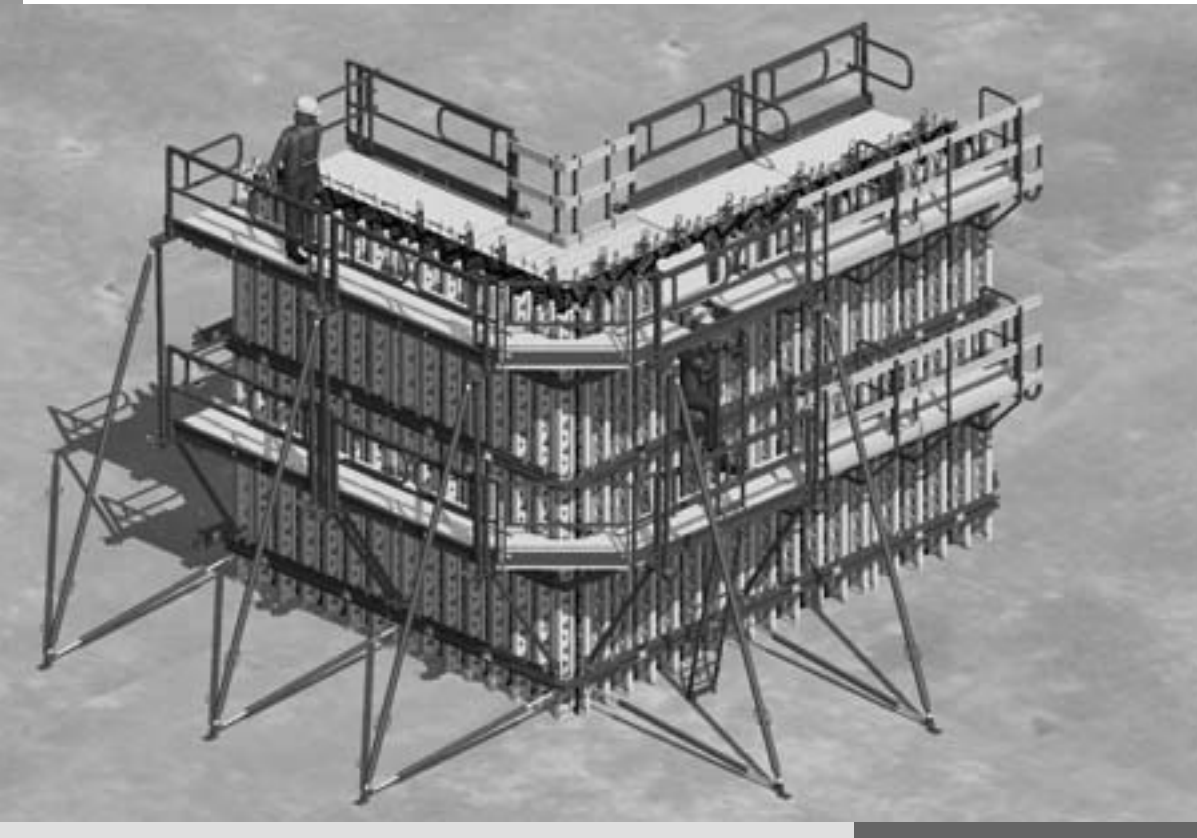


VARIO GT 24

Girder Wall Formwork

Assembly Instructions for Standard Configuration



Content

Introduction

Overview, Main Components	1
Standard configuration	4
Intended use	4
Safety instructions	5
General	5

A General, Element Assembly

A1 Maintenance and cleaning	6
A2 Panel assembly	8
A3 Assembly of internal corner with VSRZ	10
A4 Assembly of internal corner with IRZ	12
A5 Filler element	14
A6 Hook straps	16

B Working on the construction site

B1 Push-pull props and kickers	18
B2 Working and concreting scaffold	
Scaffold Bracket GB 80, EGB 80L, R	20
VARIO platform system	22
B3 Lifting unit	
Crane Splice 24	28
Crane Eye 24L, R	28
Lifting Unit 2 t / GT 24	29
B4 External corners	30
B5 Internal corners	31
B6 Panel connections	32
B7 Length compensations	33
B8 Anchoring	34
B9 Stopend formwork	35
B10 Height extensions	36

C Application

C1 T-junctions 90°, Obtuse wall connection	38
C2 Oblique angle	39
C3 Shafts	40
C4 Element connections for architectural concrete	41

D System supplements

D1 Steel Waler SRU	42
D2 Universal Coupling UK 70	43

Product overview

Components	44
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Key



Safety Instructions



Note



Visual Check



Tip

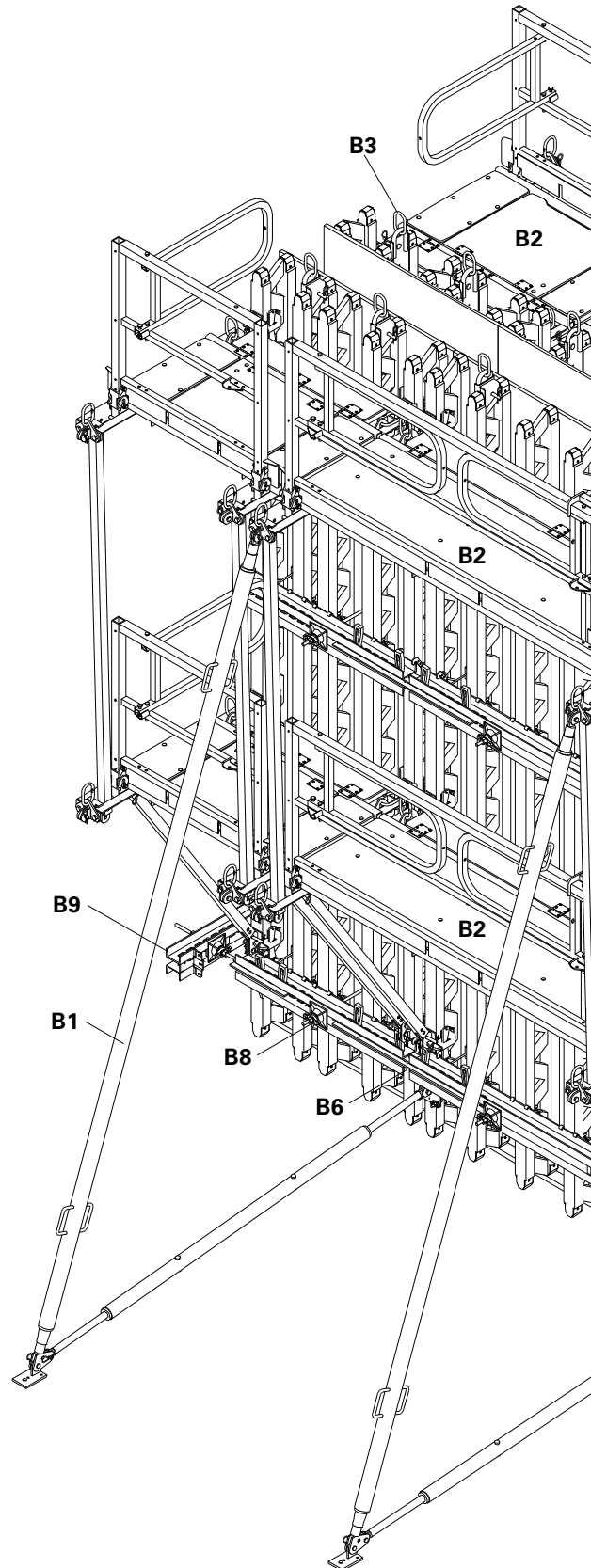


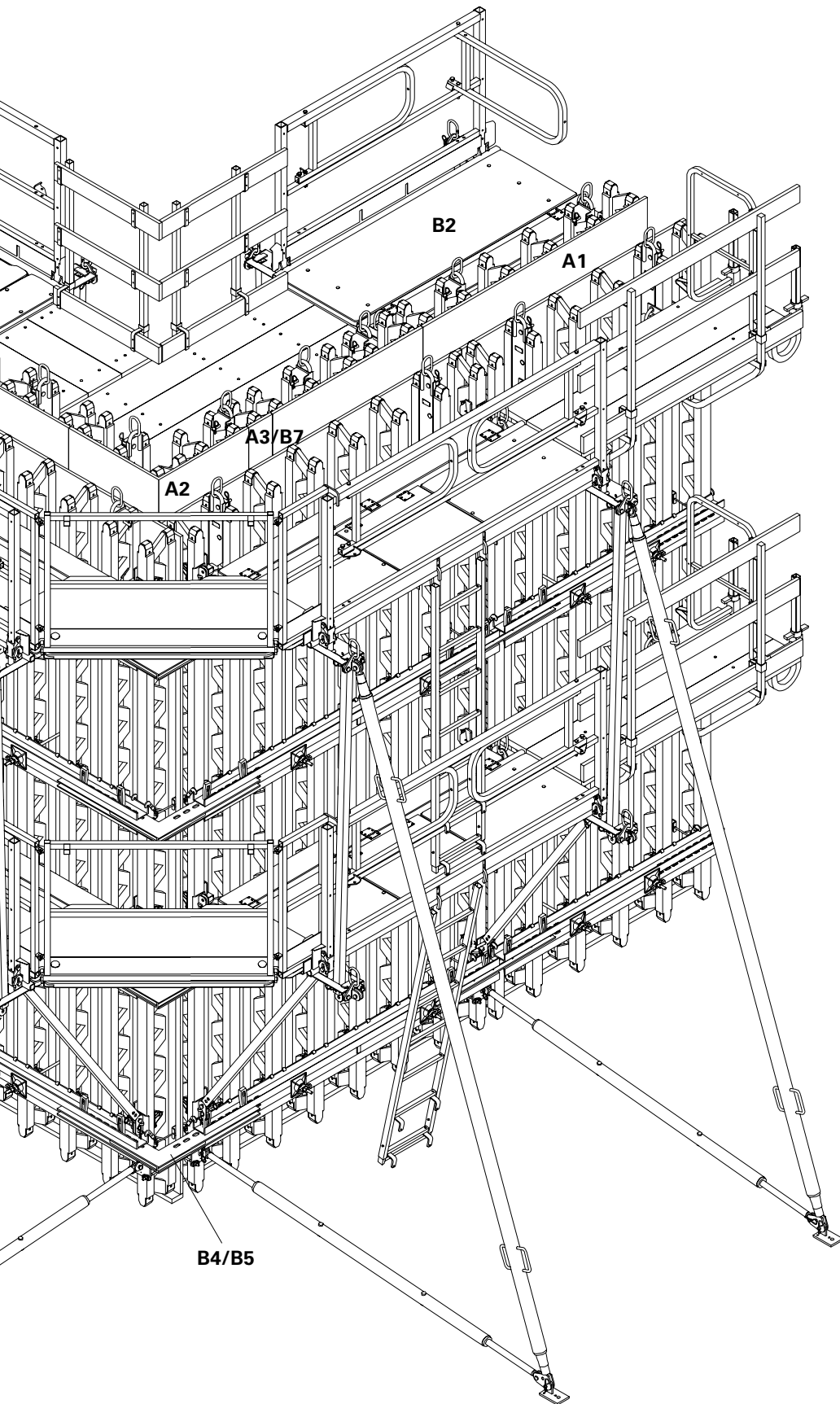
Load-bearing point

Introduction

Overview, Main Components

- A1 Element
- A2 Internal corner
- A3 Filler element
- B1 Push-pull props
- B2 Working and concreting scaffold
- B3 Lifting unit
- B4 / B5 External corner
- B6 Panel connections
- B7 Length compensations
- B8 Anchor
- B9 Stopend formwork





Element width

The element width is determined by the length of the SRZ or SRU steel walers.

Element height

The element height is determined by the GT 24 girder length.

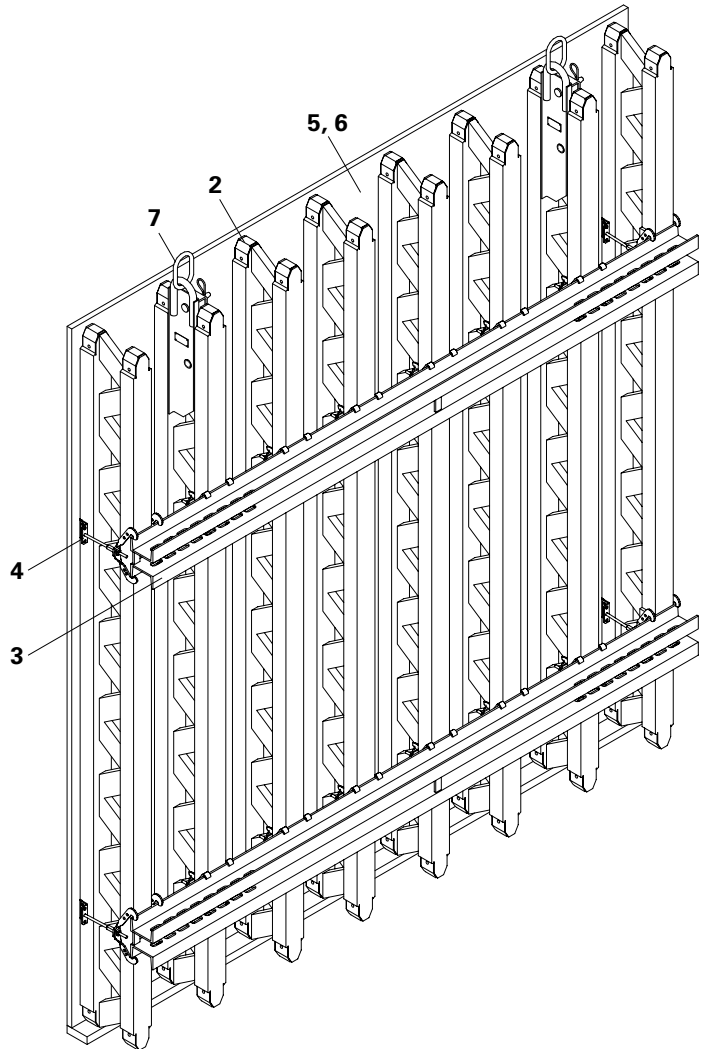
The GT 24 girder is available in lengths ranging from 0.90 m to 6.0 m. Special lengths of up to 17.80 m are also available.

Fresh concrete pressure

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

Basic element

- 1 VARIO panel
- 2 Lattice Girder GT 24
- 3 Steel Waler SRZ/SRU
- 4 Hook Strap HB/HBU
- 5 Formlining
- 6 Formlining fixing (Torx)
- 7 Crane Splice 24



Introduction

Standard configuration

General

PERI VARIO is a girder formwork system used for forming walls and columns as well as 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. 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 couplings result in the possibility of continuously variable tight connections (tension and compression) in all applications.

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. Square or rectangular column cross-sections are possible and can be continuously formed up to 1.20 m x 1.20 m.

Application

The standard configuration is comprised of formwork for vertical walls up to 12.00 m high, including push-pull props and safety equipment. 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.

Technical Data

The permissible fresh concrete pressure is dependent on the element assembly. Static values for the GT 24 girder and SRZ, SRU steel walers: see PERI tables.

Intended use

1. PERI products have been designed as technical work equipment for exclusive use in the industrial and commercial sectors by suitably trained personnel.
2. These assembly instructions serve as the basis for the project-related risk assessment and the instructions for the provision and use of the system by the contractor (user). However, they do not replace these.
3. Only PERI original components may be used. The use of other products and spare parts represents a misapplication with associated safety risks.

4. The components are to be inspected before each use to ensure that they are in perfect condition and function correctly.
5. Changes to PERI components are not permitted and represent a misapplication with associated safety risks.
6. Safety instructions and permissible loads must be observed at all times.
7. Components provided by the contractor must conform with the characteristics required in these assembly instructions as well as all valid construction guidelines and standards.

- In particular, the following apply if nothing else is specified:
- timber components: Strength Class C24 for Solid Wood EN 338.
 - scaffold tubes: galvanised steel tubing with minimum dimensions Ø 48.3 x 3.2 mm according to EN 12811-1:2003 4.2.1.2.
 - scaffold tube couplings according to EN 74.
8. Deviations from the standard configuration may only be carried out after a separate risk assessment has been completed by the contractor (user). On this basis, appropriate measures for the working safety and stability are to be implemented.

Introduction

Safety instructions

General

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

Storage and Transportation

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

System-Specific

1. Retract components only when the concrete has sufficiently hardened and the person in charge has given the go-ahead for striking to take place.
2. Anchoring is to take place only if the anchorage has sufficient concrete strength.
3. Only use the respective PERI lifting accessories.
4. During striking, do not tear off the formwork panels with the crane.
5. 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.

General

Additional PERI product information

- VARIO GT 24 brochure
- PERI design tables
- BA Crane Splice 24
- Instructions for Use for Lifting Unit 2 t / GT 24
- Instructions for Use for Pallets and Stacking Devices

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

A1 Maintenance and cleaning

In order to maintain the value and operational readiness of the VARIO GT 24 girder wall formwork over a long period of time, it must be ensured that the formwork is always carefully handled.

Maintenance tips

1. Concrete vibrator with rubber end cap reduces the risk of damage to the formlining.
2. Spacers used for the reinforcement with large contact surfaces prevent impressions forming on the formlining.
3. When placing heavy items on the formlining, use support timbers in order to prevent any impressions on and damage to the formlining surface.
4. Spray the components with PERI Bio Clean before every use and clean the rear of the formwork with water immediately after concreting.
(Fig. A1.01)
5. Spray moving parts, if required, with PERI Bio Clean.
6. For damage-free transportation, suitable PERI pallets and stacking devices are available.
(Fig. A1.02)

Due to the powder coating, cleaning requirements are kept to a minimum.

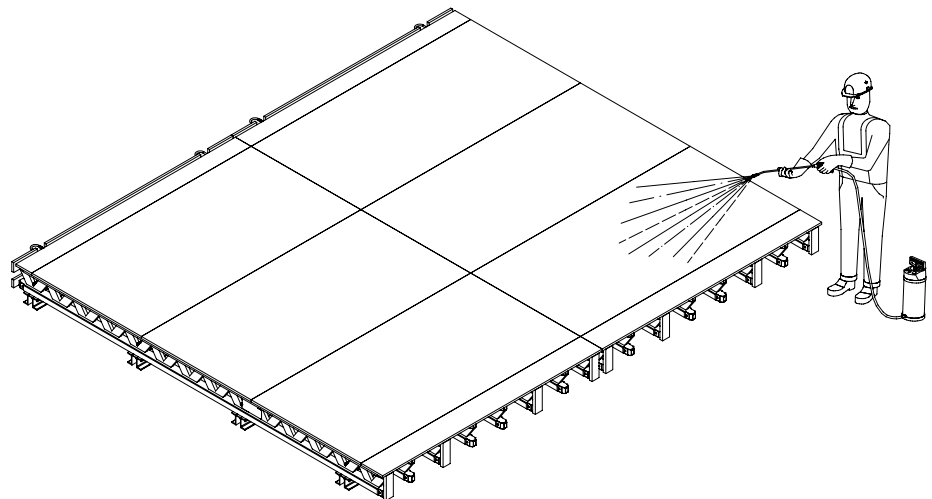


Fig. A1.01

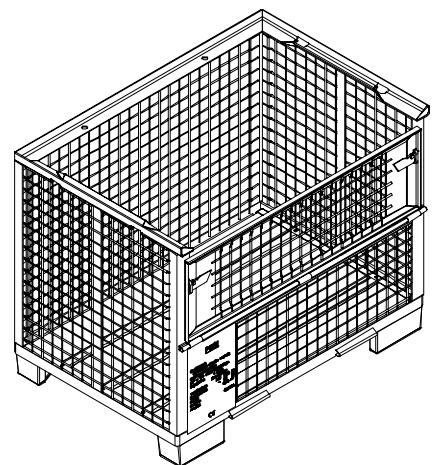


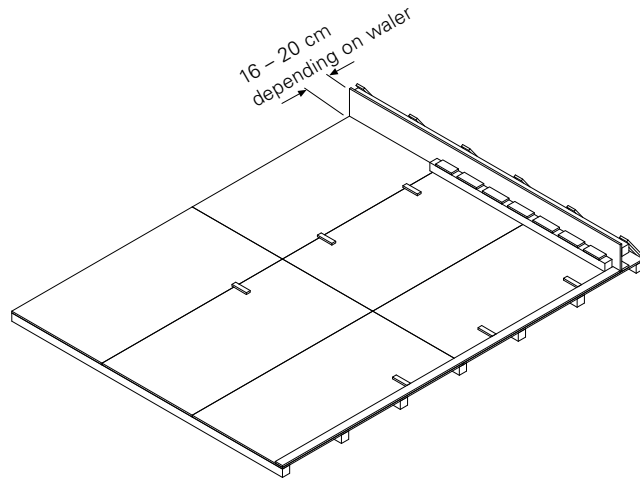
Fig. A1.02

A2 Element Assembly

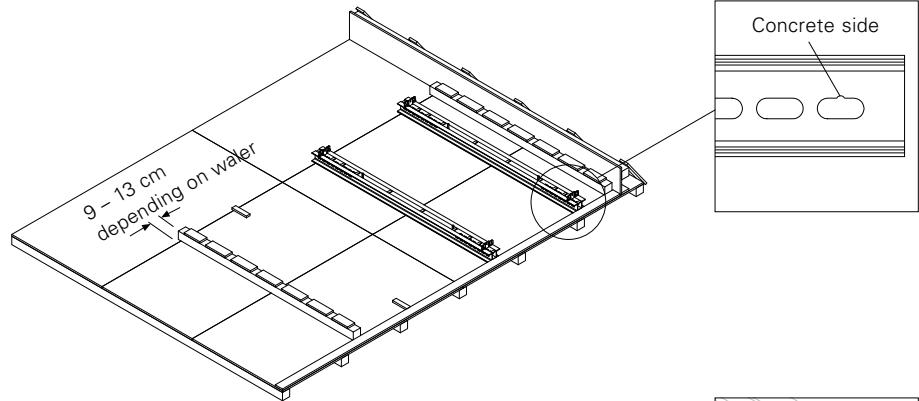
1. On a sufficiently large and flat assembly area, mount stopping boards for the steel walers and girder spacing battens according to the assembly plans.



With subsequent use of the GB 80 Scaffold Bracket, the girder spacing must be at least 20 cm.



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.



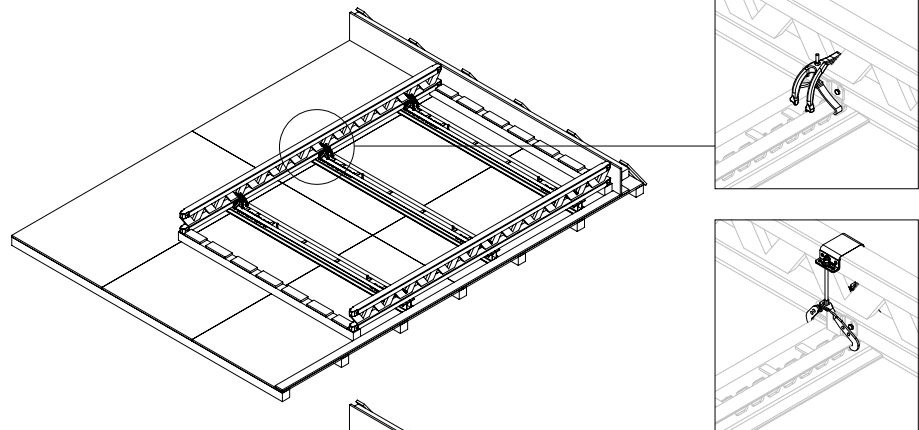
3. Position edge beam against the steel waler and secure.

Fastening takes place with:

- girder claw and hex. wood screws M8 x 60

or

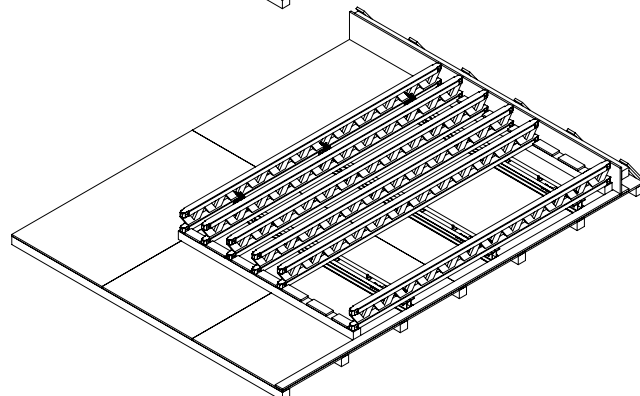
- HBU Hook Strap and Torx TSS.



