT 24 Girders. With securing bolts.

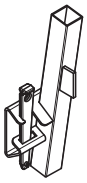
Note
Illustration shows Corner Scaffold Bracket EGB 24 – 80 right.

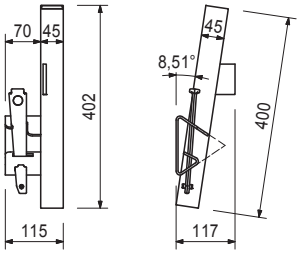
Technical Data
Permissible load 150 kg/m² with a maximum width of influence 1.25 m.





Item no.	Weight kg		
112159	2.120	**Handrail Post Holder VARIO** For assembling a guardrail with GT 24 Girder.	**Complete with** 1 pc. 024250 Wedge K, galv. 1 pc. 780800 Sleeve ISO 8752 8 x 20, galv. **Technical Data** Maximum width of influence 2.00 m.



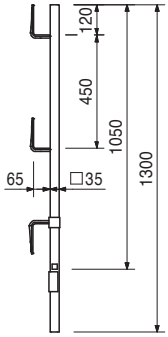


Accessories

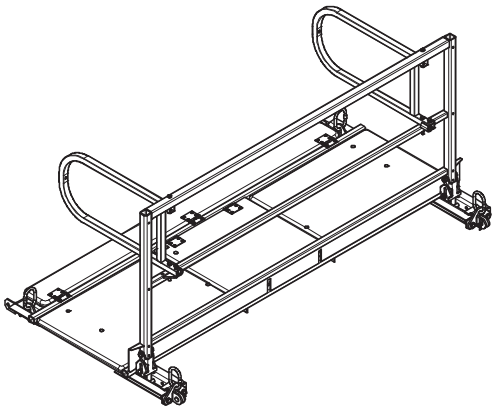
116292	4.730	**Guardrail Post HSGP-2**

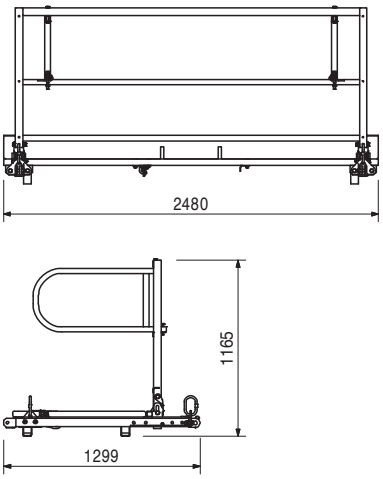
116292	4.730	**Guardrail Post HSGP-2** As guardrail for different systems.



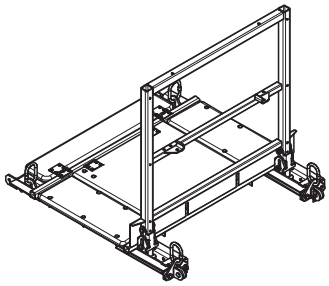


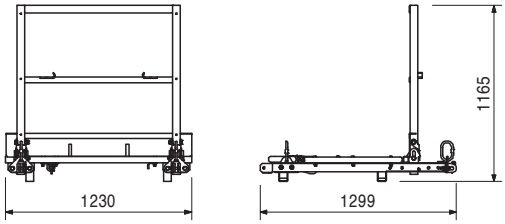
105985	156.000	**Platform VARIO 100 x 250 with Hatch** Pre-assembled working platform for VARIO GT 24 panels.	**Complete with** 2 pc. 100813 Platform Guardrail 80 **Technical Data** Permissible load 150 kg/m².





Item no.	Weight kg		
102415	98.800	**Platform VARIO 100 x 125 with Hatch** Pre-assembled working platform for VARIO GT 24 panels.	**Technical Data** Permissible load 150 kg/m².

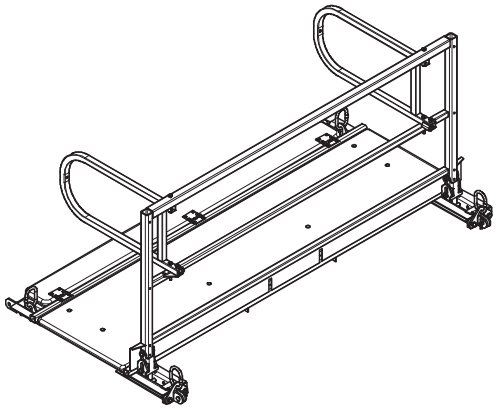


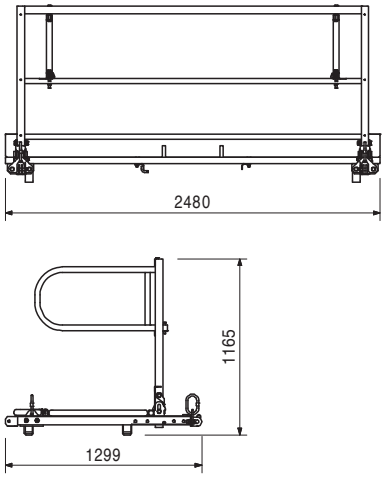


Accessories

100813	4.980	**Platform Guardrail 80**

105986	155.000	**Platform VARIO 100 x 250 without Hatch** Pre-assembled working platform for VARIO GT 24 panels.	**Complete with** 2 pc. 100813 Platform Guardrail 80 **Technical Data** Permissible load 150 kg/m².