4. position intermediate girder and align on spacing battens.



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

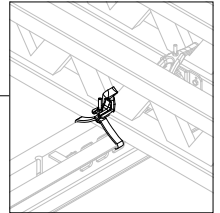
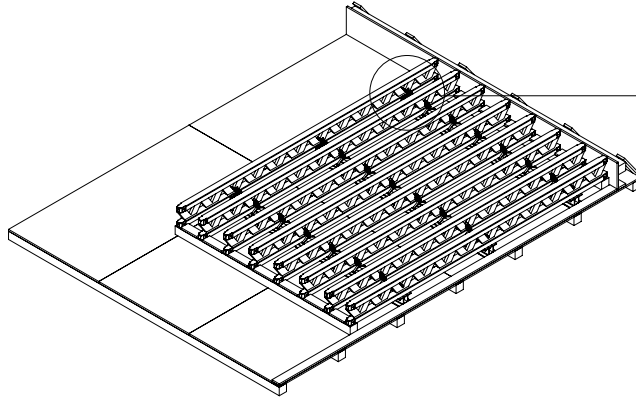


A2 Element Assembly

5. Mount hook strap.



Alternate fixing of the girders ensures even contact pressure.



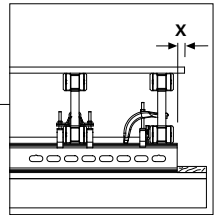
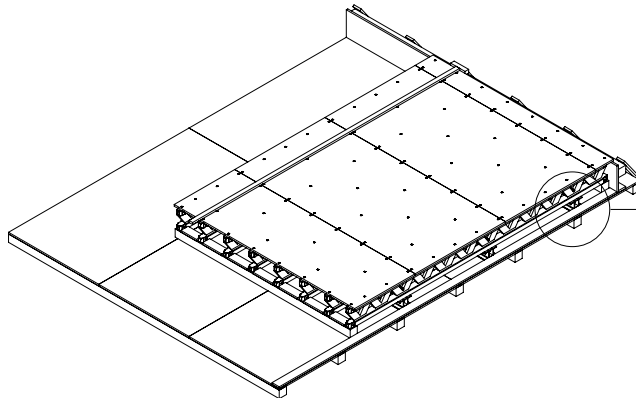
6. Position formlining and fix first sheet by means of nails.

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 pro m².



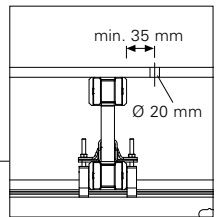
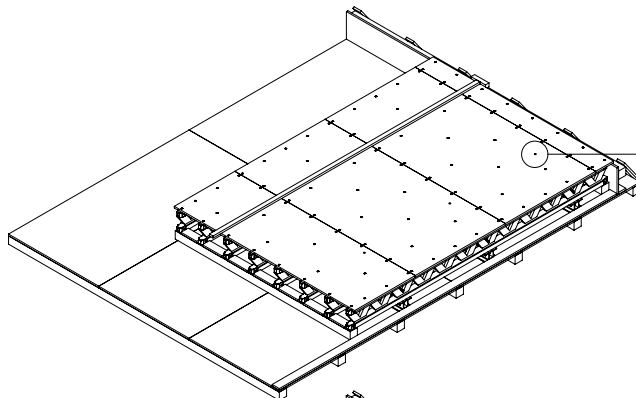
Pay attention to projecting lengths of the formlining at the top and bottom when extending later on.



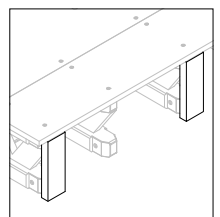
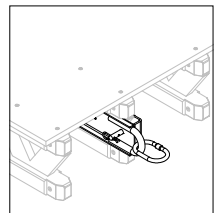
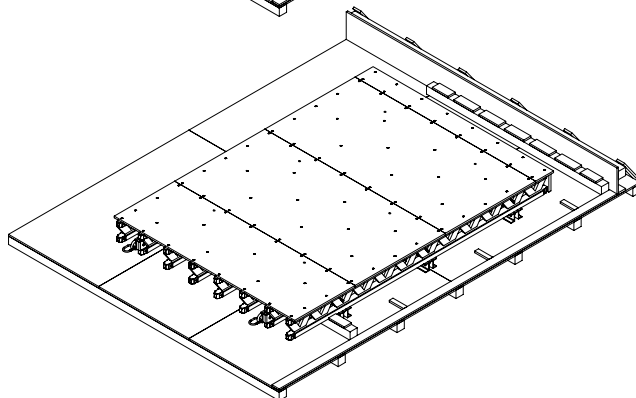
7. Mark position of tie holes and drill holes with a Ø 20 mm bit.



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

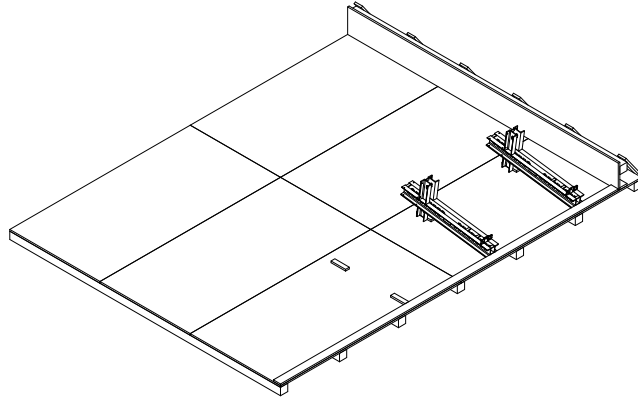


8. If necessary, mount Crane Splice 24 at the top and rubbing boards at the bottom.



A3 Assembly of Internal Corner with VSRZ

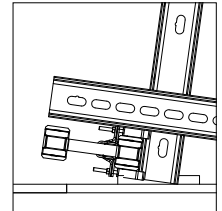
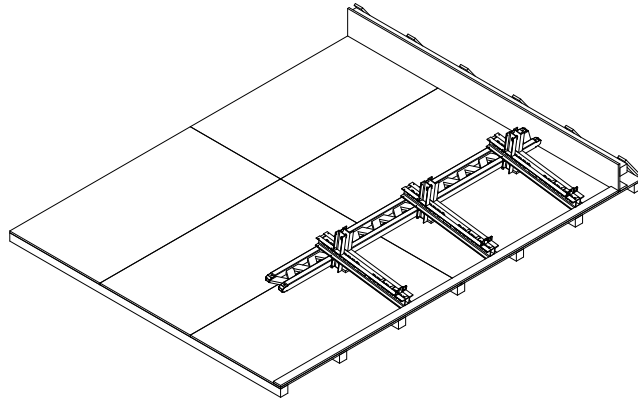
1. Lay the VSRZ Steel Waler on the assembly area. Make sure it is placed directly against the stopping board. The long stub points upwards.



2. Position the GT 24 girder, use screw clamps to hold in position and fix by means of HB Hook Straps.



Tighten hook straps alternately with an impact screwdriver.



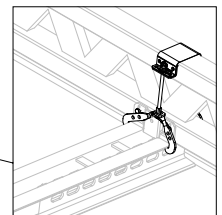
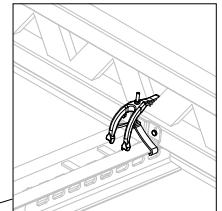
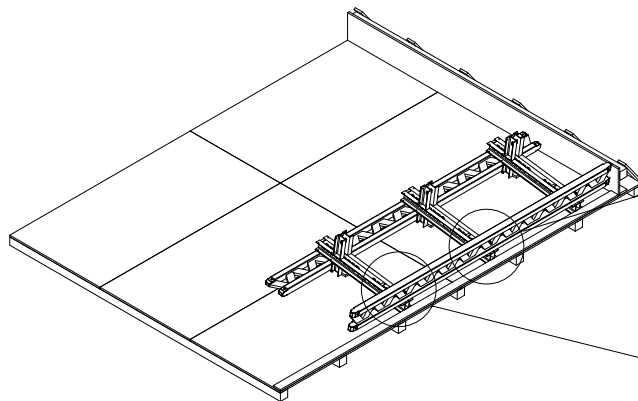
3. Position edge beam against the steel waler and secure.

Fastening takes place with:

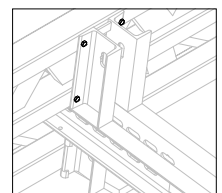
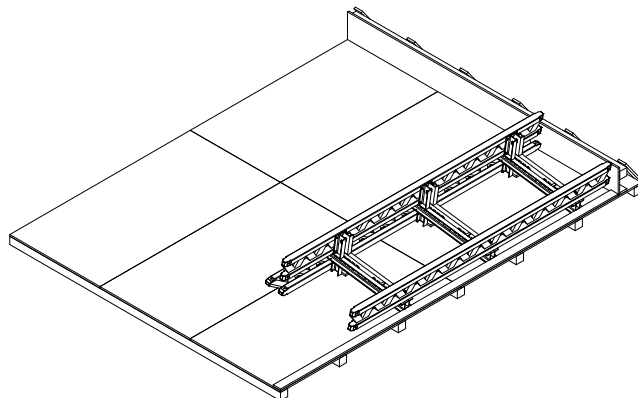
- girder claws and hex. wood screws M8 x 60

or

- HBU Hook Strap and Torx TSS.



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.

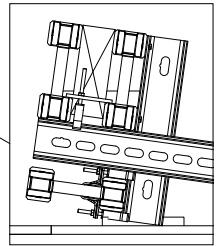
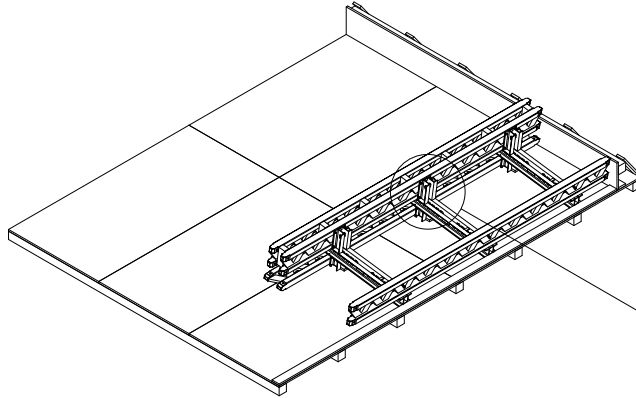


A3 Assembly of Internal Corner with VSRZ

5. Position additional girders, use screw clamps to hold in position and fix by means of Fix Straps U100 - U120. Install spacers between the pairs of girders.



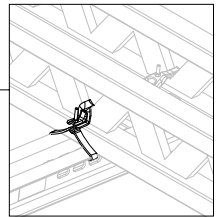
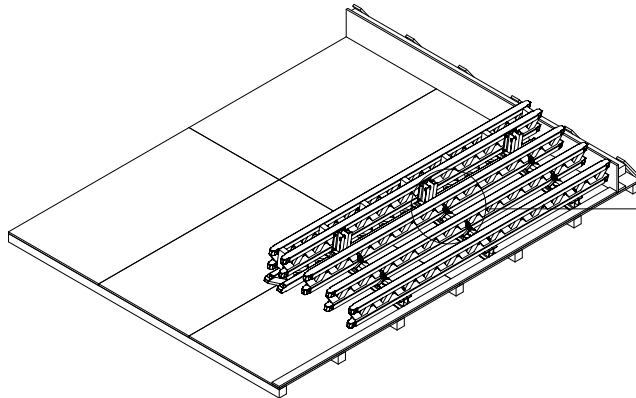
Check the angle on each waler.



6. Place and align intermediate girder and secure using the HB Hook Straps.



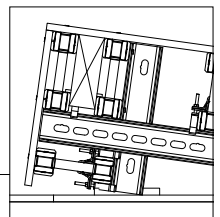
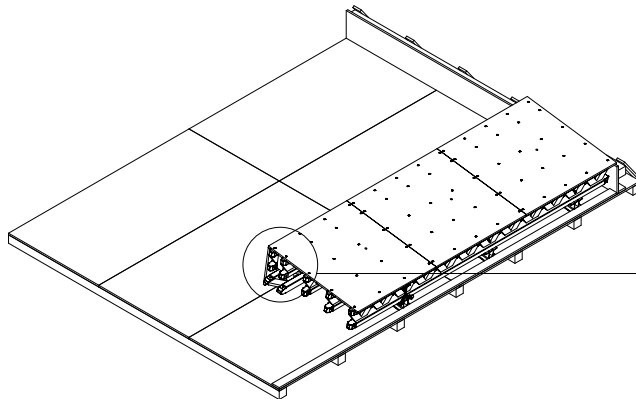
For later extensions, ensure stopping board is free of any obstructions.



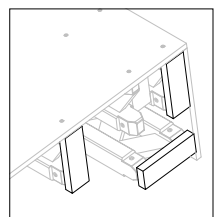
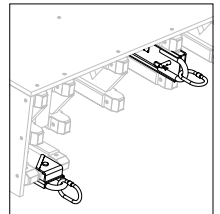
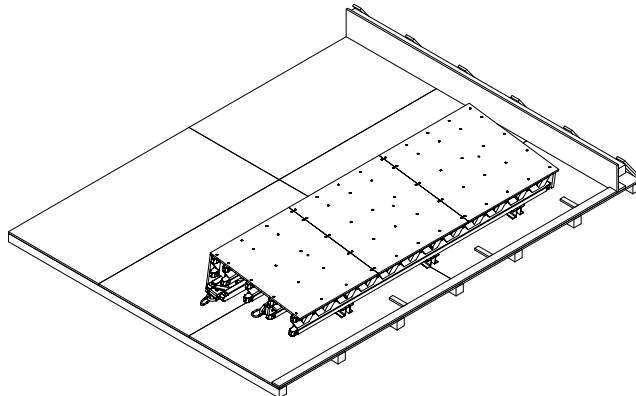
7. Position formlining and then secure. Fix using approx. 10 TSS Torx 6 x 60, or TSS Torx 6 x 60 ZKS pro m². Drill holes with a Ø 20 mm bit.



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



8. If necessary, mount Crane Splice 24 at the top and rubbing boards at the bottom.

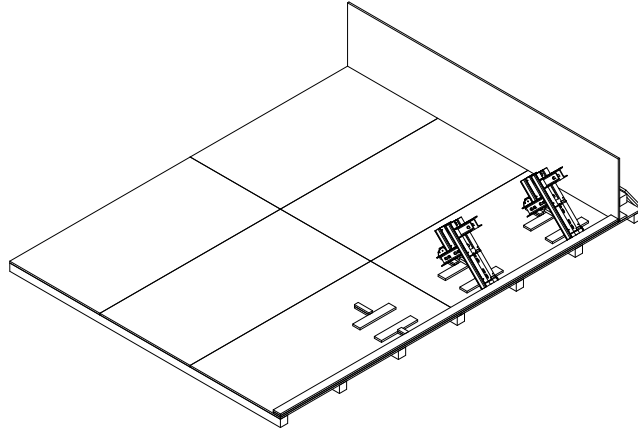


A4 Assembly of Internal Corner with IRZ

1. Lay Internal Corner Waler IRZ on the assembly area. Make sure it is placed directly against the stopping board.



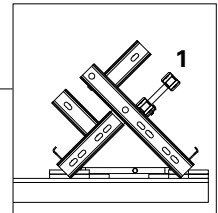
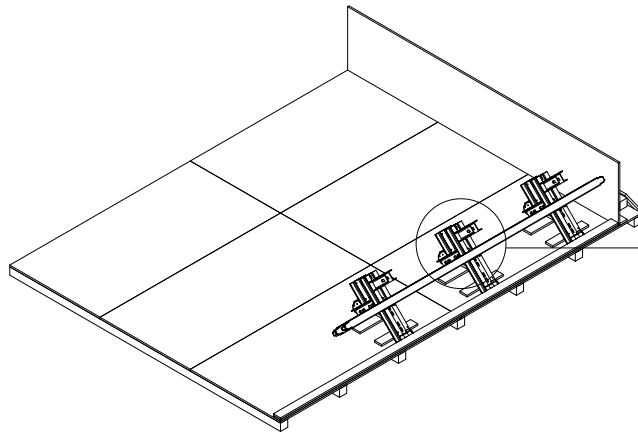
The spindle must be fully spindled out so that a right-angle is created.



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.



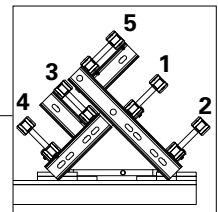
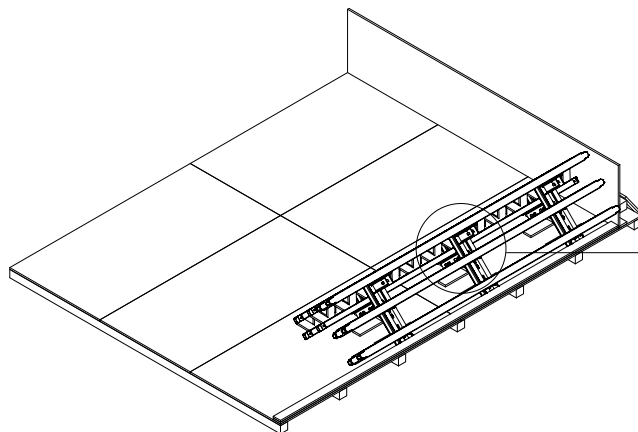
Important: pay attention to the order.



3. Mount girders 2 - 5 in the same way. Fix girders 3 + 5 diagonally to the stubs.



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

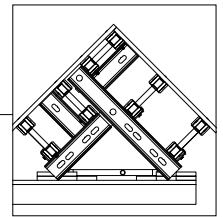
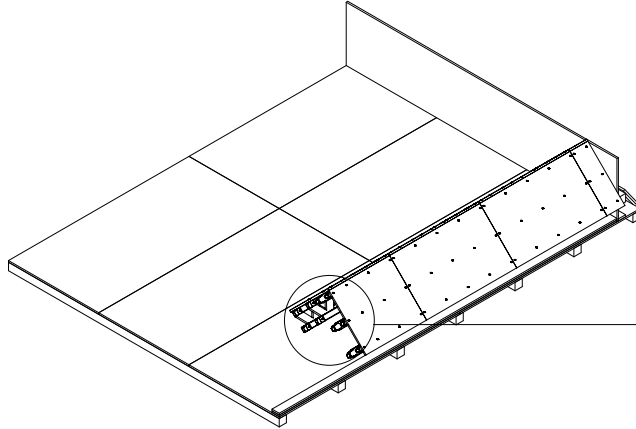


A4 Assembly of Internal Corner with IRZ

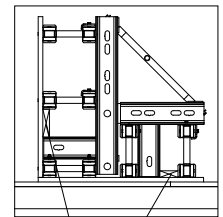
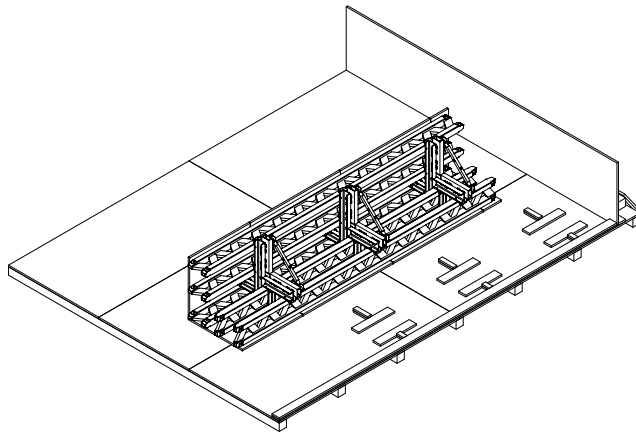
4. Install formlining and fix the first sheet with nails. Formlining is flush with front edge of fifth girder.
Fix using approx. 10 TSS Torx 6 x 60, or TSS Torx 6 x 60 ZKS pro m².



Seal cut edges of the sheets.

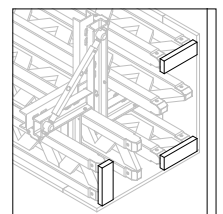
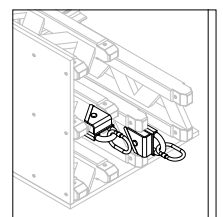
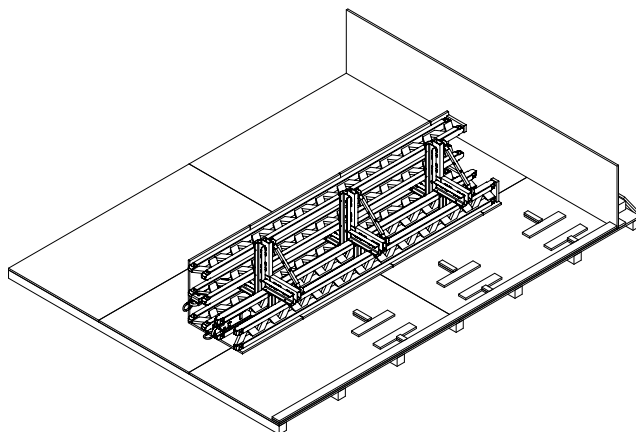


7. Mount spacing timber as additional bracing to each waler and on both sides.



Spacing timber
30 x 126 x 250 mm

8. If necessary, mount Crane Splice 24 at the top and rubbing boards at the bottom.



A5 Filler Element

Filler element

Maximum width compensation:

VKZ 147 = 0.48 m

VKZ 211 = 1.20 m

The filler element (10) is used for longitudinal compensation.

VKZ 147 or VKZ 211 (11) couplings are used for this purpose.

(Fig. A5.01)

Cutting the filler plate

Cut = compensation space

Assembly

1. Maintain girder spacings as with VARIO elements.
2. Plywood projects over left and right edges by 2.5 cm.
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. A5.02)

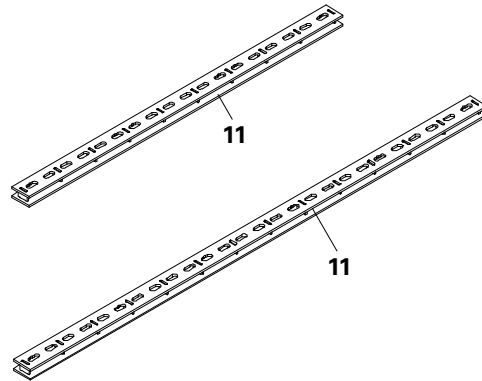


Fig. A5.01

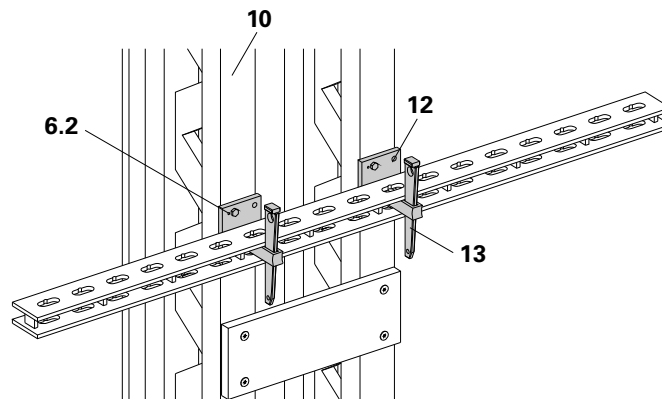
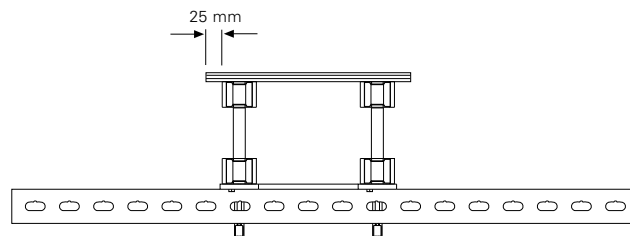


Fig. A5.02



A6 Hook Strap HBU, HBUD, HB 24

**Universal Hook Strap HBU 20-24
Universal Hook Strap 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.

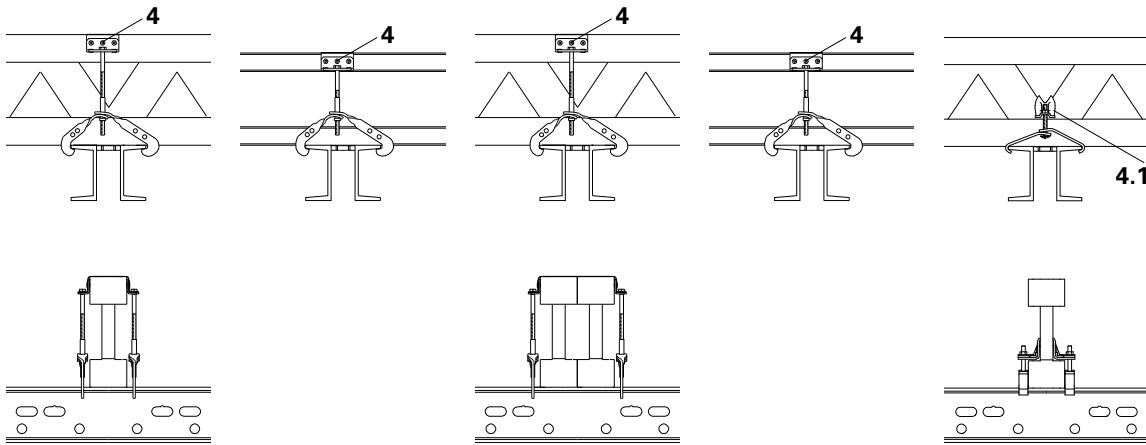
**Universal Hook Strap HBUD 20-24
Universal Hook Strap HBUD 24-28**

- 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**

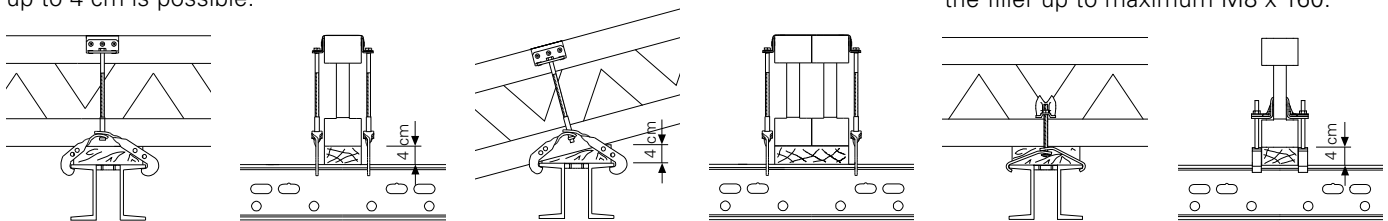
- For 1 x Girder GT 24.
- For Steel Walers SRZ and SRU U100 - U140 or U140 - U160.
- Only to be used on node points.

Standard application:



With filler:

up to 4 cm is possible.



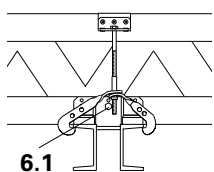
Screw length according to the height of the filler up to maximum M8 x 160.

For edge beam:

with Steel Waler SRZ with end plate and Hook Strap HBU and HBUD.

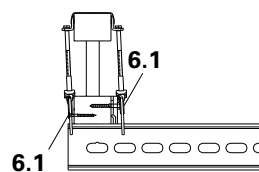
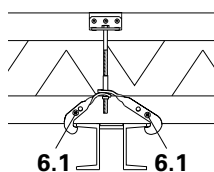
Inner side:

secure girder with 1 x TSS Torx 6 x 60 (6.1).



Outer side:

secure girder with 2 x TSS Torx 6 x 60 (6.1).



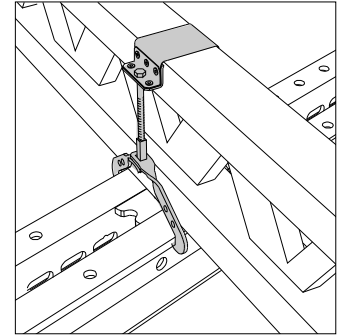
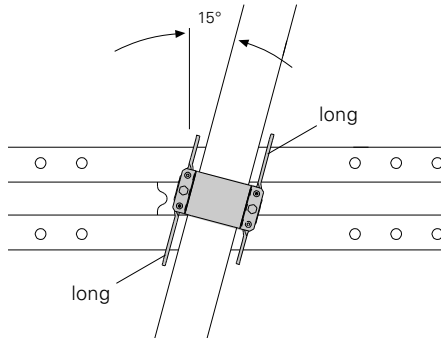
A6 Hook Strap HBU

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.

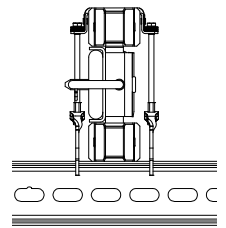
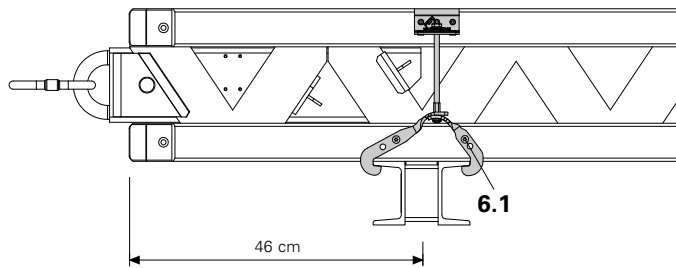


For use with Crane Splice 24

With Hook Strap HBU.



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

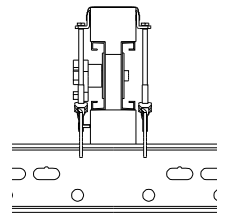
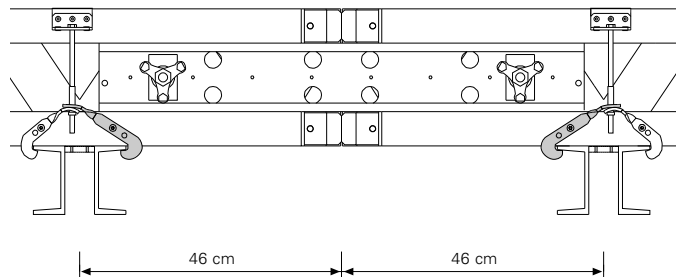


For use with Extension Splice 24-2

With Hook Strap HBU.



The longer hook must point to the extension splice.



B1 Push-Pull Props and Kicker Braces

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}	3.77	2.92	2.30	1.90	1.72	1.49	2.10	1.77	1.54	1.30	
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	8.9	
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
	Angle of resulting vector [°]	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]		2.88	3.65	4.57	5.48	6.02	6.92	9.78	11.52	13.25	15.22	
x = Distance of base plate [m] from rear side of formwork	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	
$q_{stand} = q(z) \times \kappa$ [kN/m ²]		0.41	0.41	0.41	0.41	0.41	0.43	0.45	0.46	0.48	0.50	

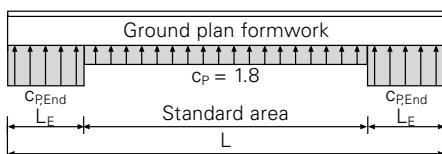
Load assumptions:

- wind loads according to DIN 1055-4:2005-03
- inland, Wind Load Zone 2
- standard area (see diagram below)
- assumed aerodynamic coefficient $c_p = 1.8$
- vertical formwork on ground
- statistical factor $\kappa = 0.7$
- inclination of the push-pull prop to the horizontal 60°
- values are characteristic values.

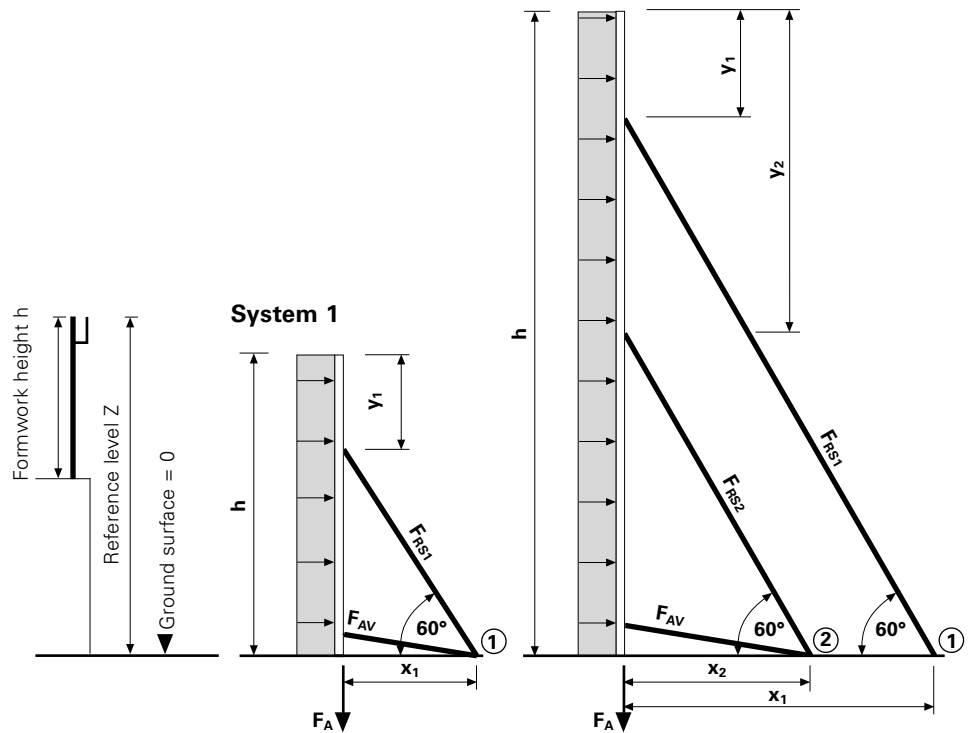
In the end area L_E the following c_{p-} values or wind loads are assumed:

- $L/h \leq 3$: $c_{p, End} = 2.3^*$
- $L/h = 5$: $c_{p, End} = 2.9^*$
- $L/h \geq 10$: $c_{p, End} = 3.4^*$
- L_E = longer end area ($0.3 \times h$)
- h = formwork height
- L = formwork length

*intermediate values are interpolated



System 2



For anchoring (lifting) force $F_A = 1.5 \times V_{Wind} - 0.9 \times G \times h$
 G = surface area weight of the formwork including platforms

B1 Push-Pull Props and Kicker Braces

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. B1.02)

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. B1.03)

Assembly of Push-Pull Props and Kicker Braces

Fix push-pull props and kicker braces with bolts and cotter pins (14.4, 15.1) in the same way to the base plate (16).

Permissible push-pull prop spacing: see Table.

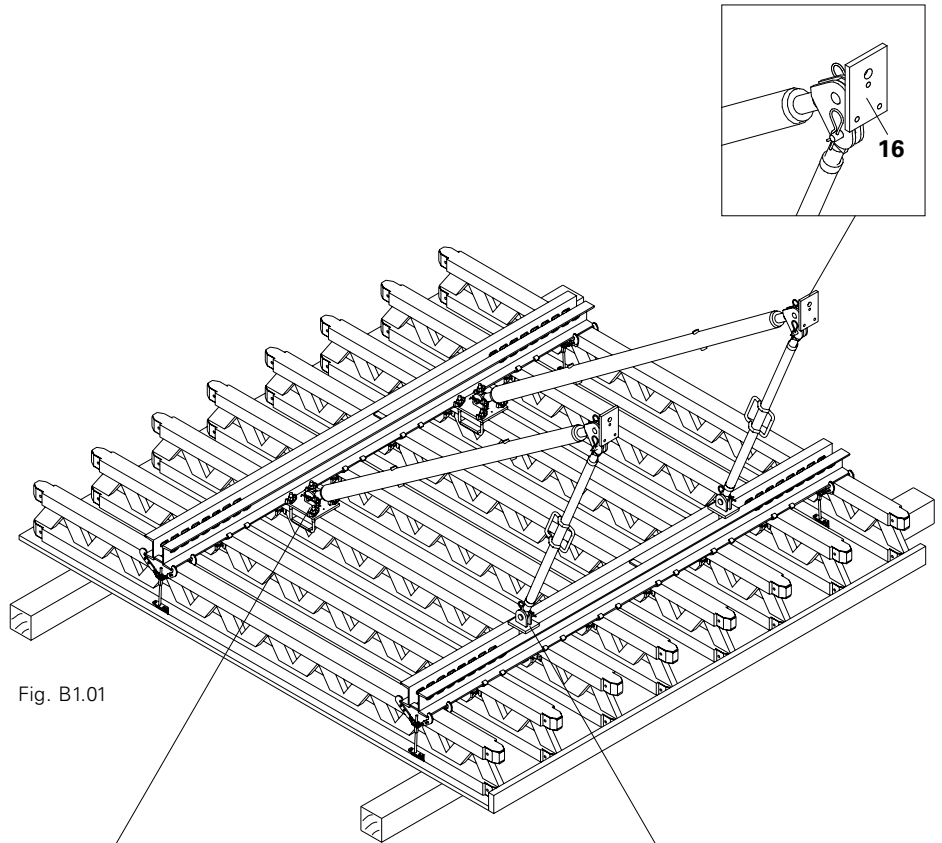


Fig. B1.01

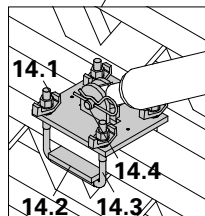


Fig. B1.02

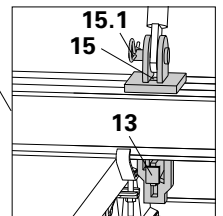


Fig. B1.03

B2 Working and Concreting Platform

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



**Permissible load capacity of 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 boards (22)
 - lateral guardrails (23).
- (Fig. B2.01.1 + B2.01.2)

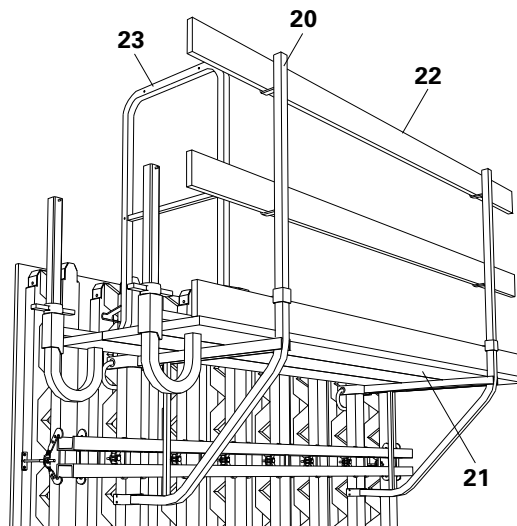
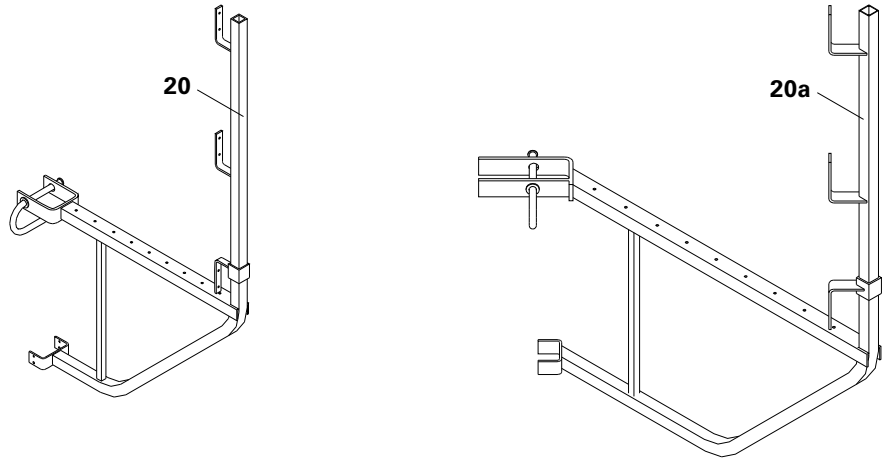


Fig. B2.01.1

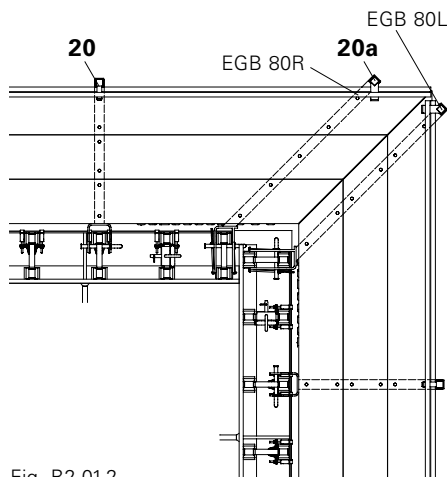


Fig. B2.01.2

B2 Working and Concreting Platform

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

Assembly on horizontally-positioned element

1. Remove locking pin (20.1) and place scaffold bracket with U-profile (20.2) on the girder.
2. Secure locking pin and secure claw (20.3) with nails.
- (Fig. B2.02.1)
3. Fix planking (21) across complete bracket width from below using Torx 6 x 40 (21.1).
4. Mount and secure guardrails including boards (and lateral guardrails if necessary).
- (Fig. B2.02)



When erecting the element, make sure that the guardrails are not damaged by the lifting gear.

(Fig. B2.03)

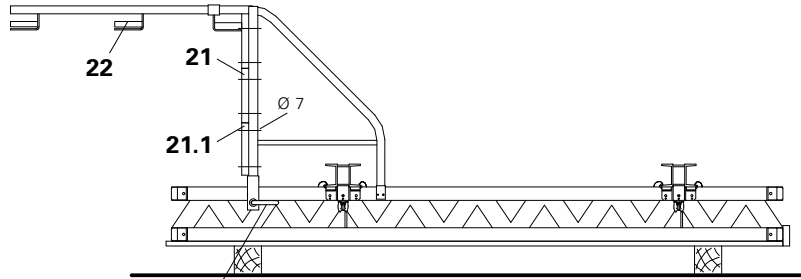


Fig. B2.02

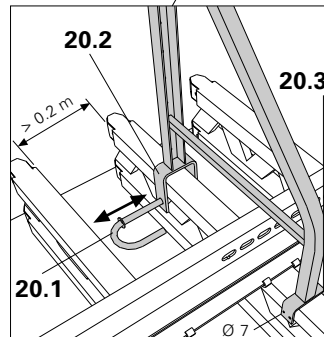


Fig. B2.02.1

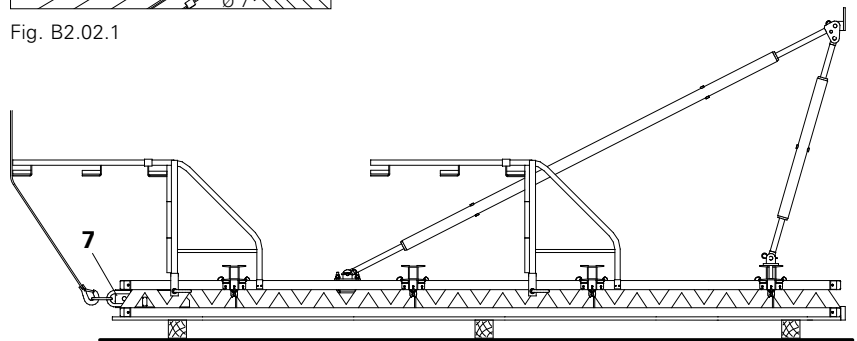
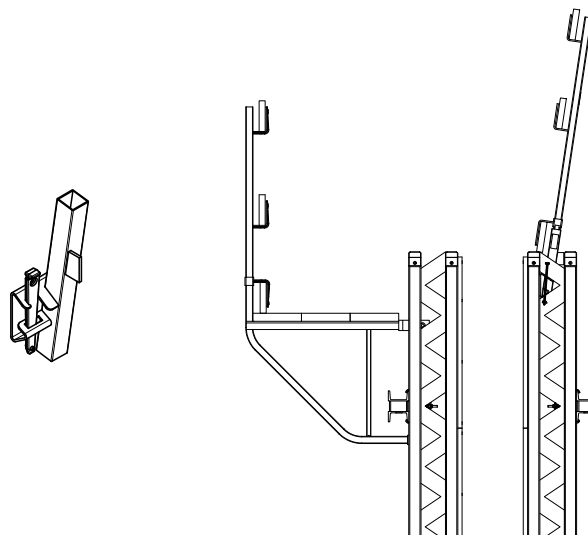


Fig. B2.03

Oppositely-arranged guardrails

- Consisting of:
- Guardrail Post Holder VARIO
 - Guardrail Post HSGP
- For heights > 3.00 m, guardrails are required on the opposite side of the working scaffold.



B2 Working and Concreting Platform

VARIO platform system



Permissible load capacity of 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. B2.04)

Assembly on horizontally-positioned element

With more working scaffold levels, always begin with the lowest platform!

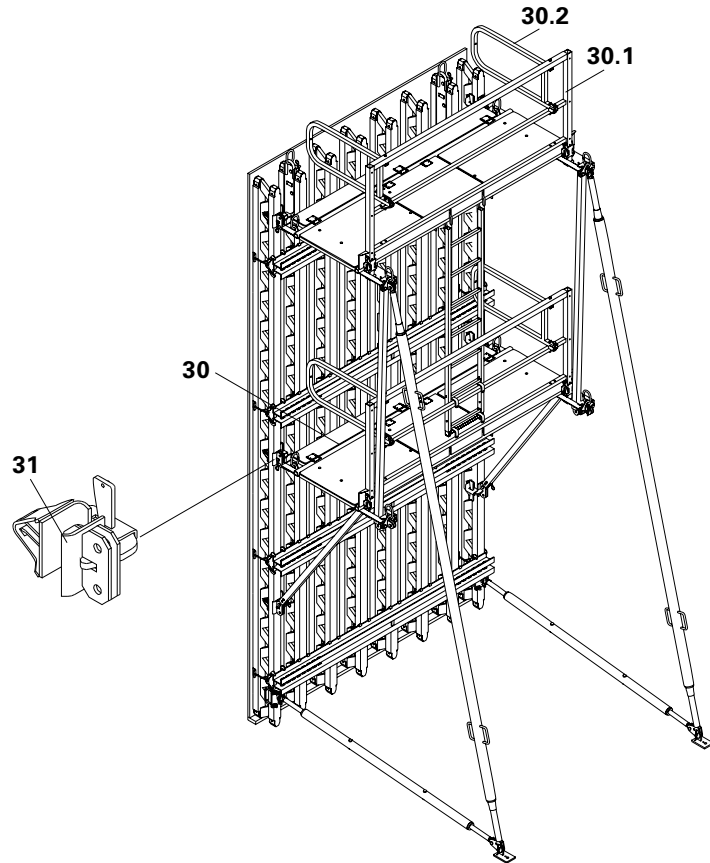


Fig. B2.04

VARIO platform connector:

1. Centre the wedge (31.1) and pull clamps apart (31.2). (Fig. B2.05.1)
2. Push clamps from the inside over the girder chord. (Fig. B2.05.2)
3. Secure wedge. (Fig. B2.05.2)
4. Mount additional platform connectors. (Fig. B2.05.3)

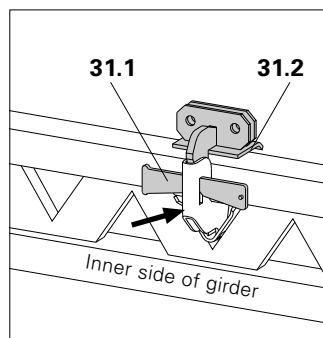


Fig. B2.05.1

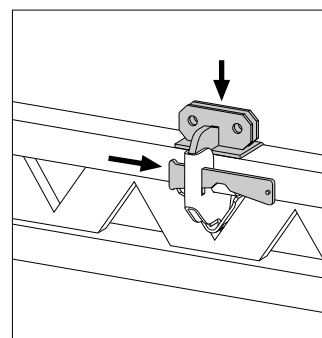


Fig. B2.05.2



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

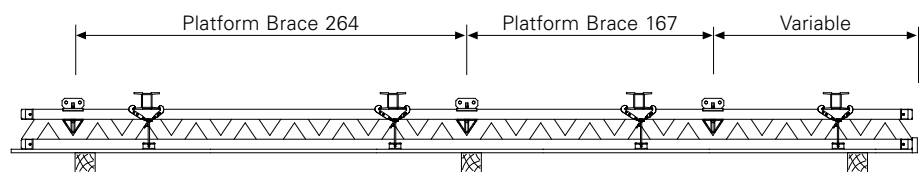


Fig. B2.05.3

B2 Working and Concreting Platform

VARIO platform system

Assembly of the lowest platform

1. Attach platform (30) to lifting gear and transport to assembly level.
2. Remove bolts (30.3).
3. Insert splice (30.4) into the platform connector (31) and secure in the lowest drilled hole.
- (Fig. B2.06 + B2.06.1)
4. Attach Platform Braces 167/264 (32/33) to the platform beam.
5. Insert splice in top drilled hole of the platform connector.
- (Fig. B2.07 + B2.07.1 + B2.07.2)
6. Fold out guardrail (30.1) and lock pawl (30.5) in position.
7. Fold out end handrail frame (30.2).
8. Connect push-pull props and kicker braces.
- (Fig. B2.08 + B2.08.1)
9. Attach lifting gear to front crane eyes (30.6).
- (Fig. B2.08.2)

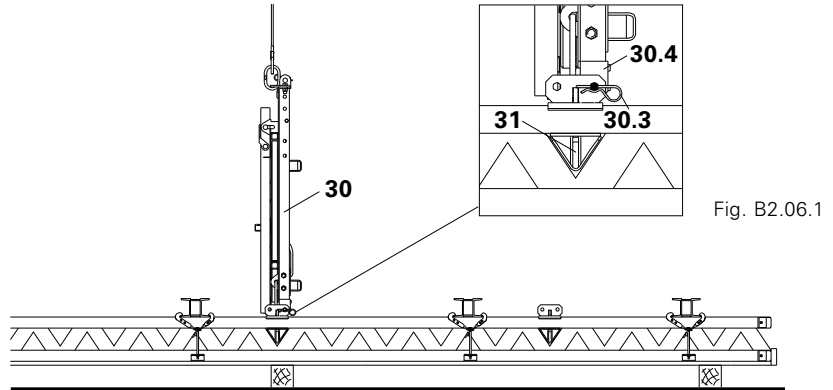


Fig. B2.06

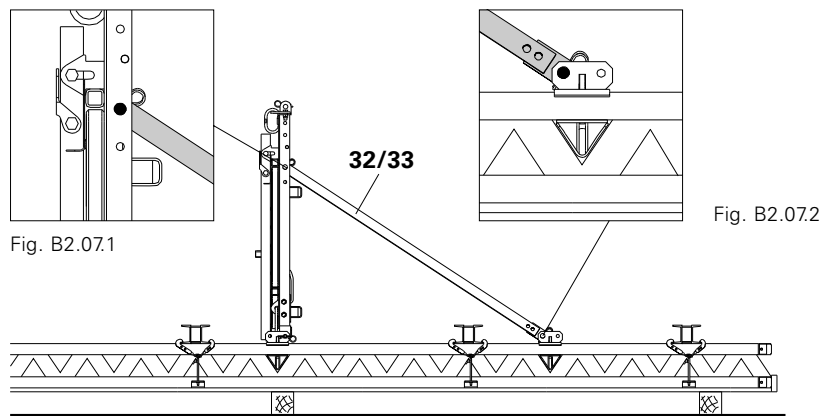


Fig. B2.07



Cannot be used with element height = 4.20 m.