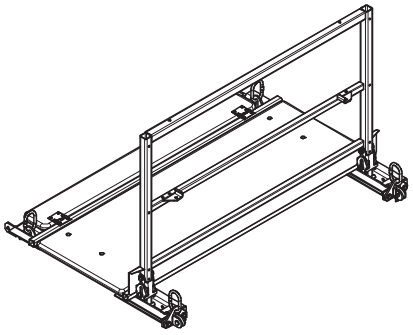


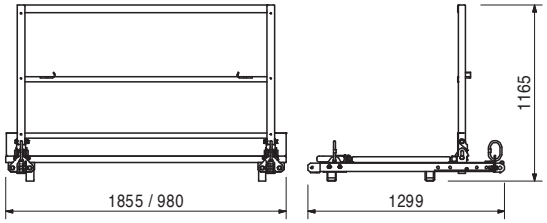


Item no.	Weight kg	
		Platforms VARIO without Hatch
102920	115.000	**Platform VARIO 100 x 187.5**
103203	84.900	**Platform VARIO 100 x 100**

Pre-assembled working platform for VARIO GT 24 panels.

Technical Data
Permissible load 150 kg/m².





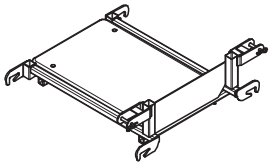
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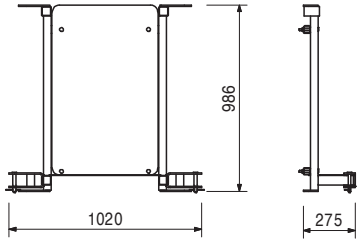
100813	4.980	**Platform Guardrail 80**

103932	36.300	**End Platform VARIO**

Pre-assembled working platform for VARIO GT 24 stopend formwork. 2 pieces per set of stopend formwork and platform level.

Technical Data
Permissible load 150 kg/m².





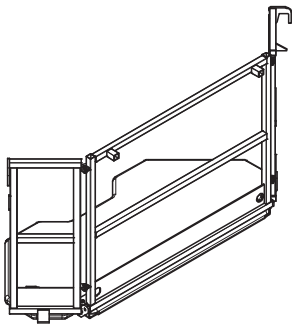
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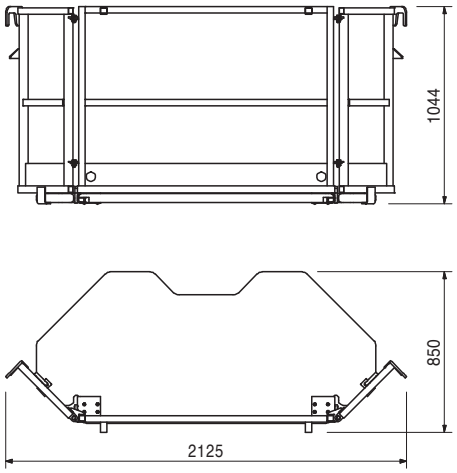
103865	22.000	**Guardrail for End Platform VARIO**

103992	65.600	**External Corner Platform VARIO**

Pre-assembled working platform for VARIO GT 24 panels. Connecting platform with pivot-mounted end handrail. For external corners from 80° to 100°.

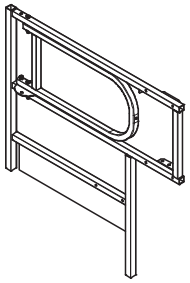
Technical Data
Permissible load 150 kg/m².

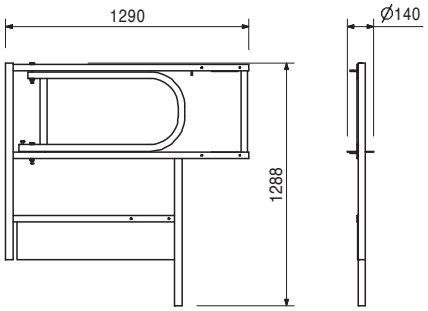




Item no.	Weight kg
103865	22.000

Guardrail for End Platform VARIO
For assembly on VARIO End Platform with wall thicknesses up to 0.50 m. With foldable VARIO Platform Handrail 80.

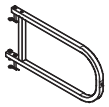


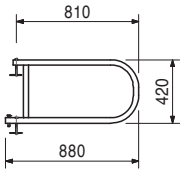


100813	4.980

Platform Guardrail 80
End handrail for various platforms. Pivot-mounted.

Complete with
2 pc. 102414 Bolt Ø 12 x 105 x 5 x 95-ST, galv.
2 pc. 018060 Cotter Pin 4/1, galv.

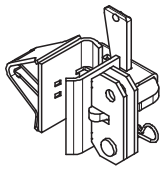


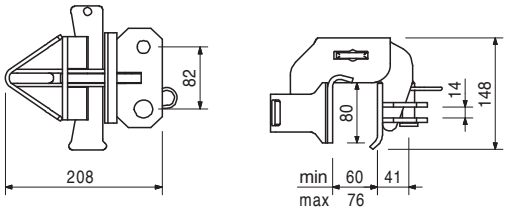


100541	4.020

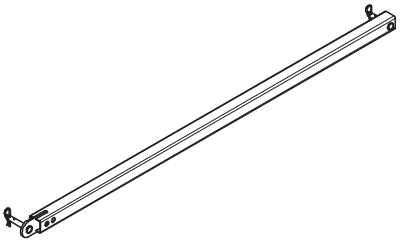
Connector for Platform VARIO
For connecting the VARIO platforms and platform struts to GT 24 girders.