Visual control of pawl!
Access hatch must remain closed!

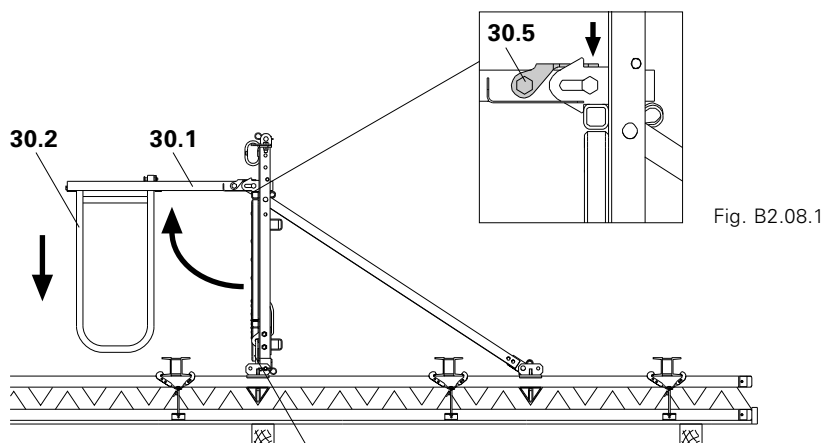


Fig. B2.08

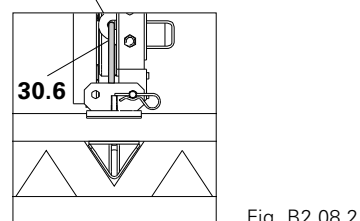


Fig. B2.08.2

B2 Working and Concreting Platform

VARIO platform system

Assembly of second and additional platforms

1. Attach platforms with pins (30.3) and cotter pin to platform connector.
(Fig. B2.09 + B2.09.1)

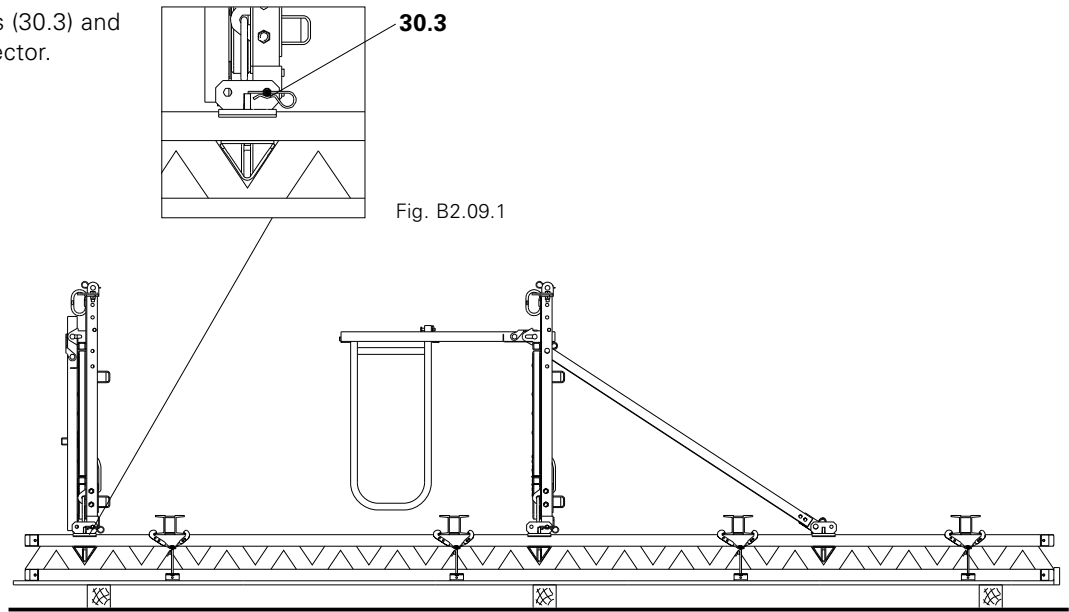


Fig. B2.09.1

Fig. B2.09

2. Attach Platform Strut 246 (33) to top platform beam.

(Fig. B2.10 + B2.10.1)

3. Attach Platform Strut 264 vertically to the bottom platform beam.

(Fig. B2.10 + B2.10.2)



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

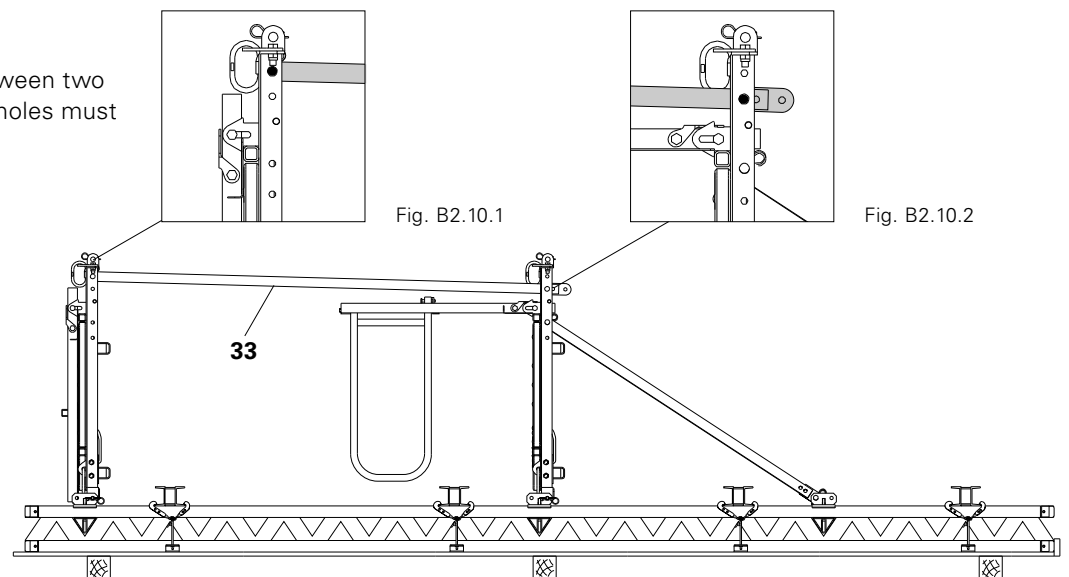


Fig. B2.10.1

Fig. B2.10.2

Fig. B2.10

B2 Working and Concreting Platform

VARIO platform system

Assembly of second and additional platforms

4. Mount ladder (34).
(Fig. B2.11 + B2.11.1 + B2.11.2)
 5. Continue with Points 6 - 9 of the lowest platform.
(Fig. B2.12)
- Fix kicker brace: see B1.

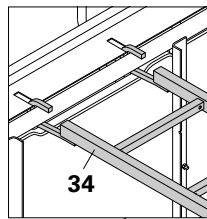


Fig. B2.11.1

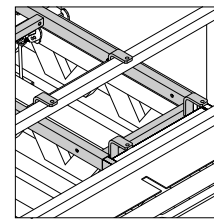


Fig. B2.11.2

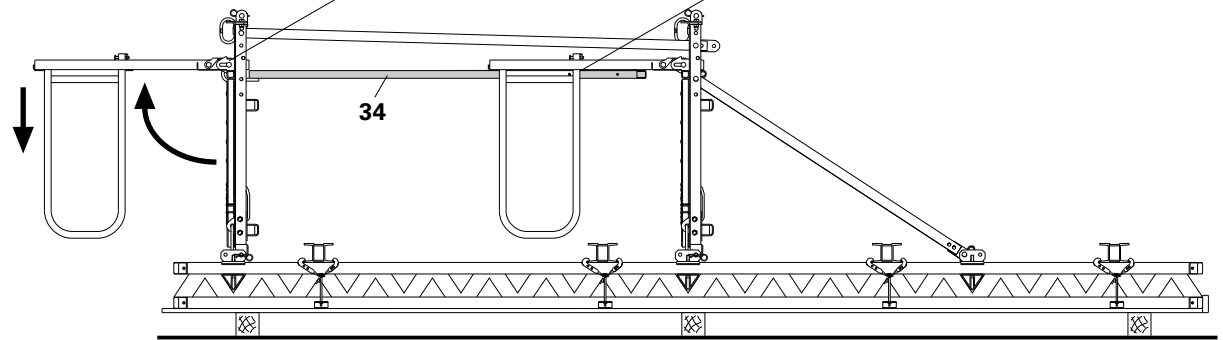


Fig. B2.11



Additional diagonal Platform Braces 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 Braces 167 must be replaced by Platform Braces 264 (33) on the lowest platform.
(Fig. B2.12)

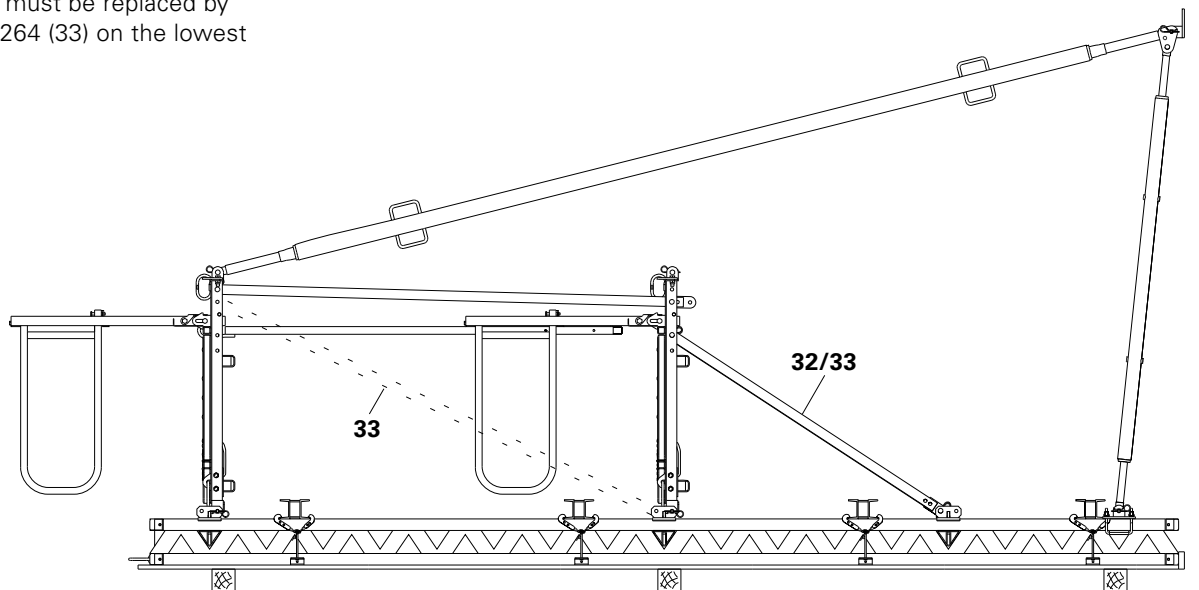


Fig. B2.12

B2 Working and Concreting Platform

VARIO platform system Platform Bracket VARIO VBK 90



Permissible load capacity of 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 (36) is fitted on the internal corner.
(Fig. B2.14)

Assembly on horizontally-positioned element

If possible, mount the platform bracket on the compensation side.

1. Pull out locking pins (35.1).
2. Place platform bracket with U-profile (35.2) on the girder and secure with locking pins.
3. Secure 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 (36), place handrail (22) including boards and fix in position.
(Fig. B2.16)



Fig. B2.15.1 with IRZ (42a)
Fig. B2.15.2 with IRZ (42b)

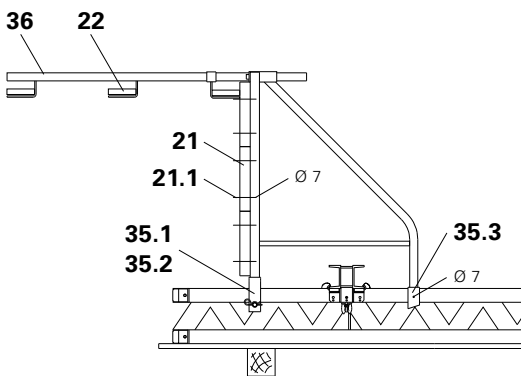


Fig. B2.16

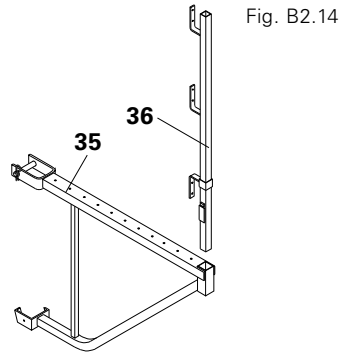


Fig. B2.14

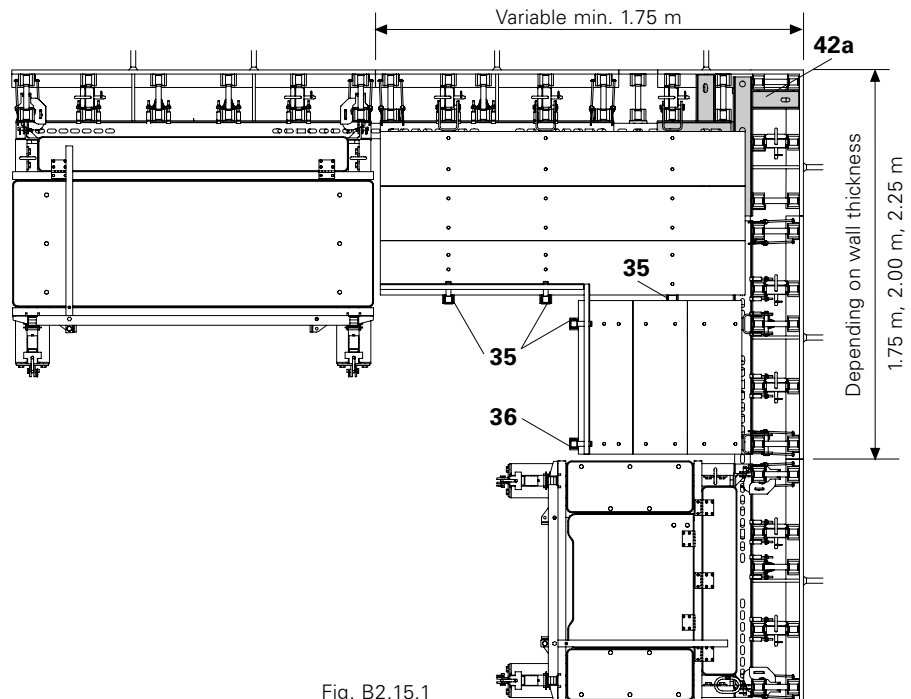


Fig. B2.15.1

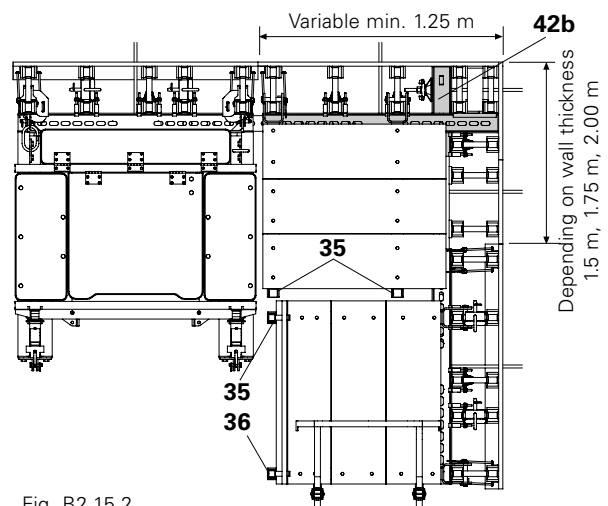


Fig. B2.15.2

B2 Working and Concreting Platform

VARIO platform system Platform on external corner



Permissible load capacity of 150 kg/m².

Assembly

1. Fold out handrail (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.

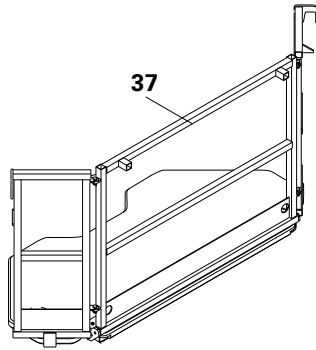


Fig. B2.17

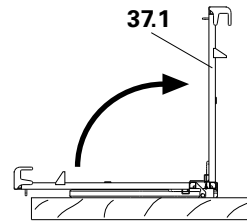


Fig. B2.18

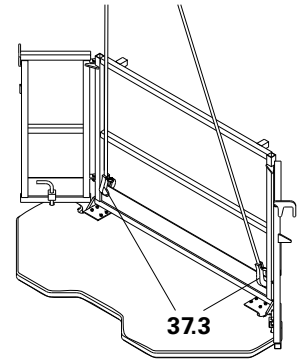


Fig. B2.19

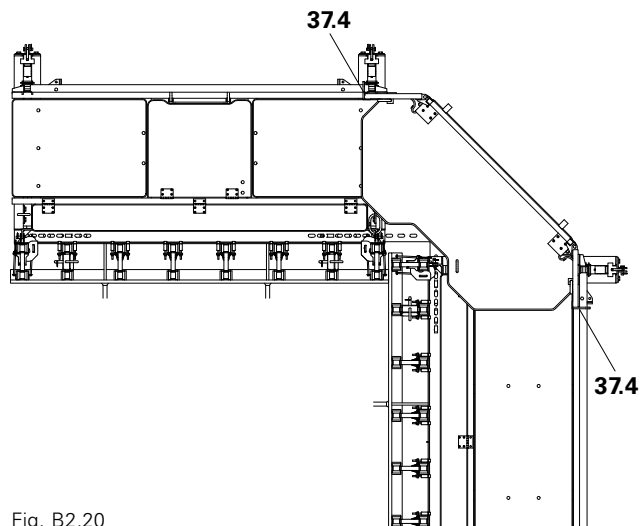


Fig. B2.20

Erecting and positioning



Permissible bearing capacity: load bearing point 1100 kg.

1. Attach lifting gear to crane eyes (30.6) of the platform and erect or position the formwork unit.
2. Secure formwork unit, e.g. with Anchor Bolt PERI 14/20 x 130 or equal. (Fig. B2.21)



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

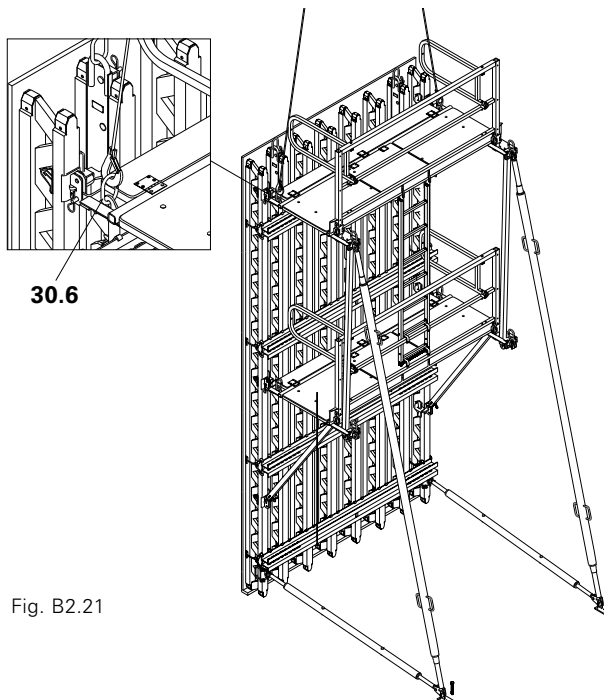


Fig. B2.21

B3 Crane Lifting Unit, lifting by crane

Crane Splice 24



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

Assembly

- mount Crane Splice 24 (7a) on the horizontally-positioned element
- always attach 2 pieces symmetrically to the centre of gravity. (Fig. B3.01)

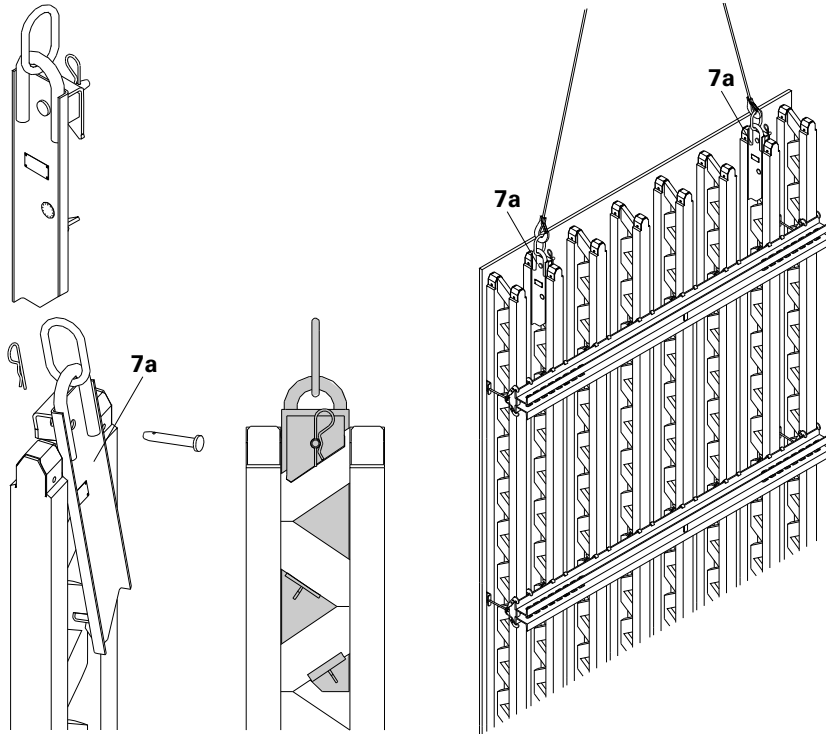


Fig. B3.01

Crane Eye 24 right/left



Permissible load-bearing capacity
700 kg.

Assembly

- drill holes into the girder chord: $\varnothing 12$ mm
- mount Crane Eye 24 (7b) to horizontally-positioned element
- always attach 2 pieces symmetrically to the centre of gravity
- mount crane eye to outside of girder. (Fig. B3.02)

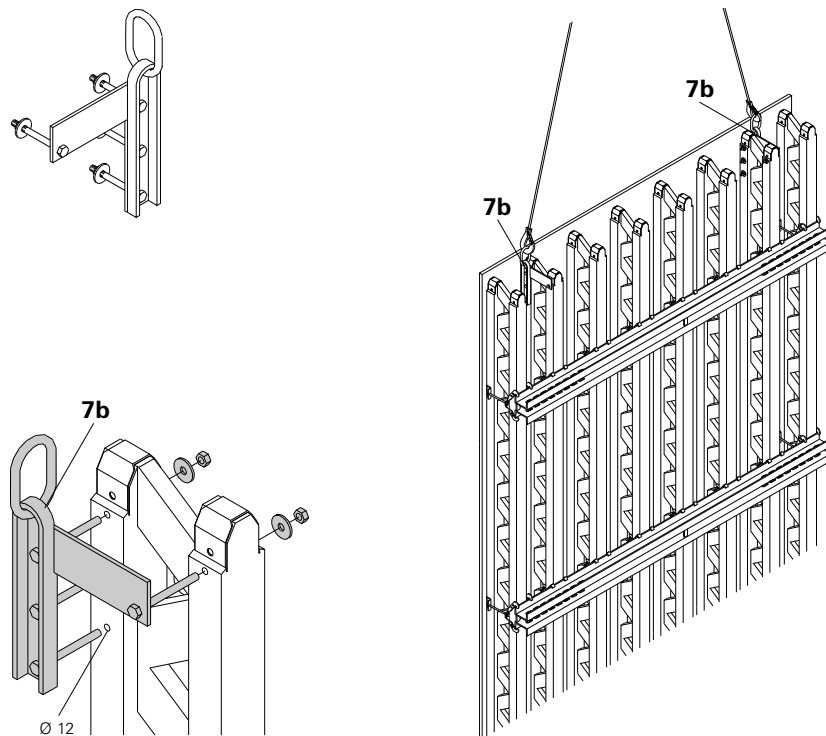


Fig. B3.02

B3 Crane Lifting Unit, lifting by crane

Lifting Unit 2 t / GT 24



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

Assembly

- mount lifting Unit 2 t / GT 24 (7c) on horizontally-positioned element
- always attach 2 pieces symmetrically to the centre of gravity.
 (Fig. B3.03)

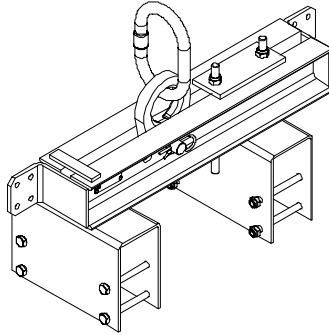
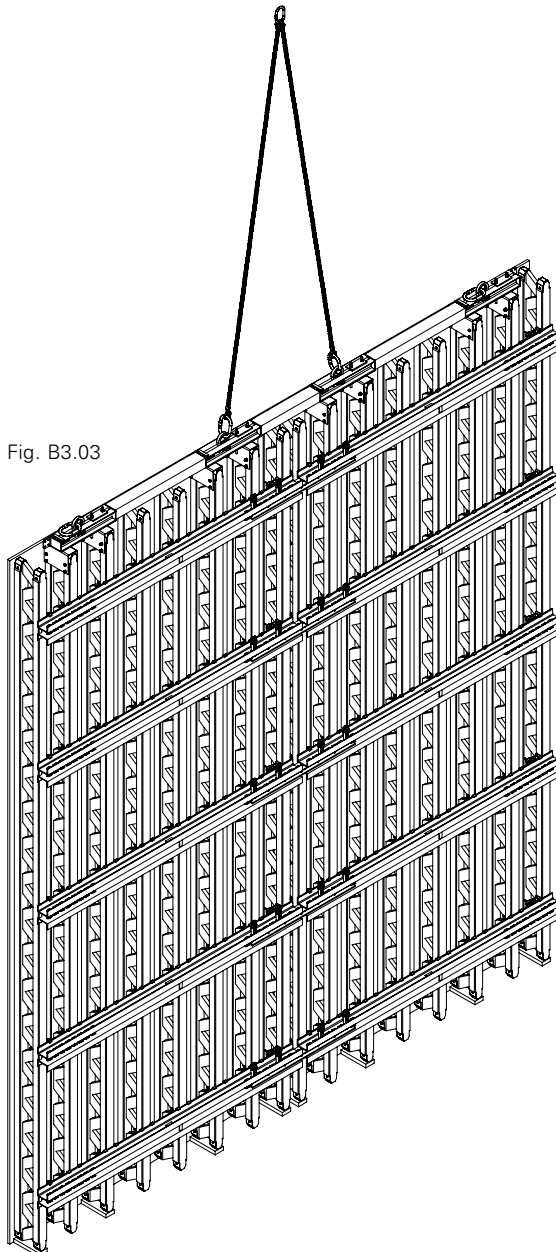


Fig. B3.03



B4 External Corners

With Outside Corner Coupling AKZ 85/85

Installation

The external corner is formed using two VARIO panels $b = 250$ cm.
 Panel ① with Outside Corner Coupling AKZ,
 Panel ② 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 element from top to bottom.

Erection

1. Position element with outside corner coupling and secure.
2. Position second element and adjust to suit wall thickness.
3. Remove KZ securing wedge (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)

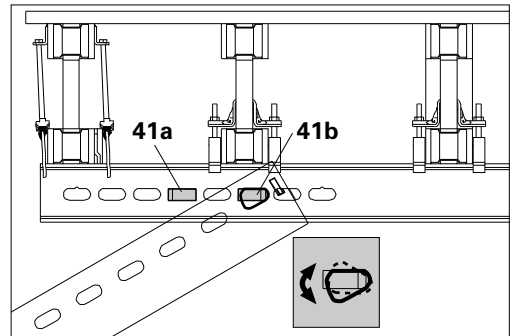
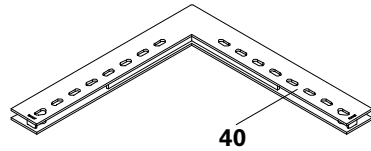


Fig. B4.01

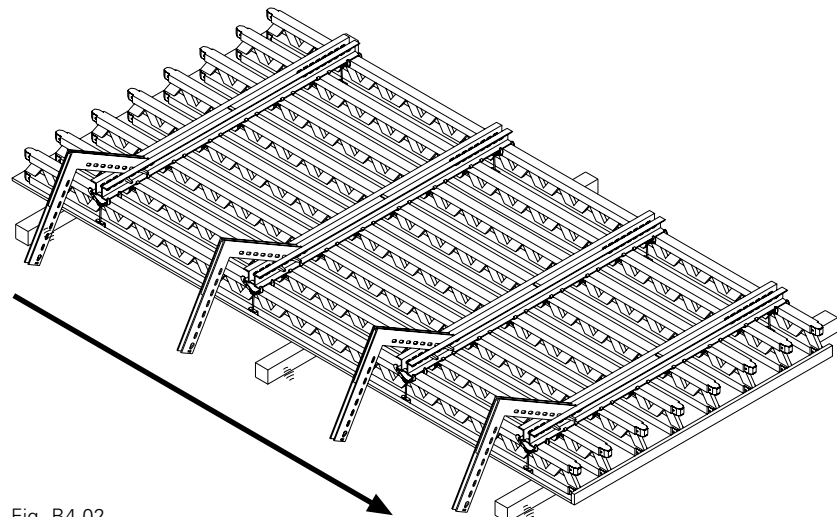


Fig. B4.02

Fig. B4.03

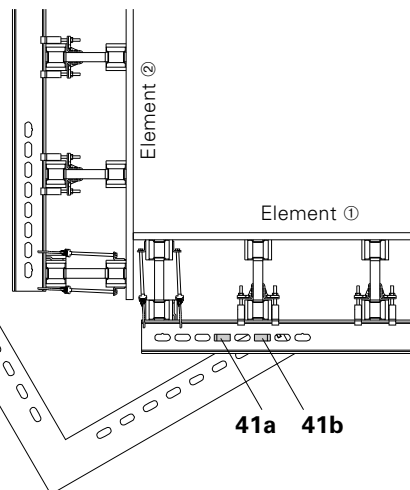
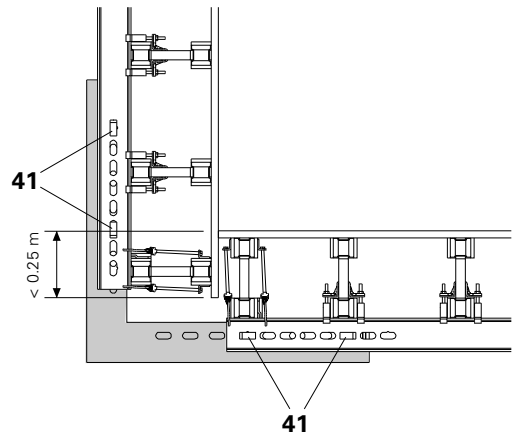


Fig. B4.04



B5 Internal Corners

With Internal Corner Waler IRZ 75/75

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

Installation

Adjust Internal Corner Waler IRZ with the spindle (41).

Corner right = Fig. B5.01

Corner left = Fig. B5.02



NB: mounting positions of internal corner waler and filler element!

Striking

Untighten spindle (41). This results in a striking clearance of approx. 24 cm. (Fig. B5.03)



After striking, re-adjust spindles (41) to original positions.

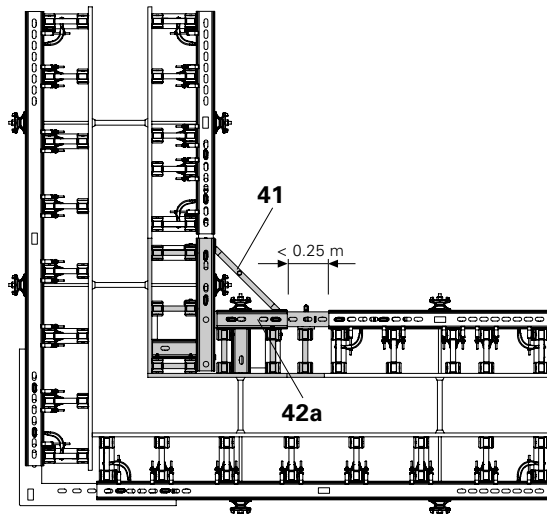
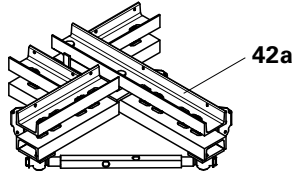


Fig. B5.01

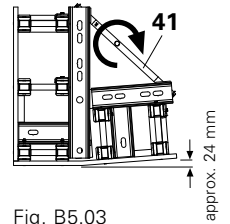


Fig. B5.03

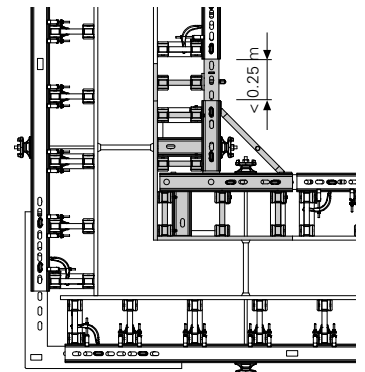


Fig. B5.02

With VARIO Steel Waler VSRZ



NB: mounting positions of steel waler and filler element.

Element with Steel Waler VSRZ (42b) and filler element.

Corner right = Fig. B5.04.1

Corner left = Fig. B5.04.2

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. B5.04)

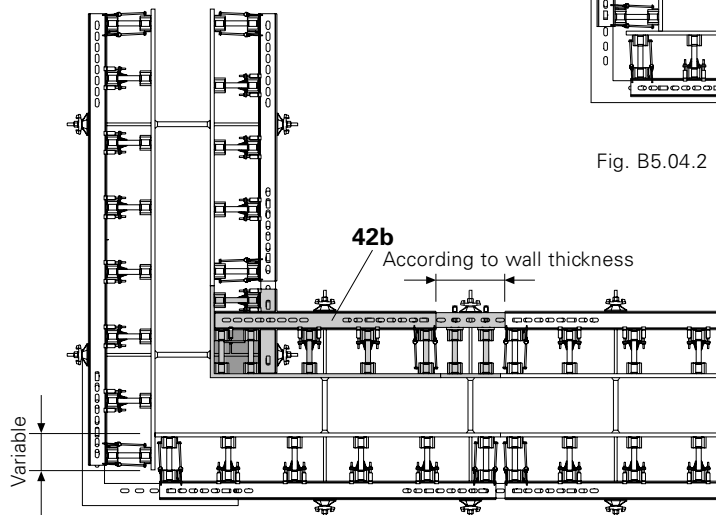
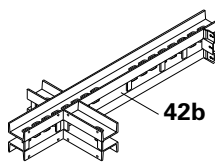


Fig. B5.04.1

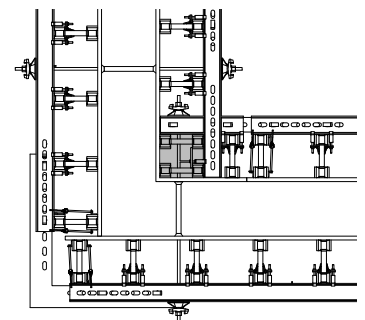


Fig. B5.04.2

B6 Element Connections

Element coupling with Coupling VKZ 99

Element 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 element joint (b)
= wedge pushes

(Fig. B6.01)

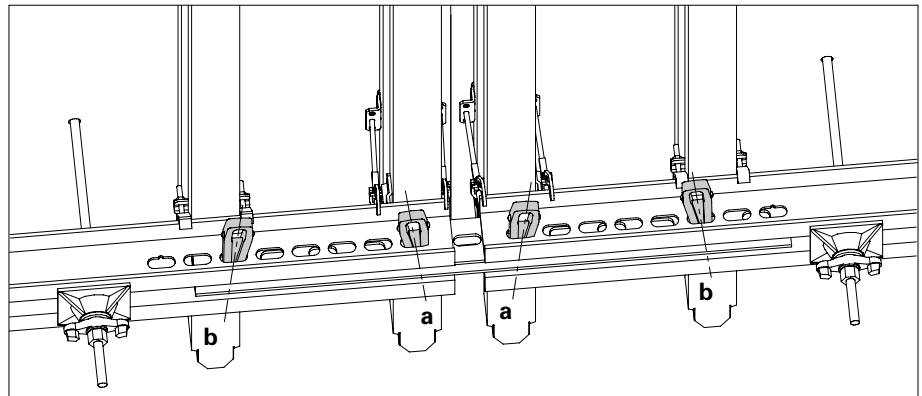
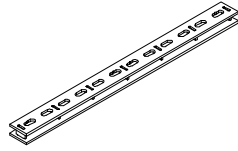
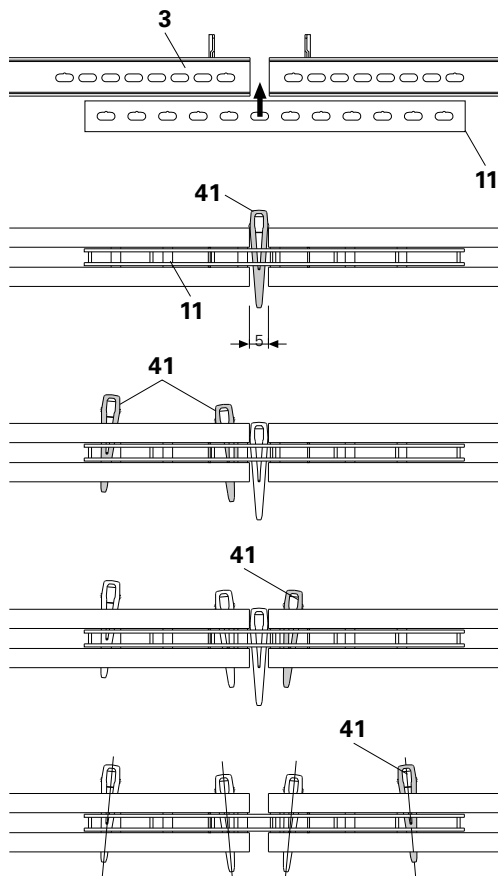


Fig. B6.01

Installation

The coupling is fitted so that the cut-outs point toward the concreting side. This results in a flush element 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.



An even number of holes (four) must be left between the wedges!

B7 Length Compensations

Length compensation with Coupling VKZ 147, VKZ 211

Length compensations are formed with the Coupling VKZ 147 (11.1) and VKZ 211 (11.2) 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. Hammer in tightly two KZ wedges (41) on one side.

Spacing: four holes.

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

Spacing: four holes.

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

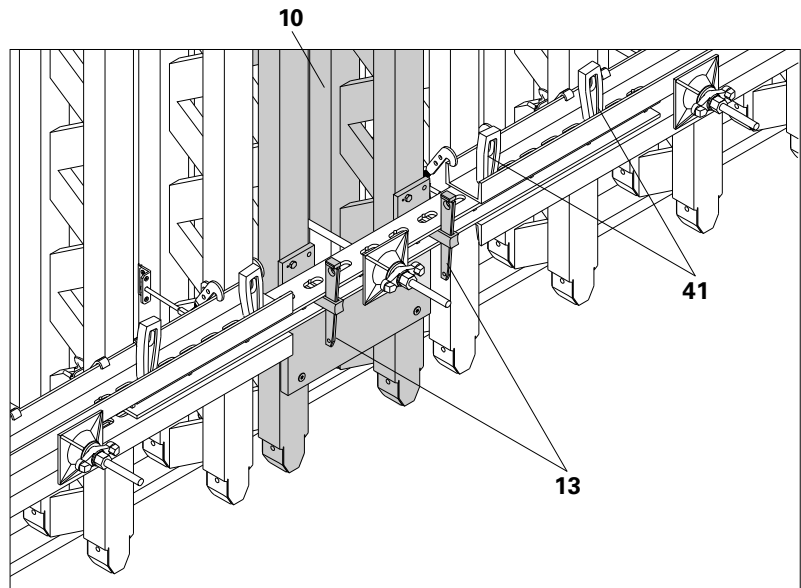
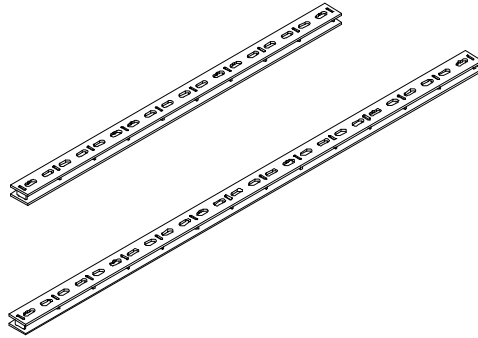


Fig. B7.01

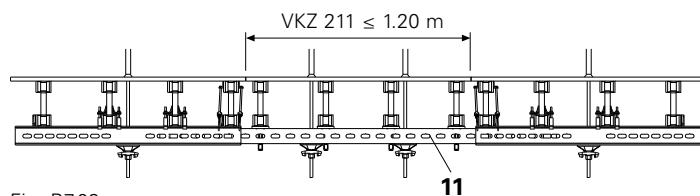
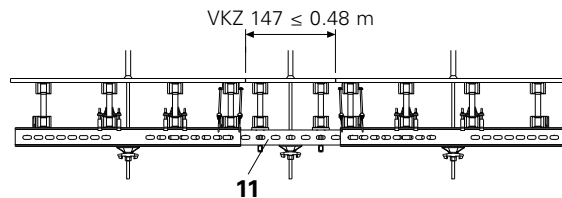


Fig. B7.02

B8 Anchoring

With DW 15, DW 20, DW 26.5 tie systems



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 concreting speed.
- Vertical tie spacings conform to water positions and loads.

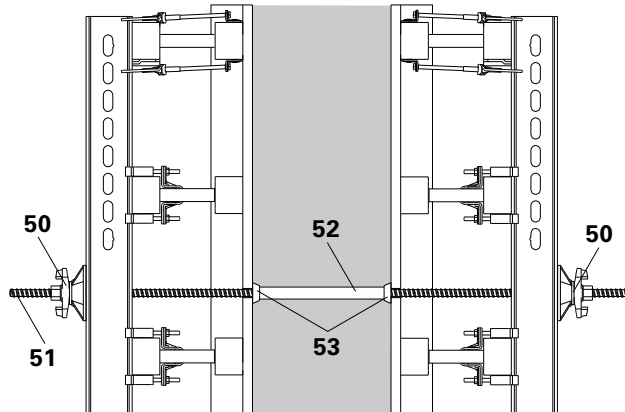


Fig. B8.01

Installation with DW 15

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

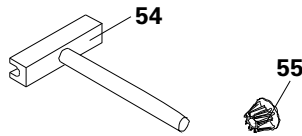


Fig. B8.02

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.

B9 Stopend Formwork

With Coupling VKZ 99



Permissible 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. Pull wedge before push wedge. (Fig. B9.01)

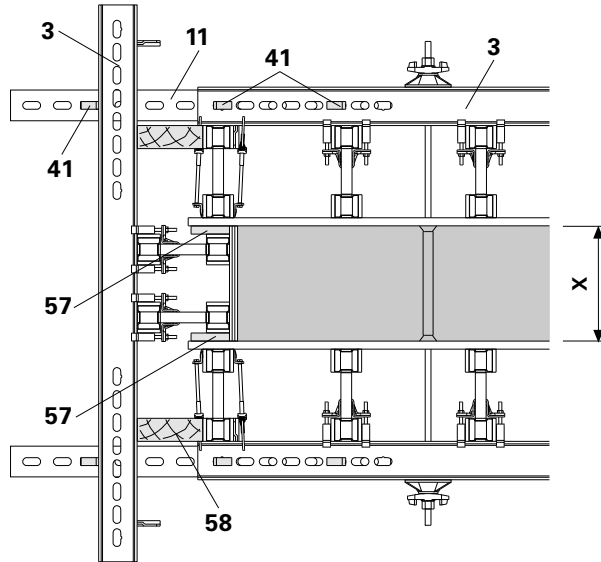


Fig. B9.01

With Stopend Tie



Permissible tension force 30 kN.

Installation

1. Insert stopend tie (56) into the Steel Waler SRZ (3) of the element.
2. Fix stopend tie by hammering in KZ wedges (41) tightly.
3. Screw in tie rod using tie rod wrench up to stopper in threaded sleeve (56.1).
4. Adjust wingnut pivot plate (50.1) accordingly.
5. Place prefabricated stopend element against limit plate (57).
6. Unscrew outside wingnut pivot plate (50.2) and tighten stopend element. (Fig. B9.02)

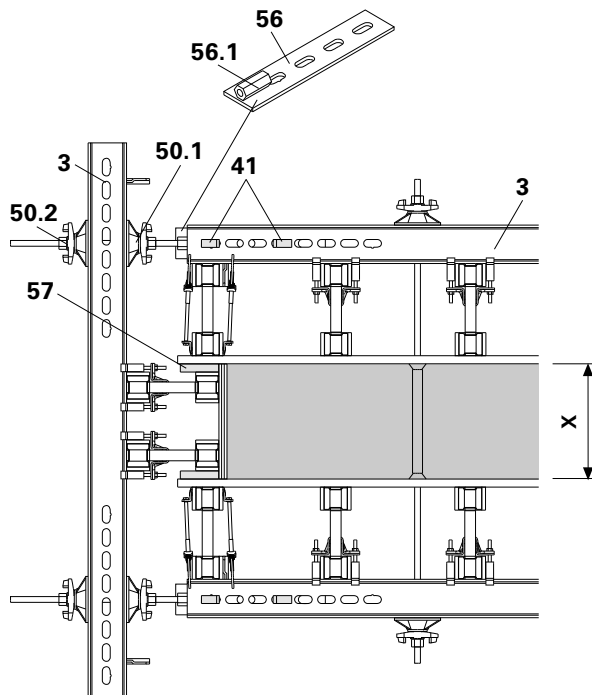


Fig. B9.02

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

B10 Height Extensions

With Extension Splice 24 up to a maximum 8.00 m

The required number of Extension Splice 24 (59) depends on the height of the element.