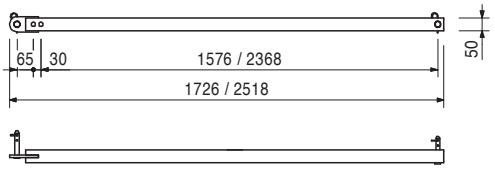
Complete with
1 pc. 027170 Pin Ø 16 x 42, galv.
1 pc. 018060 Cotter Pin 4/1, galv.



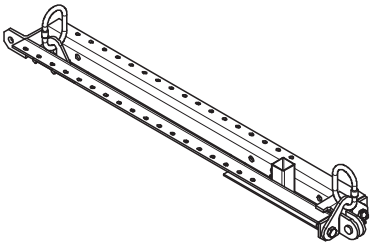


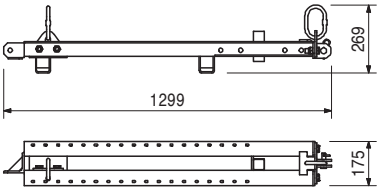
Item no.	Weight kg		
		Platform Struts VARIO	**Complete with**
101273	7.780	**Platform Strut VARIO 167**	2 pc. 018050 Pin Ø 16 x 65/86, galv.
101269	11.200	**Platform Strut VARIO 246**	2 pc. 018060 Cotter Pin 4/1, galv.
		For assembling VARIO platforms. 2 pieces per platform.	



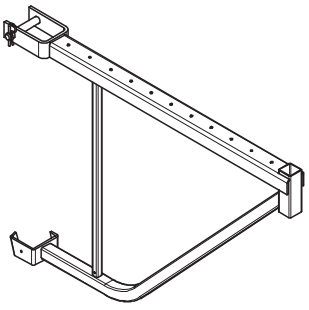


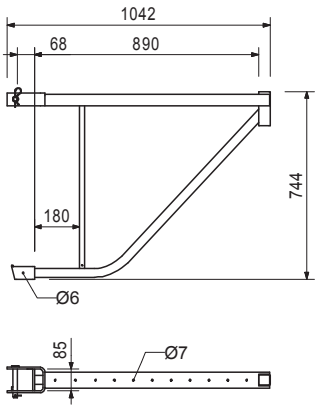
		Platform Beams VARIO	**Note**
105480	16.600	**Platform Beam VARIO, left**	Illustration shows the VARIO Platform Beam, left.
105484	16.600	**Platform Beam VARIO, right**	
		For assembling VARIO GT 24 filler platforms with bolted boarding.	





105823	9.310	**Platform Bracket VARIO VBK 90**	**Complete with**
		For assembly of a working and concreting scaffold on elements with GT 24 girders. With safety pins and cotter pins.	1 pc. 106336 Bolt Ø 20 x 120, galv. 1 pc. 018060 Cotter Pin 4/1, galv. **Technical Data** Permissible load 150 kg/m² with a maximum width of influence 1.25 m.

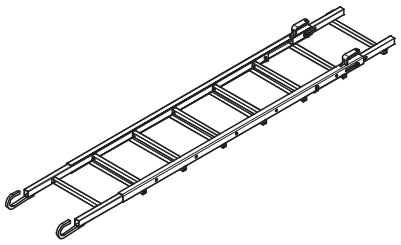


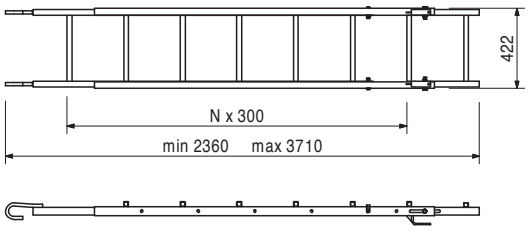


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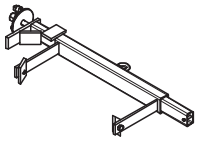
116292	4.730	**Guardrail Post HSGP-2**

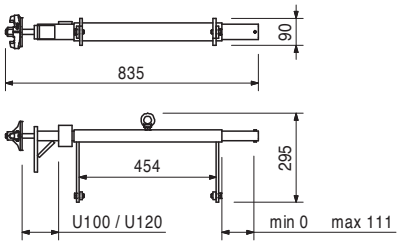
Item no.	Weight kg	
107738	24.100	**Ladder 240 – 360** Adjustable from 2.40 m to 3.60 m.



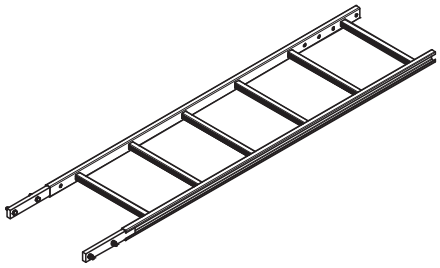


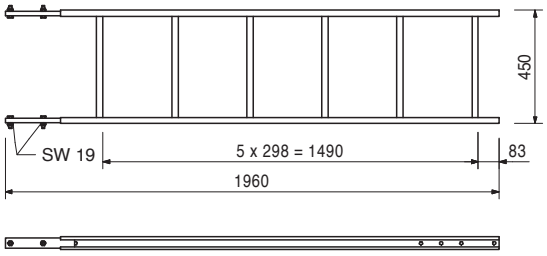
111165	6.080	**Ladder Connector VARIO, adjustable** For connecting ladders to Steel Walers SRZ and SRU, Profile U100 – U120. **Complete with** 2 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv. 2 pc. 701763 Clamping Plate Fl 25 x 10 x 90



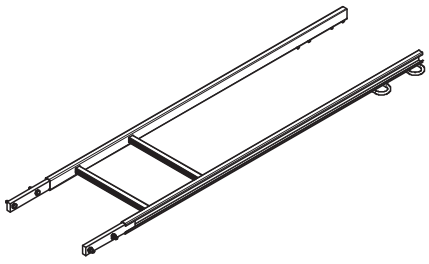


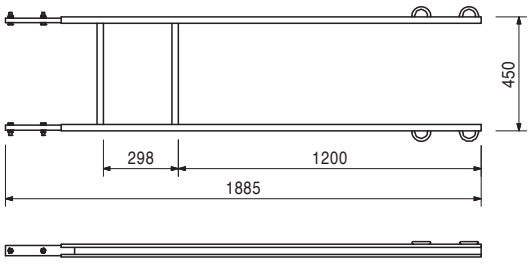
051410	11.700	**Ladder 180/6, galv.** As access for PERI Formwork Systems. **Complete with** 4 pc. 710224 Bolt ISO 4017 M12 x 40-8.8, galv. 4 pc. 710381 Nut ISO 7042 M12-8, galv.



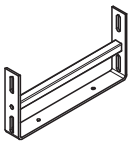


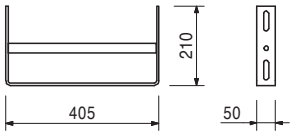
103724	10.400	**End Ladder 180/2, galv.** As access for PERI Formwork Systems. **Complete with** 4 pc. 710224 Bolt ISO 4017 M12 x 40-8.8, galv. 4 pc. 710381 Nut ISO 7042 M12-8, galv.





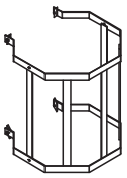
Item no.	Weight kg	
051460	2.180	**Ladder Base, galv.** As bottom ladder connection and for securing ladders against sliding on the scaffold decks.

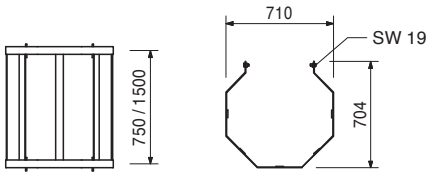




		Ladder Safety Cages
104132	15.600	**Ladder Safety Cage 75, galv.**
051450	25.200	**Ladder Safety Cage 150, galv.**
		Ladder safety cage for PERI Access Ladders.

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

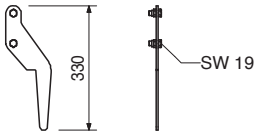




103718	0.684	**Ladder Hook, galv.** For adjusting the bottom ladder. Always use in pairs.

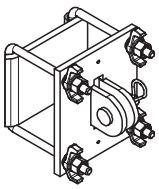
Complete with
2 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv.
2 pc. 710381 Nut ISO 7042 M12-8, galv.

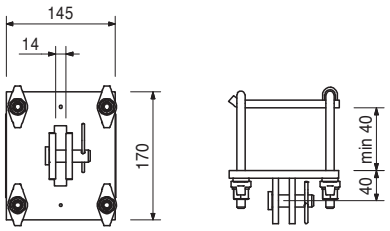




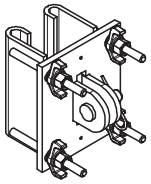
028050	4.550	**Girder Headpiece GT 24, galv.** For connecting push-pull props and kicker braces to GT 24 Girders.

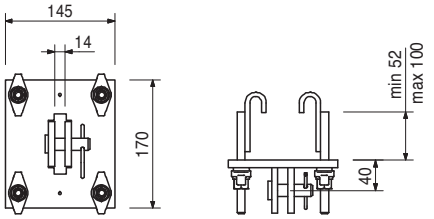
Complete with
1 pc. 027170 Pin Ø 16 x 42, galv.
1 pc. 018060 Cotter Pin 4/1, galv.



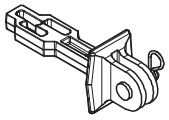


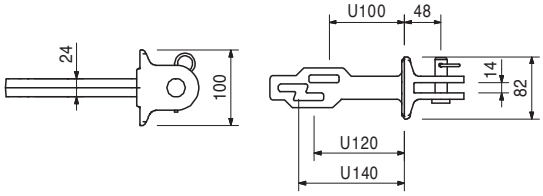
Item no.	Weight kg		
028070	4.680	**Girder Headpiece GT 24/A, galv.** For connecting push-pull props and kicker braces to extended GT 24 Girders in the area of the Extension Splice 24-2.	**Complete with** 1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.