Example; element width 2.50 m

$h \leq 5.00$ m: 4 extension splices.

(Fig. B10.01)

$h > 5.00$ m: 8 extension splices.

(Fig. B10.02)



Static Values

$$M_{perm.} = 1.73 \text{ kNm}$$

$$Q_{perm.} = 0$$

or

$$M_{perm.} = 0$$

$$Q_{perm.} = 5 \text{ kN}$$

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

Static values when moving VARIO GT 24 elements

$$Z_{perm.} = 5.7 \text{ kN}$$

$$M = 0$$

$$Q = 0$$

Assembly on horizontally-positioned element



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

The connection is now tight, rigid and flush.

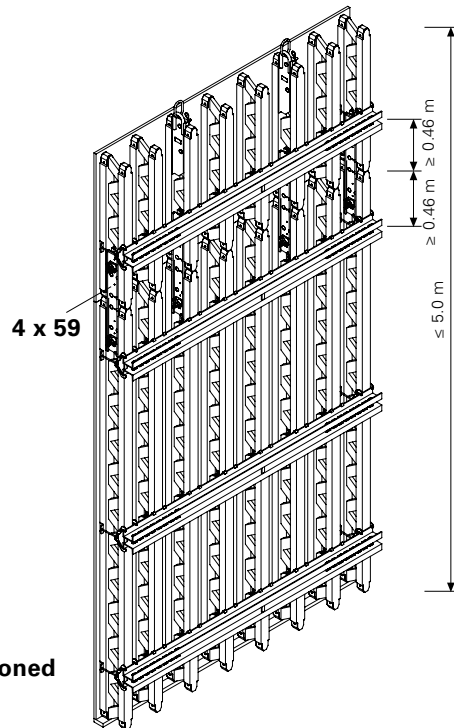


Fig. B10.01

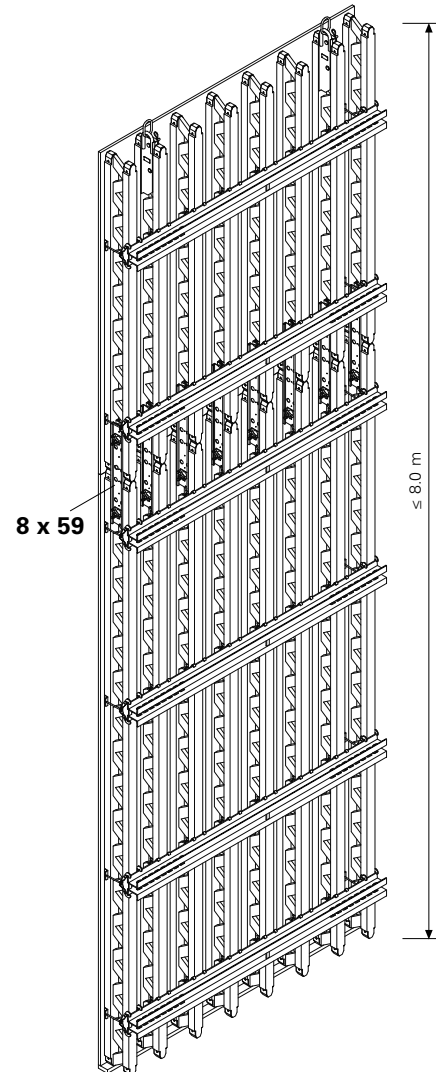


Fig. B10.02

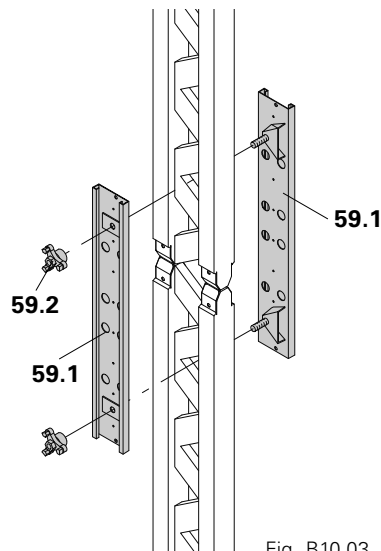


Fig. B10.03

B10 Height Extensions

With overlap girders up to a maximum 11.90 m

The number of girders depends on the element widths and heights: see PERI Design tables.

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

With additional overlap 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 horizontally-positioned element.

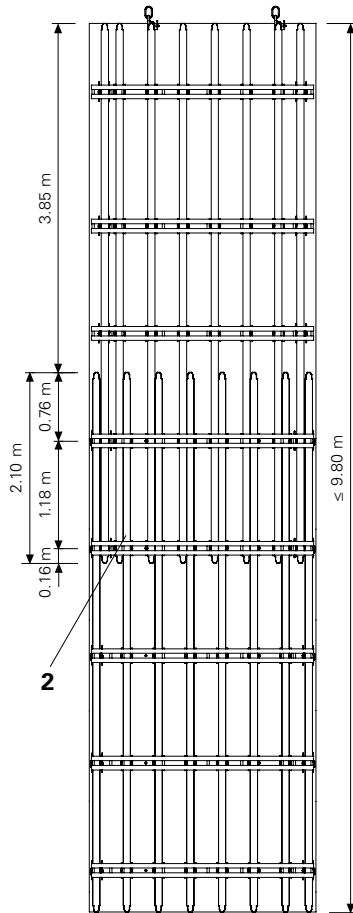


Fig. B10.04

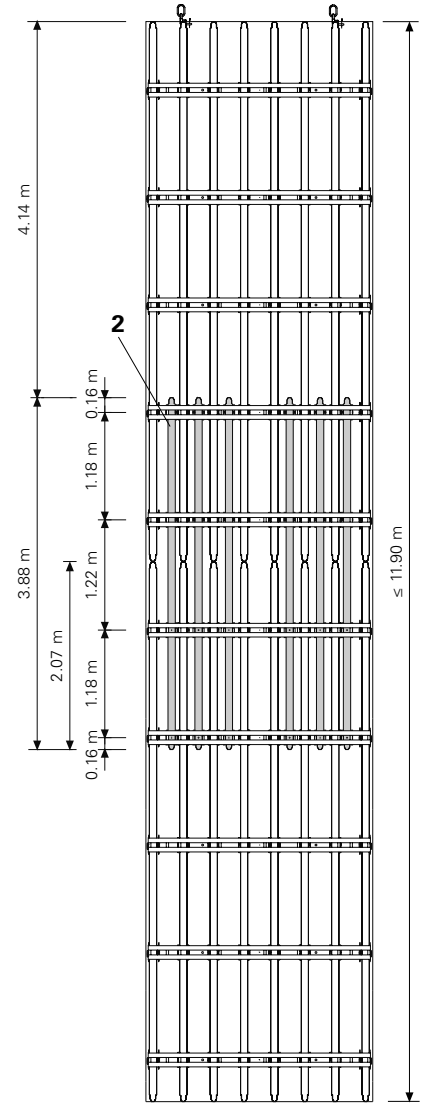


Fig. B10.05

With Extension Splice 24 and timbers up to a maximum 60 cm (Fig. B10.06)

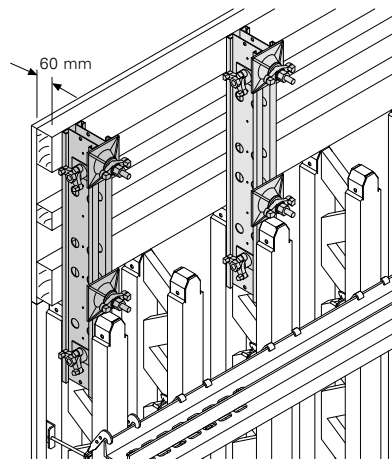


Fig. B10.06

C1 T-Junctions 90°, Obtuse Wall Connection

T-junctions 90°



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

With inner compensation

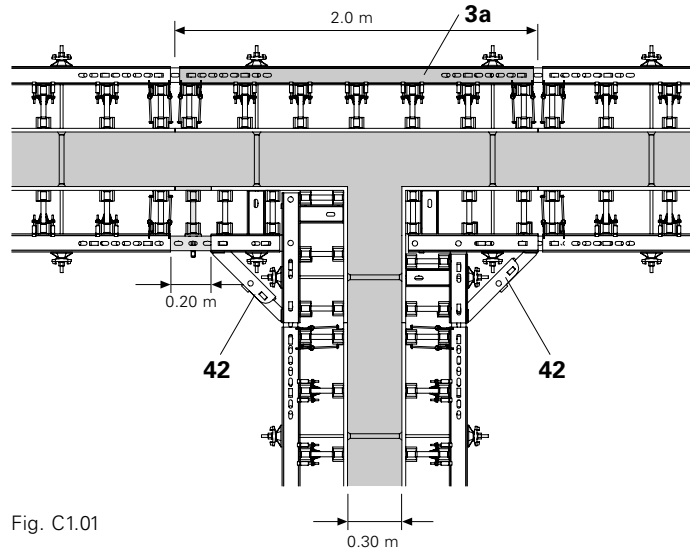
Example with a wall thickness of 30 cm.

Components:

Steel waler SRZ (3a).

Internal Corner Waler IRZ (42).

(Fig. C1.01)



Without compensation

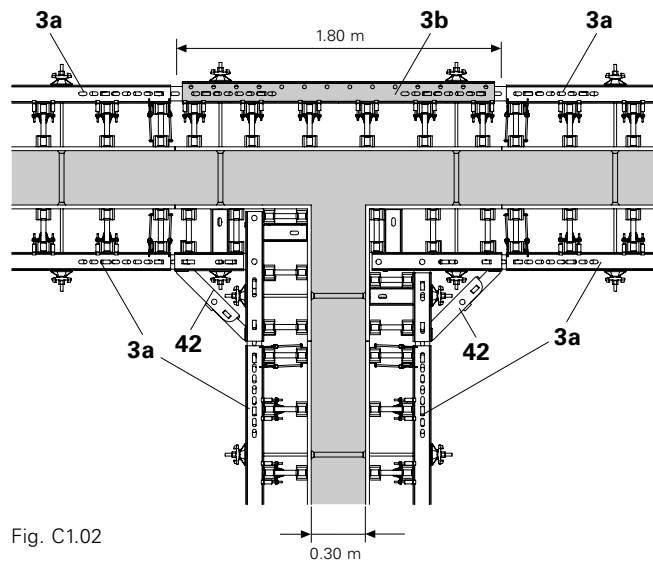
Example with a wall thickness of 30 cm

Components:

Steel Waler SRU (3b).

Internal Corner Waler IRZ (42).

(Fig. C1.02)



Obtuse wall connection

The tie position is always moved by 62.5 cm.

(Fig. C1.03)

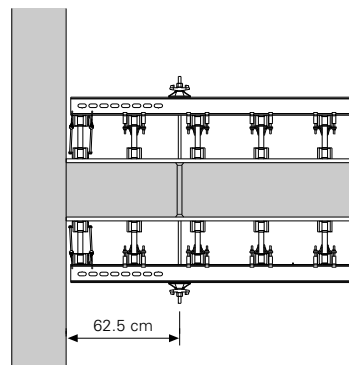


Fig. C1.03

C2 Oblique Angle

Oblique angle with the 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.

Utilisation:

- 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 GKZ 76/76 articulated coupling is normally externally mounted, the smaller GKZ 60/60 articulated coupling on the inside.

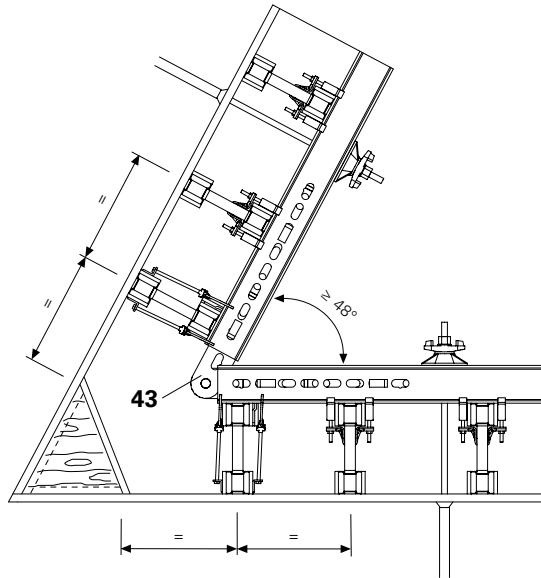


Fig. C2.01

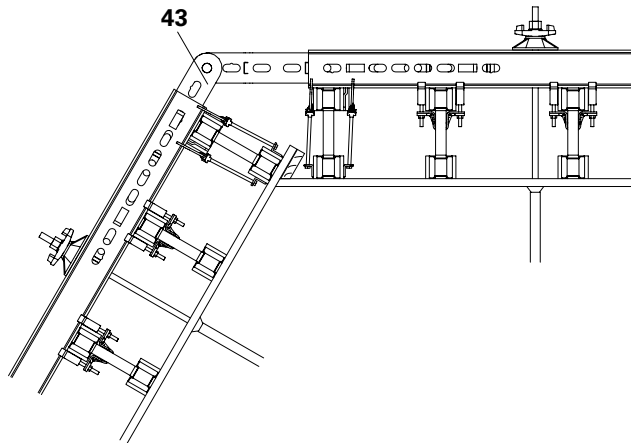


Fig. C2.02

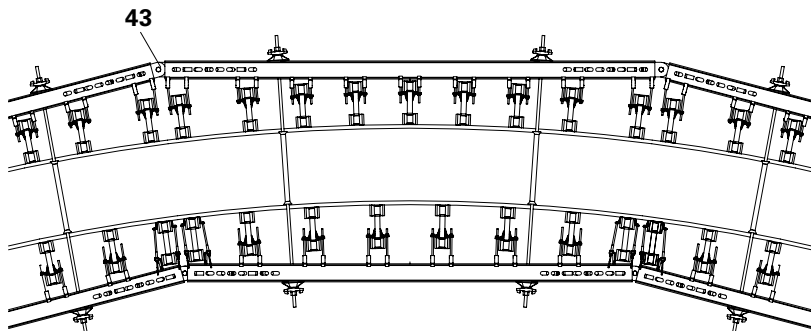


Fig. C2.03

C3 Shafts

Quick Release Corner SSE

For easy striking of shaft formwork and in tight spaces.

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

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

Shuttering

1. Position internal element 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 element. (Fig. C3.04)
4. Remove quick release corner.

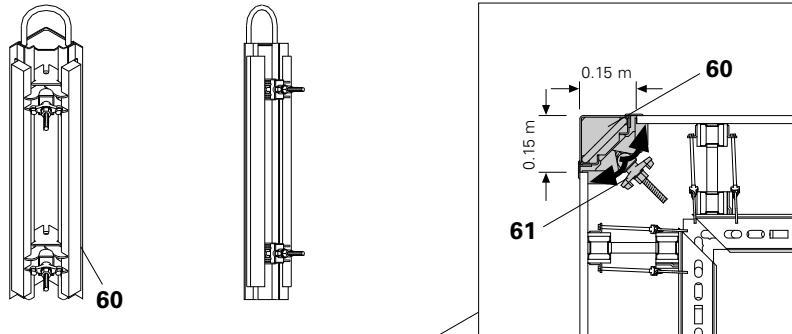


Fig. C3.02

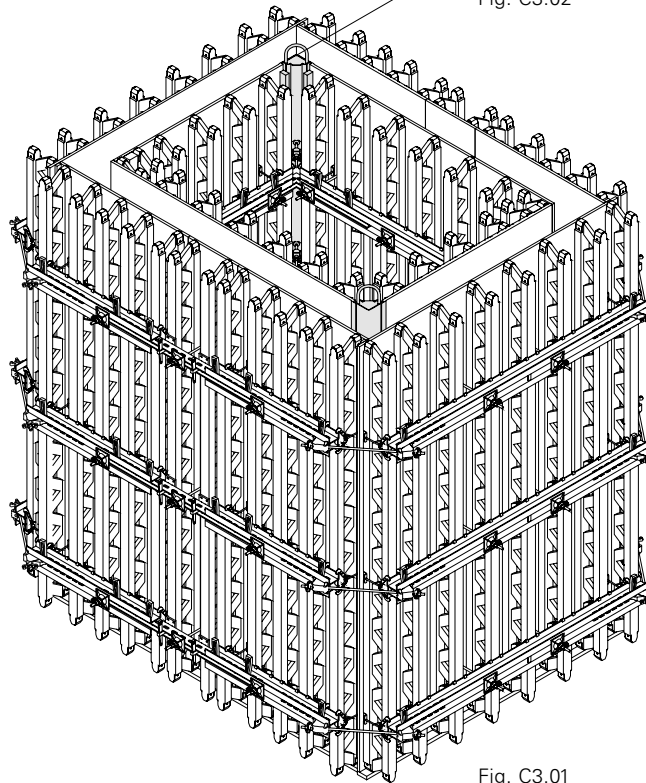


Fig. C3.01



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)

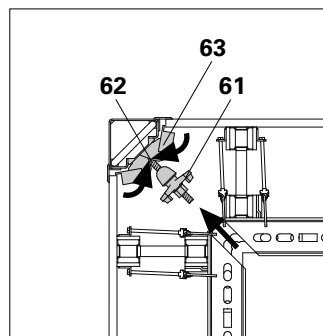


Fig. C3.03

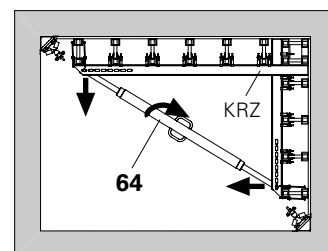


Fig. C3.04

C4 Element Connections for Architectural Concrete

With Coupling VKS 99 Architectural Concrete and Alignment Clamp VRS.



– Compensation up to 5 mm element offsets possible. (Fig. C4.01)

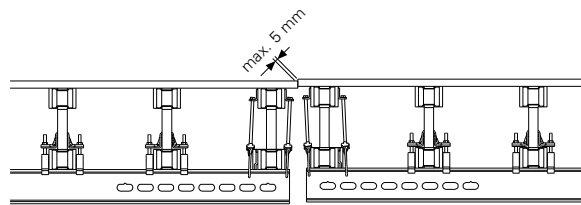
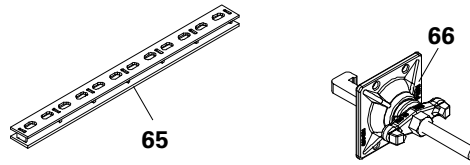
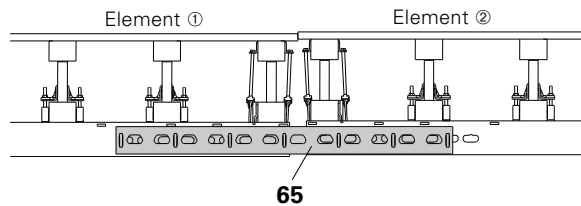


Fig. C4.01

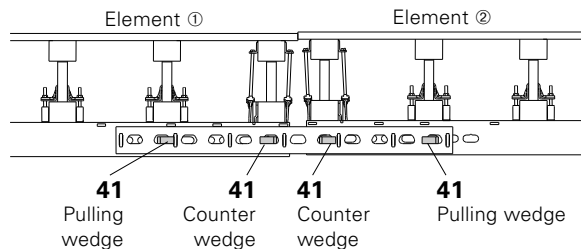
Assembly

1. Centrally position Coupling VKS 99 (65) on the element joint in the steel waler.

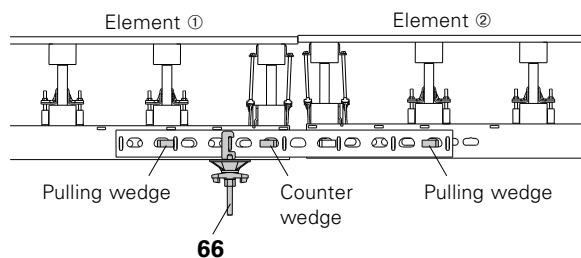
The tapering of the trapezoidal-shaped cut-outs point to the concreted side



2. Hammer in the KZ wedge (41) as described in B6.

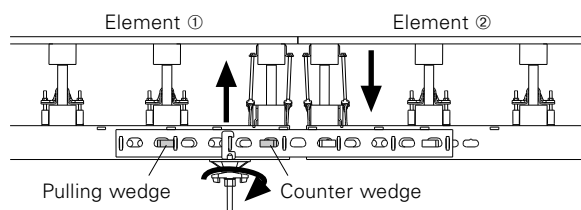


3. Attach one VRS alignment clamp (66) per steel waler to the rear-positioned element in the VKS coupling with spacer. Loosen push-pull wedges on Element ①. If necessary, use counter wedge to slightly open the plywood joint on Element ②.



4. Tension the alignment clamp to compensate for the element offset.

Tighten plywood joint on Element ① with the counter wedge and counter with the pulling wedge on Element ①.



D1 Steel Waler SRU

Steel Waler SRU

The SRU steel waler (70) has a wide range of functions and supplements the VARIO system, e.g. in civil engineering or special designs.