028060	1.940	**Wedge Headpiece SRZ/SRU** For connecting push-pull props and kicker braces to Steel Waler SRZ and SRU Profile U100 – U140.	**Complete with** 1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.

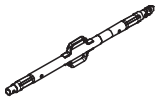


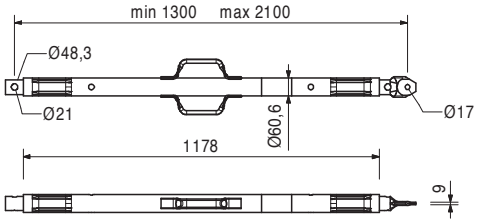


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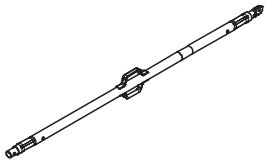
024250	0.331	**Wedge K, galv.**

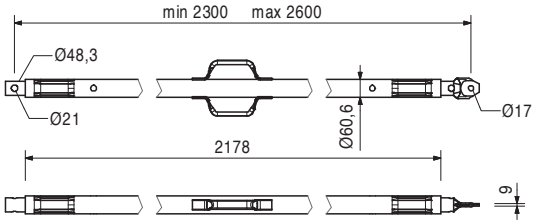
117466	10.600	**Push-Pull Prop RS 210, galv.** Extension length l = 1.30 – 2.10 m. For aligning PERI formwork systems and precast concrete elements.	**Note** Permissible load see PERI Design Tables.



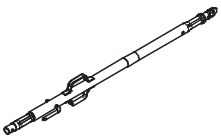


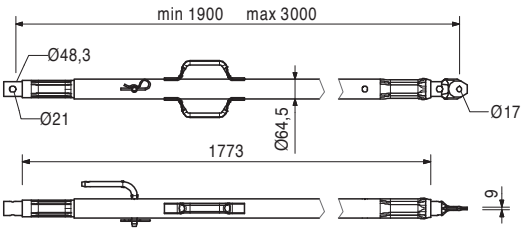
118238	12.200	**Push-Pull Prop RS 260, galv.** Extension length l = 2.30 – 2.60 m. For aligning PERI formwork systems and precast concrete elements.	**Note** Permissible load see PERI Design Tables.



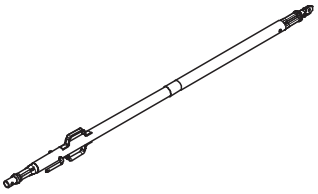


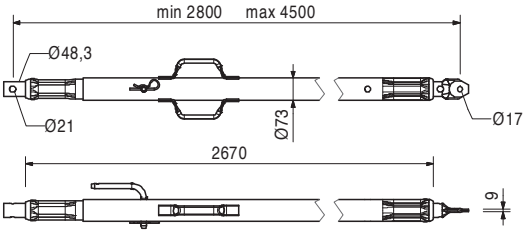
Item no.	Weight kg		
117467	15.500	**Push-Pull Prop RS 300, galv.** Extension length l = 1.90 – 3.00 m. For aligning PERI formwork systems and precast concrete elements.	**Note** Permissible load see PERI Design Tables.



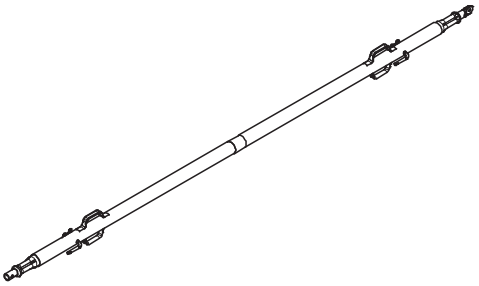


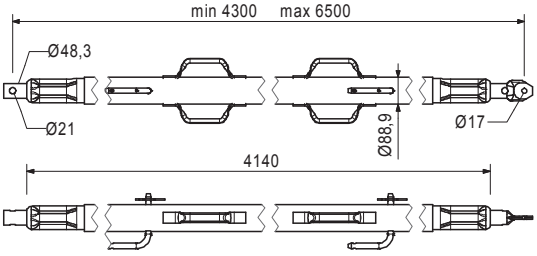
117468	23.000	**Push-Pull Prop RS 450, galv.** Extension length l = 2.80 – 4.50 m. For aligning PERI formwork systems and precast concrete elements.	**Note** Permissible load see PERI Design Tables.



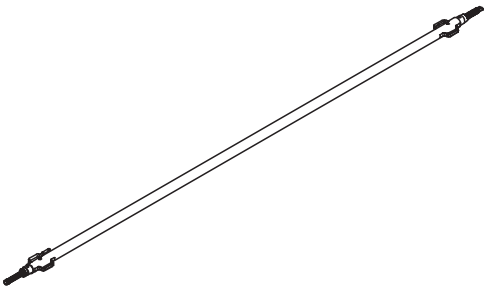


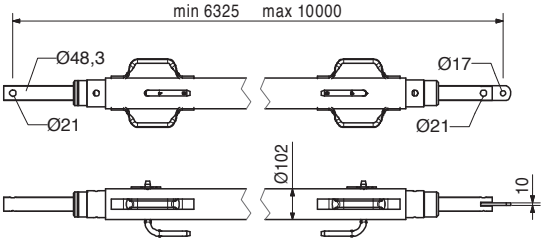
117469	40.000	**Push-Pull Prop RS 650, galv.** Extension length l = 4.30 – 6.50 m. For aligning PERI formwork systems and precast concrete elements.	**Note** Permissible load see PERI Design Tables.



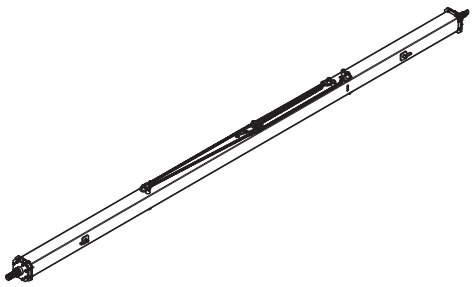


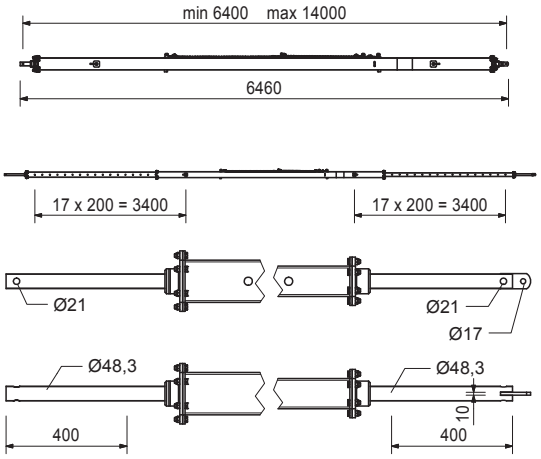
028990	115.000	**Push-Pull Prop RS 1000, galv.** Extension length l = 6.40 – 10.00 m. For aligning PERI formwork systems.	**Note** Permissible load see PERI Design Tables.



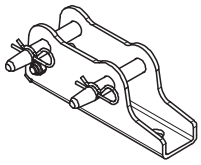


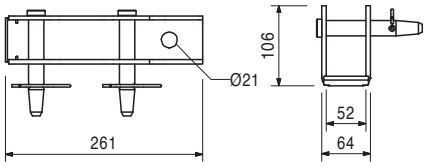
Item no.	Weight kg		
103800	271.000	**Push-Pull Prop RS 1400, galv.** Extension length l = 6.40 – 14.00 m. For aligning PERI formwork systems.	**Note** Permissible load see PERI Design Tables. Chain can be operated from bottom.





117343	3.250	**Base Plate-2 for RS 210 – 1400, galv.** For assembly of Push-Pull Props RS 210, 260, 300, 450, 650, 1000 and 1400.	**Complete with** 2 pc. 105400 Pin Ø 20 x 140, galv. 2 pc. 018060 Cotter Pin 4/1, galv.

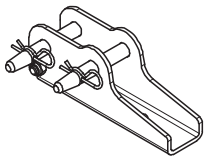


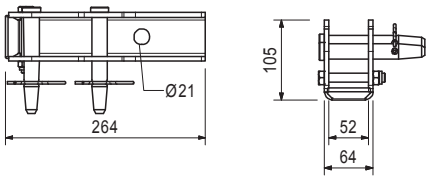


Accessories

124777	0.210	**Anchor Bolt PERI 14/20 x 130**

126666	3.070	**Base Plate-3 for RS 210 – 1400** For assembly of Push-Pull Props RS 210, 260, 300, 450, 650, 1000 and 1400.	**Complete with** 2 pc. 105400 Pin Ø 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 ISO7042-M12-8-G, galv.

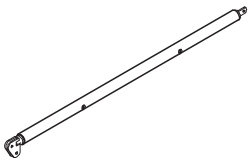


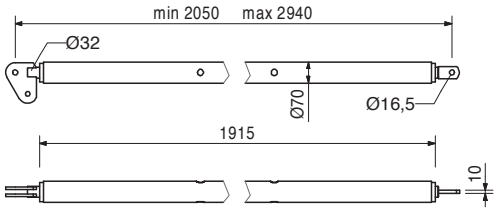


Accessories

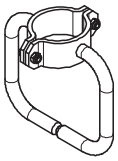
124777	0.210	**Anchor Bolt PERI 14/20 x 130**

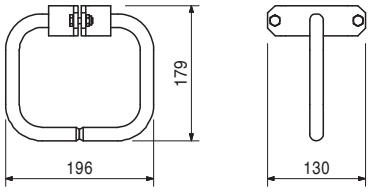
Item no.	Weight kg		
028010	17.900	**Push-Pull Prop RSS I** Extension length l = 2.05 – 2.94 m. For aligning PERI formwork systems.	**Note** Permissible load see PERI Design Tables.



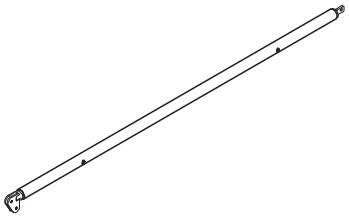


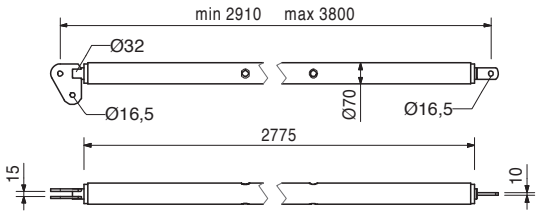
113397	1.600	**Spindle Handle RSS / AV** Spindle Handle for screwing on Push-Pull-Props RSS I, RSS II, RSS III and Kickers AV 210 and AV 190 complete with 2 bolts and nuts M8.	