Features:

- U120 profile (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 HB hook strap (b)
- drilled holes every 12.5 cm along the complete length for various connections, e.g. UK 70 universal coupler (c)
- VARIO extension 24 (d) connection holes for forming VARIO walers
- reinforced spacer only at the front (e)

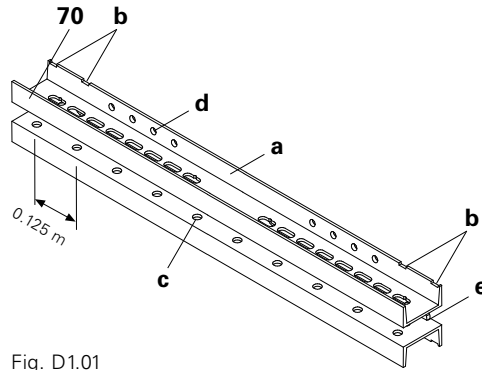


Fig. D1.01

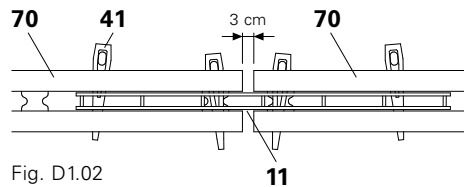


Fig. D1.02

Installation

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

SRU/SRU element connection

With Coupling VKZ (11) and Wedge KZ (41).
Spacing between the SRU walers (70) is 3 cm.
(Fig. D1.02)

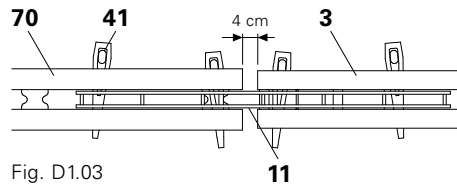


Fig. D1.03

SRU/SRZ element connection

With Coupling VKZ (11) and Wedge KZ (41).
Spacing between the SRU walers (70) and SRZ (3) is 4 cm.
(Fig. D1.03)

VARIO Extension 24

The VARIO extension (71) is a screwed connection for subsequent construction of a VSRZ steel waler (72) or as bracing.
(Fig. D1.04 + D1.05)

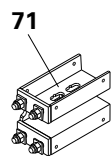


Fig. D1.04

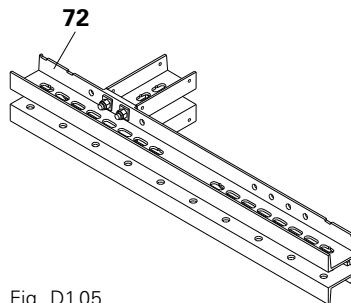


Fig. D1.05

D2 Universal Coupling UK 70

Universal Coupling UK 70

- for rigid connections with the SRU waler
- for connecting push-pull props, tie rod cylinder yokes and SLS heavy-duty spindles
- as a fixing point for diagonal bracing. (Fig. D2.01)

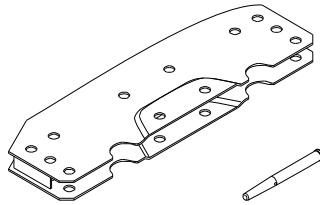


Fig. D2.01

Assembly

The UK 70 universal coupling (75) is fixed using four pins and cotter pins (76). (Fig. D2.02)



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

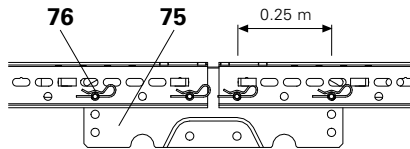


Fig. D2.02

VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
101241	318,000
101242	381,000
101243	488,000
101244	597,000
101245	646,000
101246	756,000
101247	805,000

VARIO Standard Panels S b = 2.50 m
VARIO Standard Panel S 250 x 240
VARIO Standard Panel S 250 x 300
VARIO Standard Panel S 250 x 360
VARIO Standard Panel S 250 x 420
VARIO Standard Panel S 250 x 480
VARIO Standard Panel S 250 x 540
VARIO Standard Panel S 250 x 600

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

Note

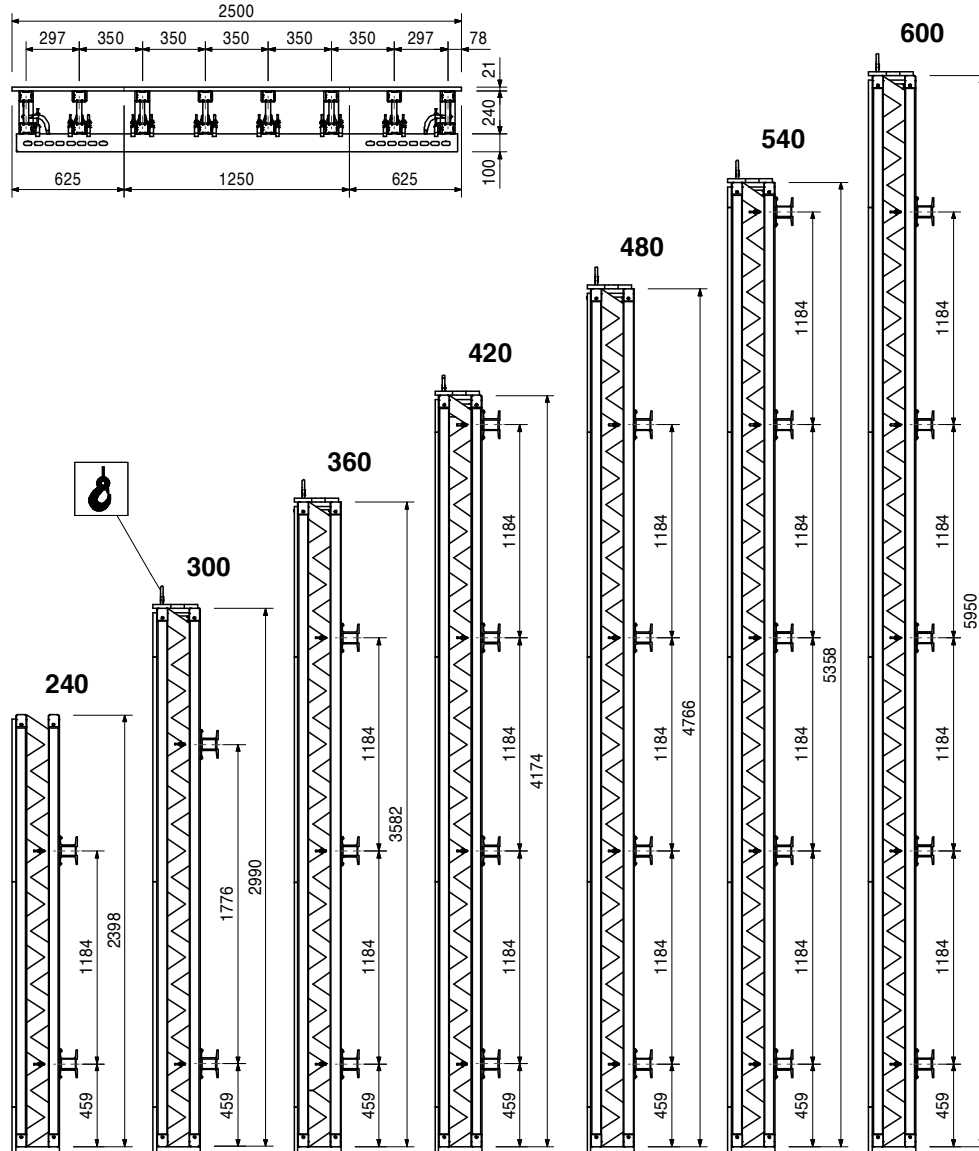
Panel = 2.40 m, without Cover Board and Crane Eye 24.

Technical Data

Permissible fresh concrete pressure 60 kN/m².

Safety Instructions

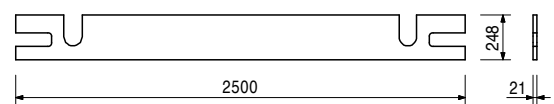
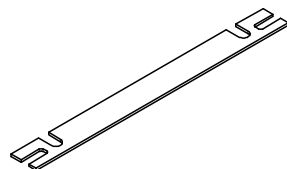
Load-bearing point capacity 0.7 t with a crane sling angle $\leq 15^\circ$.



101311 6,170

Protection Board 250

As top covering for VARIO GT 24 standard panels.



VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
101248	237,000
101249	284,000
101250	364,000
101251	444,000
101252	481,000
101253	562,000
101254	598,000

VARIO Standard Panels S b = 1.875 m
VARIO Standard Panel S 1875 x 240
VARIO Standard Panel S 1875 x 300
VARIO Standard Panel S 1875 x 360
VARIO Standard Panel S 1875 x 420
VARIO Standard Panel S 1875 x 480
VARIO Standard Panel S 1875 x 540
VARIO Standard Panel S 1875 x 600

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

Note

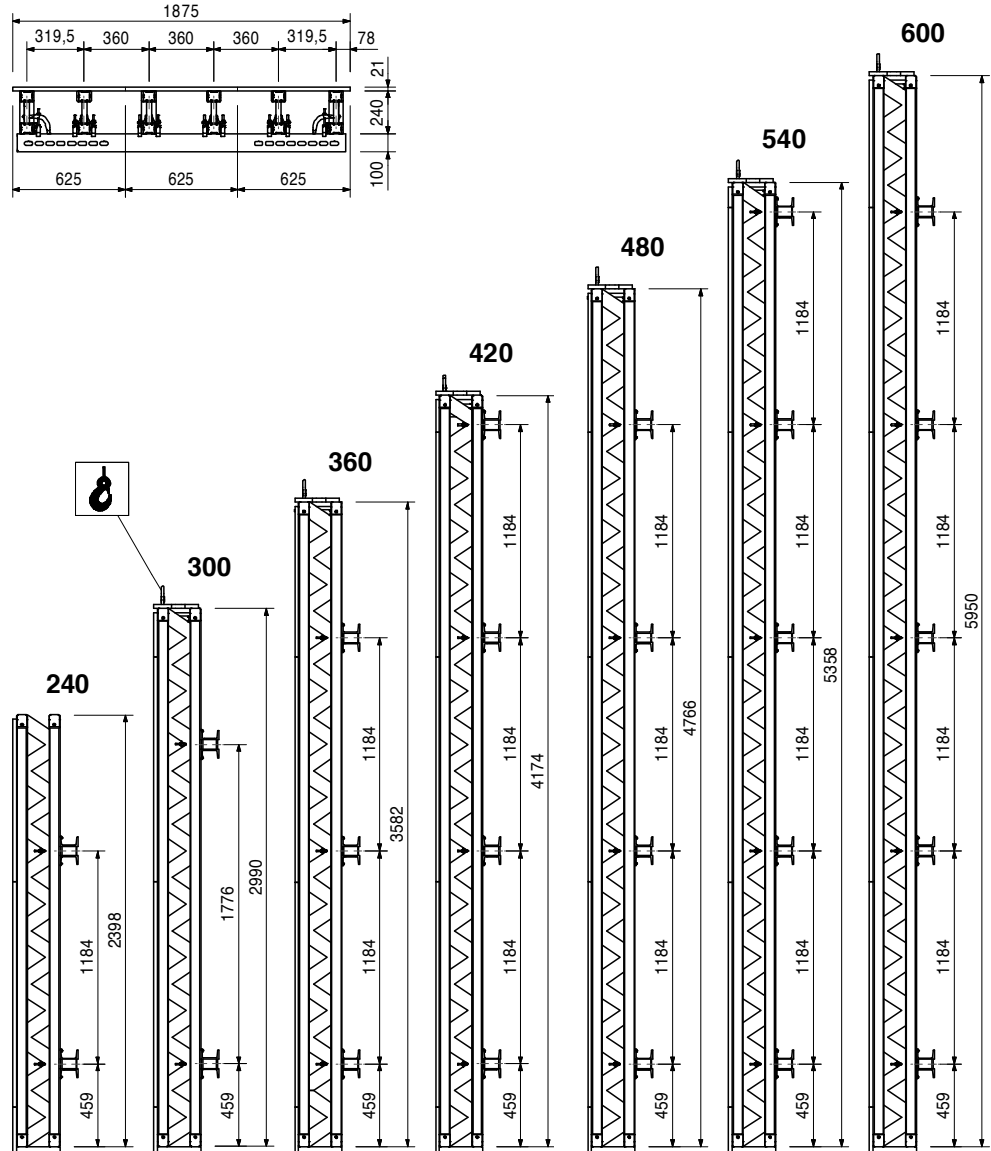
Panel = 2.40 m, without Cover Board and Crane Eye 24.

Technical Data

Permissible fresh concrete pressure 60 kN/m².

Safety Instructions

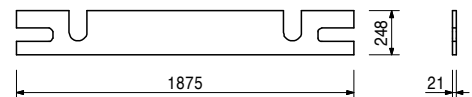
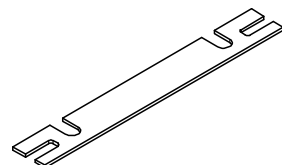
Load-bearing point capacity 0.7 t with a crane sling angle ≤ 15°.



101318	4,470
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Protection Board 1875

As top covering for VARIO GT 24 standard panels.



VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
101255	173,000
101256	209,000
101257	267,000
101258	324,000
101259	352,000
101260	410,000
101261	438,000

VARIO Standard Panels S b = 1.25 m
VARIO Standard Panel S 125 x 240
VARIO Standard Panel S 125 x 300
VARIO Standard Panel S 125 x 360
VARIO Standard Panel S 125 x 420
VARIO Standard Panel S 125 x 480
VARIO Standard Panel S 125 x 540
VARIO Standard Panel S 125 x 600

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

Note

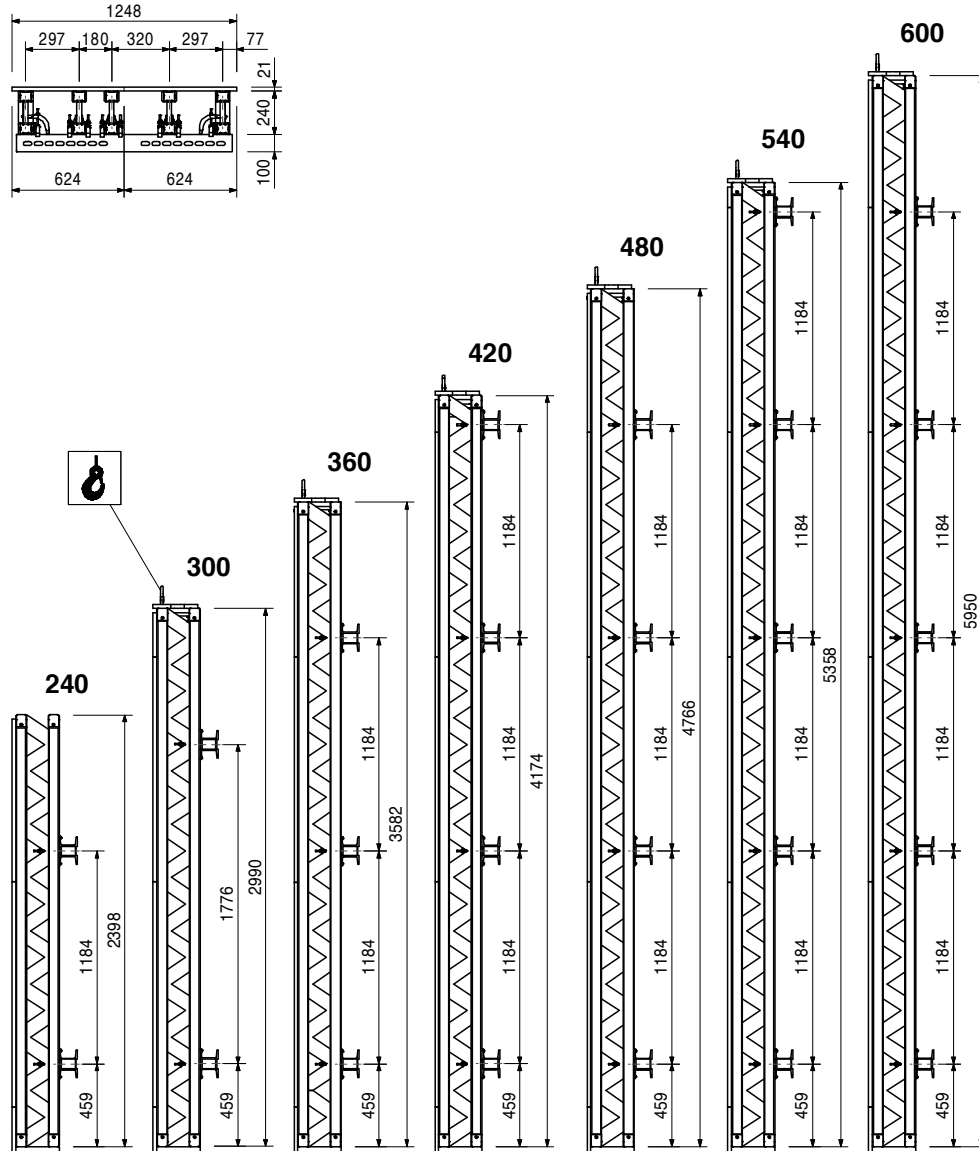
Panel = 2.40 m, without Cover Board and Crane Eye 24.

Technical Data

Permissible fresh concrete pressure 60 kN/m².

Safety Instructions

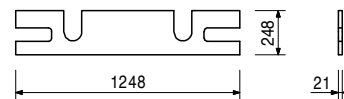
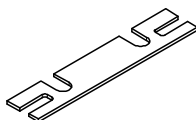
Load-bearing point capacity 0.7 t with a crane sling angle ≤ 15°.



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
101411	138,000
101410	168,000
101409	214,000
101408	260,000
101407	283,000
101406	329,000
101405	351,000

- VARIO Standard Panels S b = 1.00 m**
- VARIO Standard Panel S 100 x 240**
- VARIO Standard Panel S 100 x 300**
- VARIO Standard Panel S 100 x 360**
- VARIO Standard Panel S 100 x 420**
- VARIO Standard Panel S 100 x 480**
- VARIO Standard Panel S 100 x 540**
- VARIO Standard Panel S 100 x 600**

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

Note

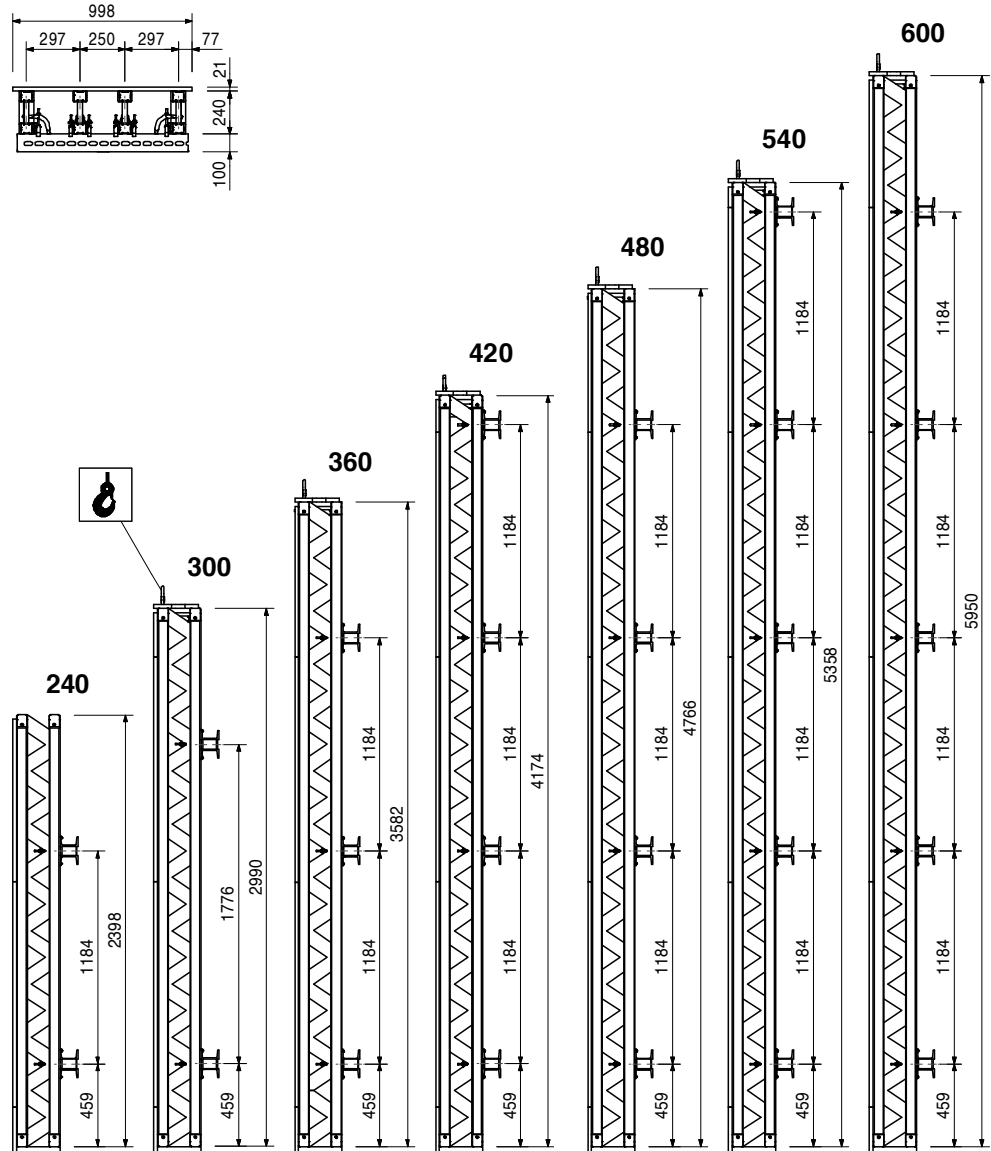
Panel = 2.40 m, without Cover Board and Crane Eye 24.

Technical Data

Permissible fresh concrete pressure 60 kN/m².

Safety Instructions

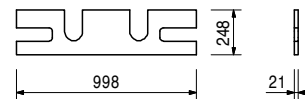
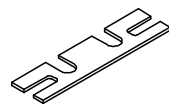
Load-bearing point capacity 0.7 t with a crane sling angle ≤ 15°.



101404	2,230
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Protection Board 100

As top covering for VARIO GT 24 standard panels.



VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
101471	211,000
101470	251,000
101469	325,000
101467	429,000
101465	534,000

- VARIO Internal Edges S 75/75**
- VARIO Internal Edge S 75/75 x 240**
- VARIO Internal Edge S 75/75 x 300**
- VARIO Internal Edge S 75/75 x 360**
- VARIO Internal Edge S 75/75 x 480**
- VARIO Internal Edge S 75/75 x 600**

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

Note

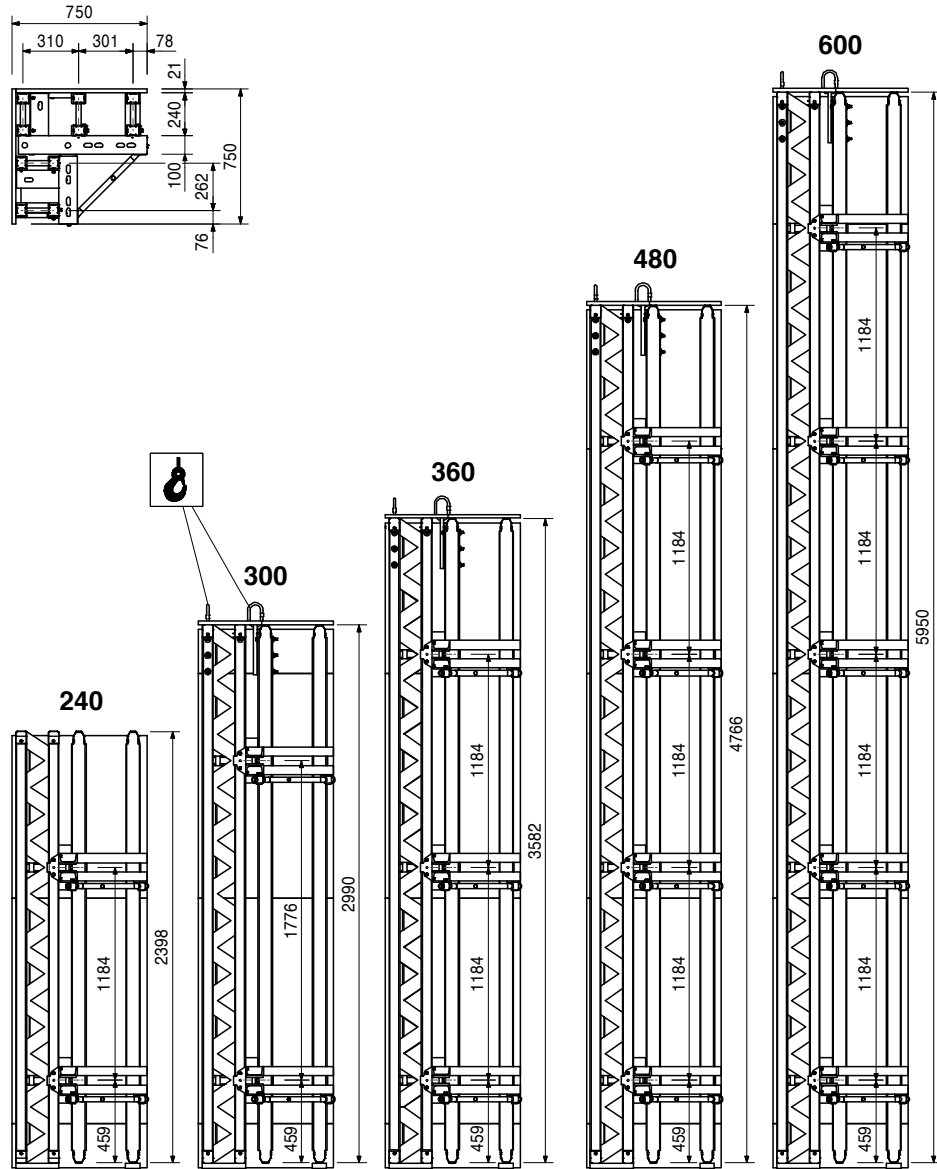
Panel = 2.40 m, without Cover Board and Crane Eye 24.

Technical Data

Permissible fresh concrete pressure 60 kN/m².

Safety Instructions

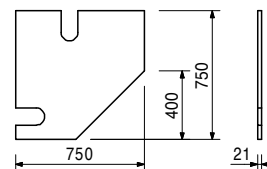
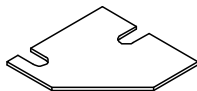
Load-bearing point capacity 0.7 t with a crane sling angle ≤ 15°.