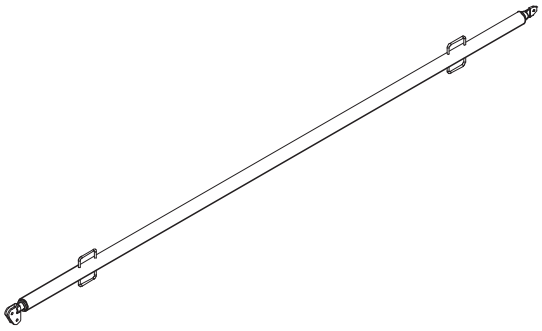


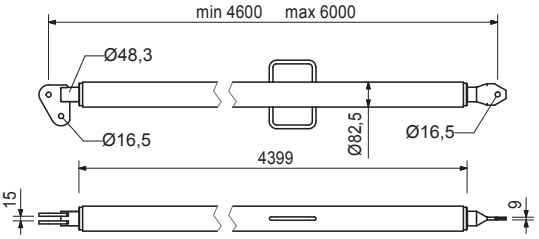
028020	22.000	**Push-Pull Prop RSS II** Extension length l = 2.91 – 3.80 m. For aligning PERI formwork systems.	**Note** Permissible load see PERI Design Tables.



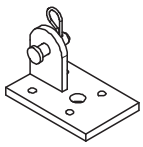


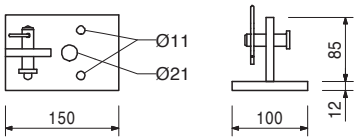
028030	38.400	**Push-Pull Prop RSS III** Extension length l = 4.60 – 6.00 m. For aligning PERI formwork systems.	**Note** Permissible load see PERI Design Tables.





Item no.	Weight kg		
106000	1.820	**Base Plate-2 for RSS, galv.** For assembly of RSS Push-Pull Props.	**Complete with** 1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.





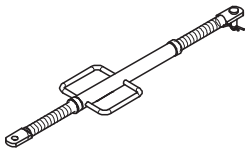
Accessories

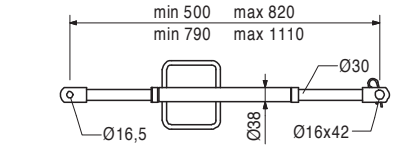
124777	0.210	**Anchor Bolt PERI 14/20 x 130**

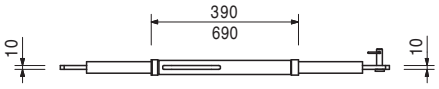
		Kickers AV	**min. L**	**max. L**
057087	3.720	**Kicker AV 82**	500	820
057088	4.410	**Kicker AV 111**	790	1110

For aligning PERI formwork systems.

Complete with
1 pc. 027170 Pin Ø 16 x 42, galv.
1 pc. 018060 Cotter Pin 4/1, galv.
Note
Permissible load see PERI Design Tables.

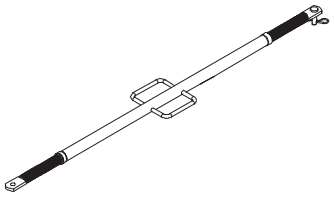


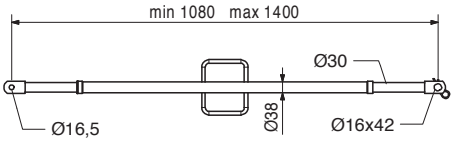


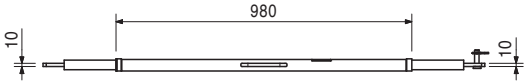


028110	5.180	**Kicker AV 140** Extension length l = 1.08 – 1.40 m. For aligning PERI formwork systems.

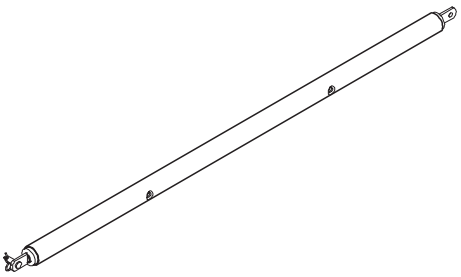
Complete with
1 pc. 027170 Pin Ø 16 x 42, galv.
1 pc. 018060 Cotter Pin 4/1, galv.
Note
Permissible load see PERI Design Tables.

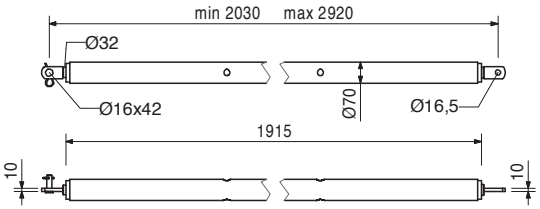




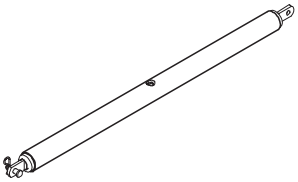


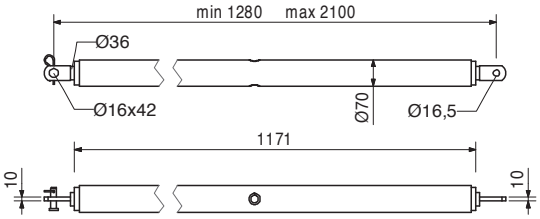
Item no.	Weight kg		
028120	17.000	**Kicker AV RSS III** Extension length l = 2.03 – 2.92 m. For aligning PERI formwork systems.	**Complete with** 1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv. **Note** Permissible load see PERI Design Tables.



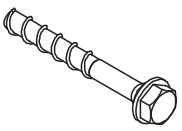


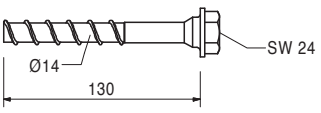
108135	12.900	**Kicker AV 210** Extension length l = 1.28 – 2.10 m. For aligning PERI formwork systems.	**Complete with** 1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv. **Note** Permissible load see PERI Design Tables.



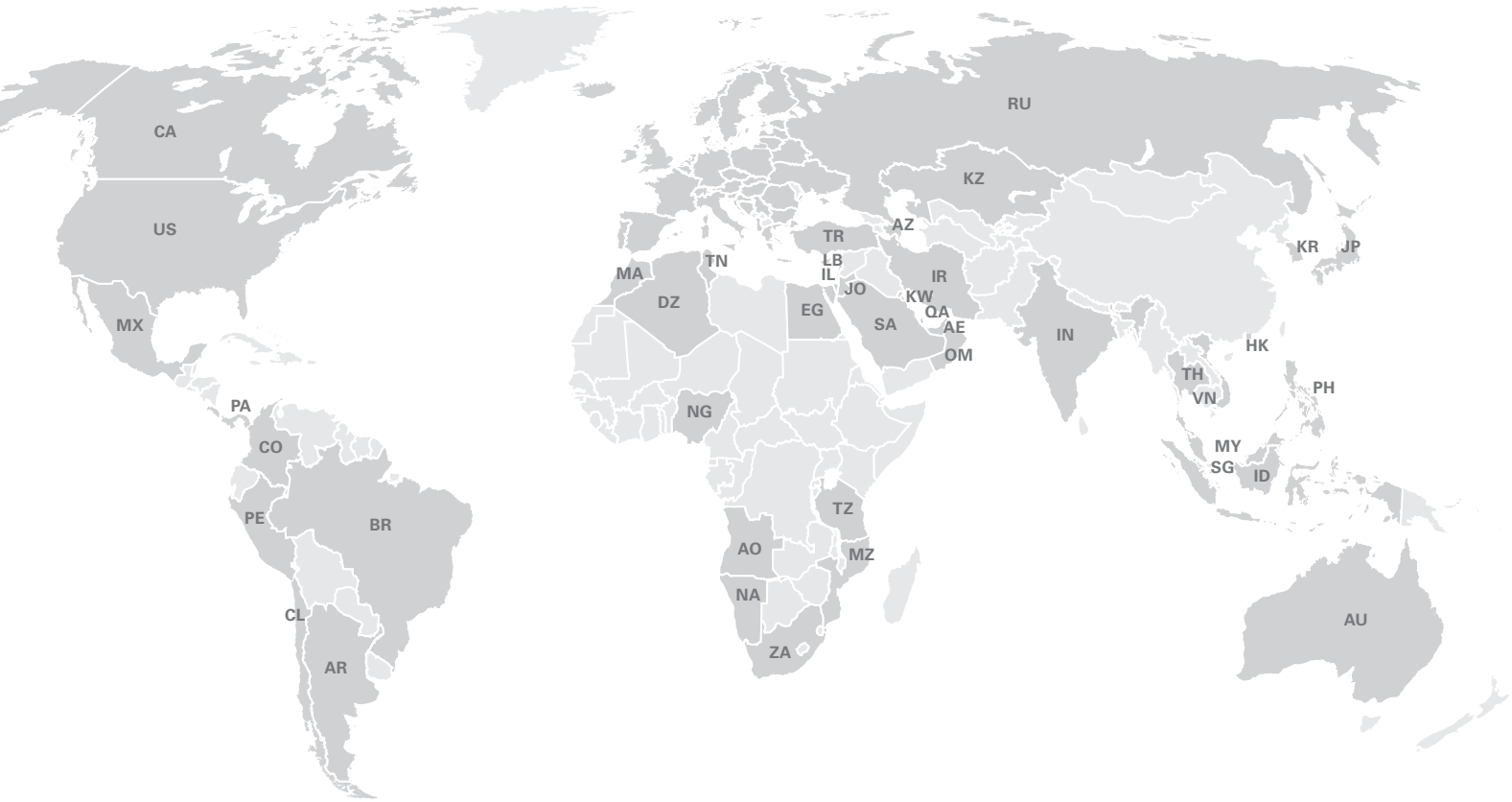


124777	0.210	**Anchor Bolt PERI 14/20 x 130** For temporary fixation to reinforced concrete structures.	**Note** See PERI data sheet! Drilling Ø 14 mm.





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