101464	4,730
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Protection Board IE 75/75

As top covering for VARIO GT 24 standard panels.



Item no.	Weight kg
010600	19,800
010030	25,100
010610	30,400
010060	38,300
010070	40,900
010050	51,600
010120	61,500

Steel Waler SRZ U100
Steel Waler SRZ U-100 l = 0.95 m
Steel Waler SRZ U-100 l = 1.20 m
Steel Waler SRZ U-100 l = 1.45 m
Steel Waler SRZ U-100 l = 1.825 m
Steel Waler SRZ U-100 l = 1.95 m
Steel Waler SRZ U-100 l = 2.45 m
Steel Waler SRZ U-100 l = 2.95 m

Steel waler for VARIO GT 24 panels and special applications.

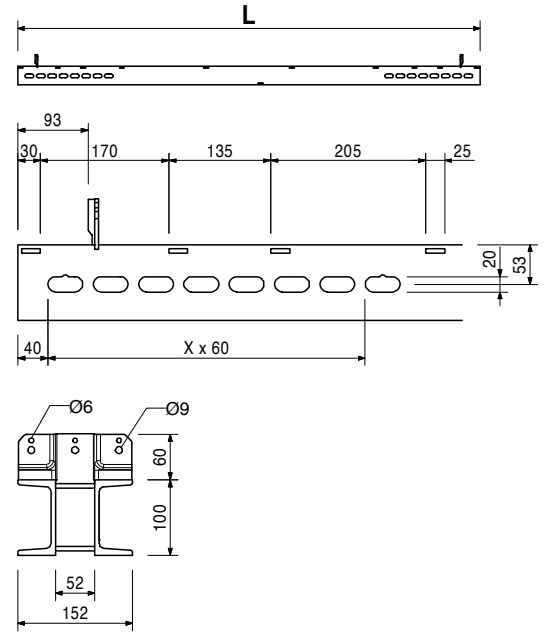
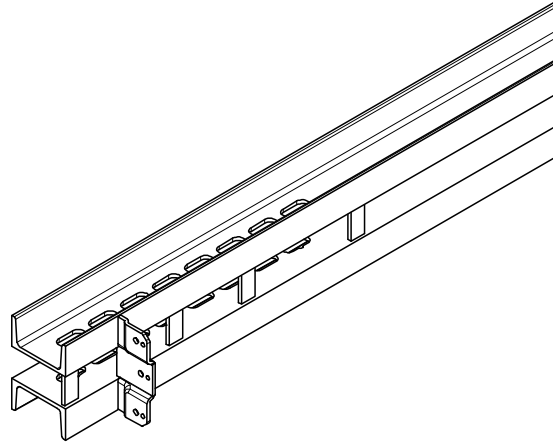
L
950
1200
1450
1825
1950
2450
2950

Note

Special lengths and other profile sizes on request.

Technical Data

$W_y = 82.4 \text{ cm}^3$, $I_y = 412 \text{ cm}^4$



010080	22,000
010150	28,000
010090	33,000
010350	0,000

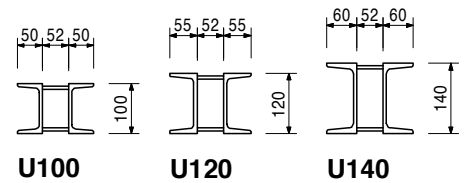
Steel Waler SRZ Spec. Length
Steel Waler SRZ U-100 Spec. Length
Steel Waler SRZ U-120 Spec. Length
Steel Waler SRZ U-140 Spec. Length
Additional Row of SRZ Slots

Technical Data

$W_y = 82.4 \text{ cm}^3$, $I_y = 412 \text{ cm}^4$

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

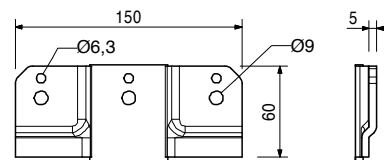
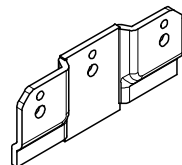
$W_y = 172.8 \text{ cm}^3$, $I_y = 1210 \text{ cm}^4$



710001	0,376
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End Plate SRZ

For Steel waler SRZ with special lengths.



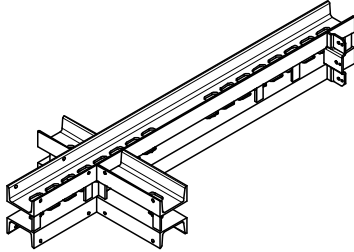
VARIO GT 24 Girder Wall Formwork



Item no. Weight kg

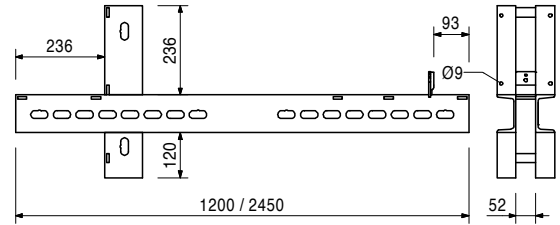
010440	32,200	Steel Waler VSRZ
010420	58,900	Steel Waler VSRZ-24 U-100 I = 1.20/12
010490	0,000	Steel Waler VSRZ-24 U-100 I = 2.45/12
010500	0,000	Welding Unit for VSRZ/12
		Welding Unit for VSRZ

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



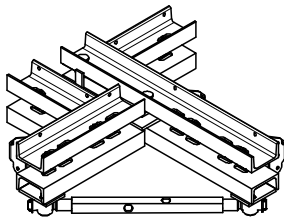
Note
Special lengths and other profile sizes on request.

Technical Data
 $W_y = 82.4 \text{ cm}^3$, $I_y = 412 \text{ cm}^4$

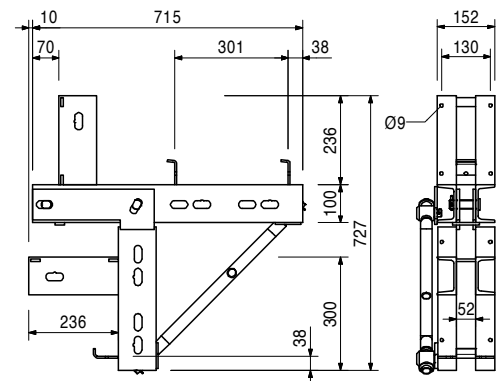


010200 42,300

Internal Corner Waler IRZ 75/75
Steel waler for VARIO GT 24 corner element 75 x 75 cm. Allows easy striking.

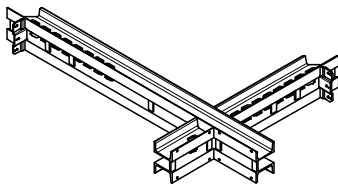


Technical Data
 $W_y = 82.4 \text{ cm}^3$, $I_y = 412 \text{ cm}^4$



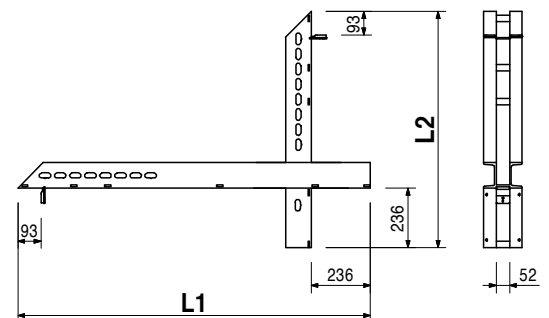
010180 22,000
010270 28,000
010190 33,000
010400 0,000

Cross Waler KRZ Spec. Length
Cross Waler KRZ U-100, Spec. Length
Cross Waler KRZ U-120, Spec. Length
Cross Waler KRZ U-140, Spec. Length
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
 $W_y = 82.4 \text{ cm}^3$, $I_y = 412 \text{ cm}^4$



VARIO GT 24 Girder Wall Formwork

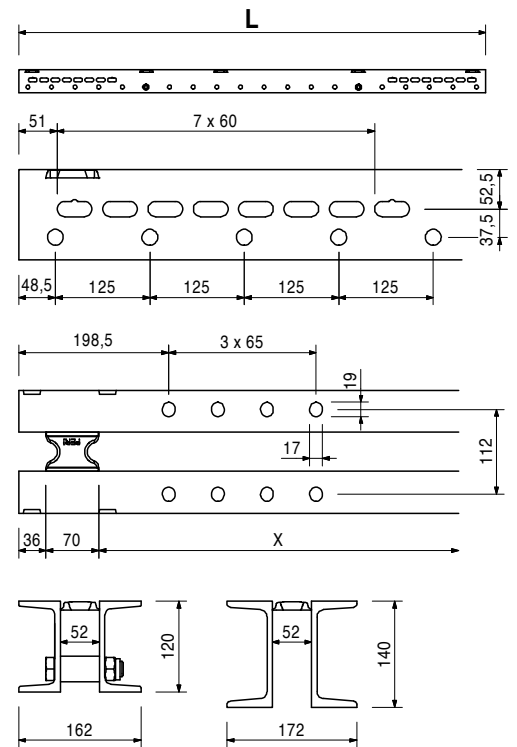
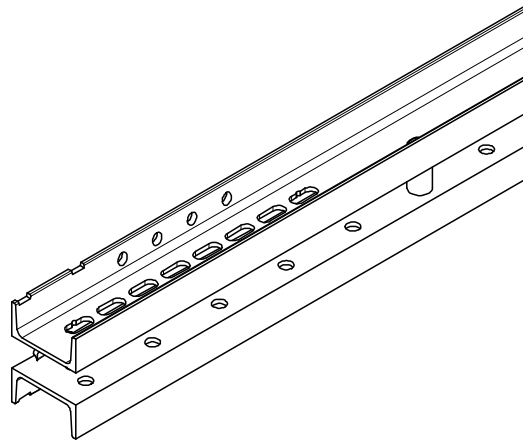


Item no.	Weight kg		L
		Steel Walers Universal SRU	
103868	18,100	Steel Waler Universal SRU U-120 l = 0.72 m	722
103871	24,200	Steel Waler Universal SRU U-120 l = 0.97 m	972
103874	30,900	Steel Waler Universal SRU U-120 l = 1.22 m	1222
103877	38,100	Steel Waler Universal SRU U-120 l = 1.47 m	1472
103886	44,700	Steel Waler Universal SRU U-120 l = 1.72 m	1722
103889	52,000	Steel Waler Universal SRU U-120 l = 1.97 m	1972
103898	58,600	Steel Waler Universal SRU U-120 l = 2.22 m	2222
103892	65,600	Steel Waler Universal SRU U-120 l = 2.47 m	2472
103929	72,000	Steel Waler Universal SRU U-120 l = 2.72 m	2722
103903	81,000	Steel Waler Universal SRU U-120 l = 2.97 m	2972
103906	92,600	Steel Waler Universal SRU U-120 l = 3.47 m	3472
103915	106,000	Steel Waler Universal SRU U-120 l = 3.97 m	3972
103918	119,000	Steel Waler Universal SRU U-120 l = 4.47 m	4472
103922	135,000	Steel Waler Universal SRU U-120 l = 4.97 m	4972
103925	146,000	Steel Waler Universal SRU U-120 l = 5.47 m	5472
103928	159,000	Steel Waler Universal SRU U-120 l = 5.97 m	5972
103943	157,000	Steel Waler Universal SRU U-140 l = 4.97 m	4972

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

Technical Data

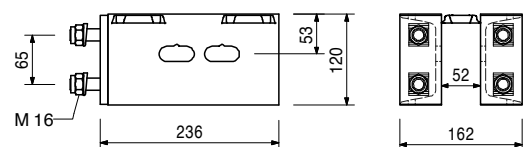
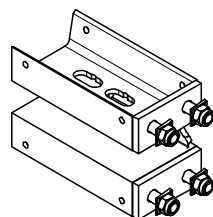
SRU 120 $W_y = 121.4 \text{ cm}^3$, $I_y = 728 \text{ cm}^4$
 SRU 140 $W_y = 172.8 \text{ cm}^3$, $I_y = 1210 \text{ cm}^4$



104027	7,610	Extension VARIO 24 U120 For assembly on Steel Waler SRU.	Complete with 4 pc. 710252 Bolt ISO 4017 M16 x 50-8.8, galv. 4 pc. 104024 Nut ISO 7040 M16-8, galv. 4 pc. 710880 Washer DIN 434 18, galv.
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Technical Data

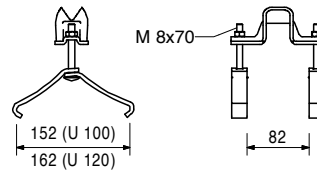
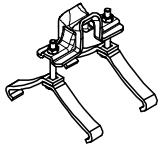
$W_y = 121.4 \text{ cm}^3$, $I_y = 728 \text{ cm}^4$



Item no.	Weight kg
024070	0,691

Hook Strap HB 24-100/120, galv.

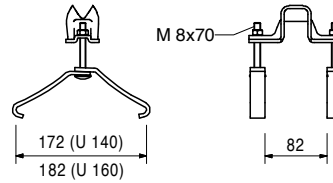
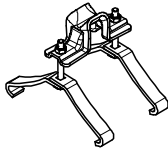
For fixing GT 24 girders to Steel Waler SRZ and SRU Profile U100 – U120.



024080	0,695
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Hook Strap HB 24-140/160, galv.

For fixing GT 24 girders to Steel Waler SRZ and SRU Profile U140 – U160.



071218	0,000
024140	0,033
710240	0,050
024090	0,005

Accessories Hook Straps HB

Screw Change HB, incl. Screws

F.H. Bolt DIN 603 M8 x 70 MU, galv.

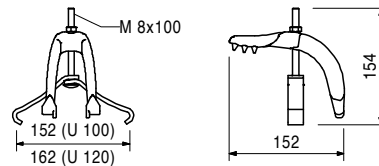
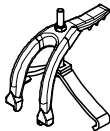
F.H. Bolt DIN 603 M8 x 100 MU, galv.

Nut ISO 4032 M8-8, galv.

024600	0,907
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Girder Claw HB

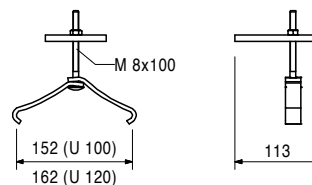
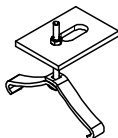
For mounting the GT 24 edge girder on the Steel Waler SRZ and SRU Profile U100 – U120.



024630	0,742
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Fix Strap U100 – U120, galv.

For fixing the GT 24 girder in the VARIO corner.



VARIO GT 24 Girder Wall Formwork

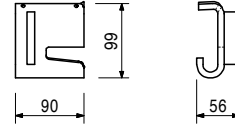
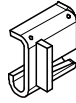
Item no.	Weight kg
024640	0,923

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.

Safety Instructions

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



104931	0,865
103845	0,893

Hook Straps Uni HBU

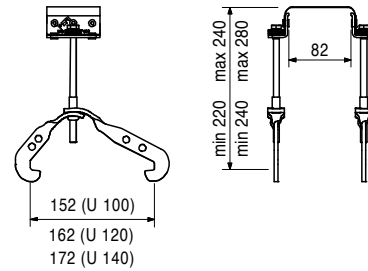
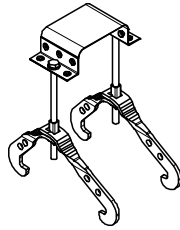
Hook Strap Uni HBU 20-24

Hook Strap Uni HBU 24-28

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

Note

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



104930	0,887
104096	0,912

Hook Straps Uni Double HBUD

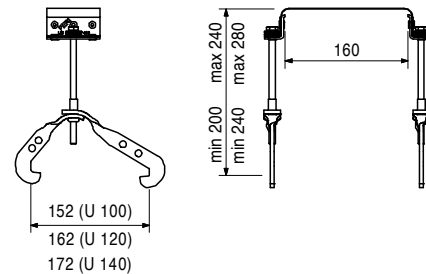
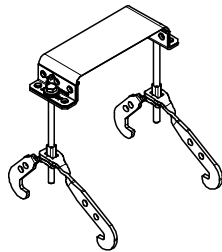
Hook Strap Uni Double HBUD 20-24

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.



071219	0,000
104929	0,050
107185	0,060
103518	0,060
103844	0,013

Accessories Hook Straps HBU, HBUD

Screw Change HBU, HBUD

Bolt ISO 4014 M8 x 150-8.8, galv.

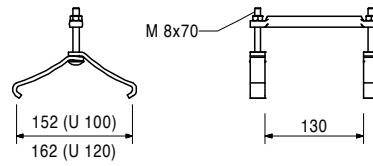
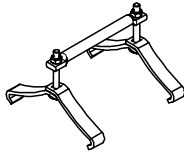
Bolt ISO 4014 M8 x 180-8.8, galv.

Bolt ISO 4014 M8 x 190-8.8, galv.

Sleeve HBU/HBUD, galv.

Item no.	Weight kg
024860	0,616

Cross Strap 150 for HB



Accessories

024140	0,033
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F.H. Bolt DIN 603 M8 x 70 MU, galv.

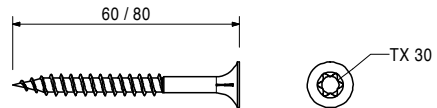
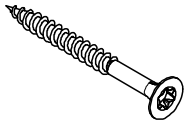
024470	0,008
024690	0,008

TSS-Torx, galv.

TSS-Torx 6 x 60, galv.

TSS-Torx 6 x 80, galv.

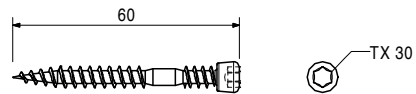
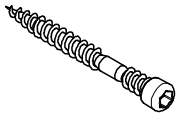
For Torx Blade TX 30. Self-drilling.



110272	0,006
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TSS-Torx 6 x 60, ZKS, galv.

For Torx Blade TX 30. Self-drilling.



024270	0,023
024260	0,027

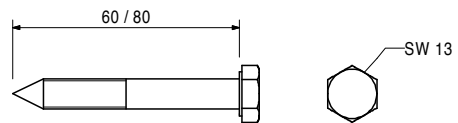
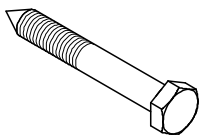
Lag Screws DIN 571, galv.

Lag Screw DIN 571 8 x 60, galv.

Lag Screw DIN 571 8 x 80, galv.

Note

Wrench size SW 13.



Item no.	Weight kg
072210	1,600

Power-Screwdriver SCU 7-9

Universal power screwdriver with adjustable coupler, continuous electronic speed control and clockwise/anti-clockwise rotation.

Technical Data

Voltage 230 V, 50 – 60 Hz.
Power consumption 400 W.
Max. tightening moment 28 Nm.



Accessories

072220	0,400
072230	0,425
072240	0,110
072140	0,005

- Bit Holder for SCU 7-9**
- Magnetic Holder for SCU 7-9**
- Depth Chuck for SCU 7-9**
- Bit Point TX 30**

072220	0,400
072230	0,425
072240	0,110
072140	0,005

- ### Accessories for Power-Screwdriver SCU 7-9
- Bit Holder for SCU 7-9**
 - Magnetic Holder for SCU 7-9**
 - Depth Chuck for SCU 7-9**
 - Bit Point TX 30**

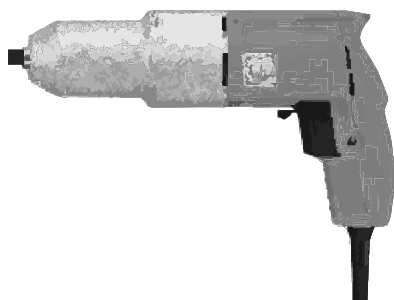
072150	2,860
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Electric Power Wrench M14, ASB 636

Lightweight electric power wrench for moment-free working, with clockwise/anti-clockwise rotation. With 1/2" square drive.

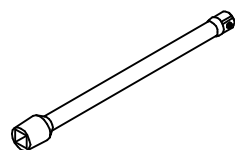
Technical Data

Voltage 230 V, 50 – 60 Hz.
Power consumption 230 W.
Max. tightening moment 100 Nm.



072160	0,340
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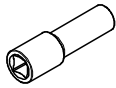
Extension 1/2" l = 250 mm



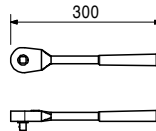
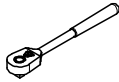
VARIO GT 24 Girder Wall Formwork



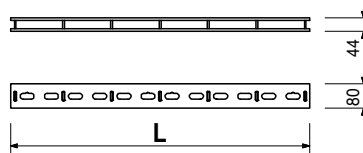
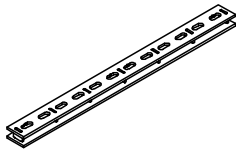
Item no.	Weight kg	
072170	0,100	Socket SW 13-1/2" l = 80 mm



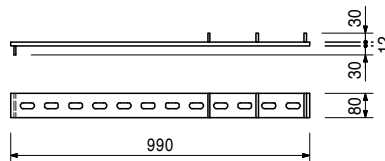
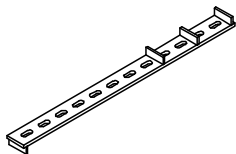
072180	0,560	Ratchet Wrench 1/2"
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		Couplings VKZ
013010	9,000	Coupling VKZ 99
013020	13,300	Coupling VKZ 147
013030	19,100	Coupling VKZ 211
013080	9,000	Coupling VKZ Spec. Length
For connection of SRZ and SRU steel walers.		



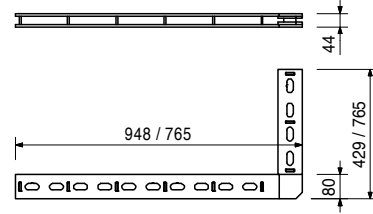
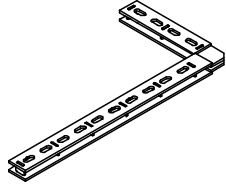
101395	7,110	Offset Coupling VVKZ 3/99
For connecting extended and non-extended VARIO elements above the extension.		



Item no.	Weight kg
013140	11,900
013130	13,300
013180	9,000

Corner Couplings EKZ
Corner Coupling EKZ 95/43
Corner Coupling EKZ 76/76
Corner Coupling EKZ Spec. Length

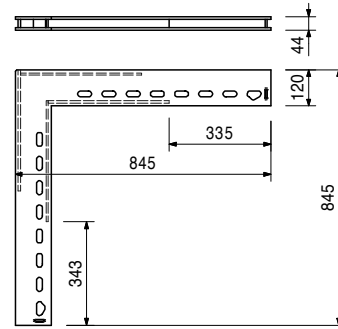
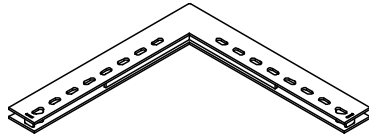
For continuously variable tight (tension and compression) connection of SRZ and SRU steel walers.



103850	24,700
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Outside Corner Coupling AKZ 85/85

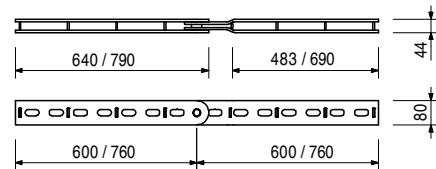
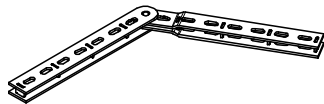
For providing tensile and compression-proof connections of Steel Walers SRZ and SRU on external corners.



013220	11,500
013210	14,400
013230	9,000

Articulated Couplings GKZ
Articulated Coupling GKZ 60/60
Articulated Coupling GKZ 76/76
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°.

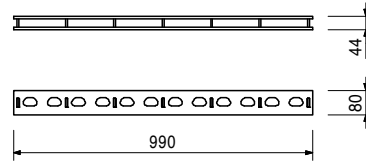
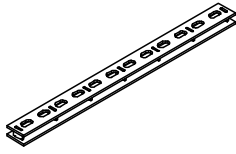


VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
102825	8,700

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

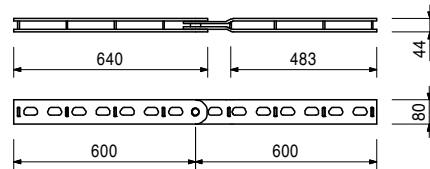
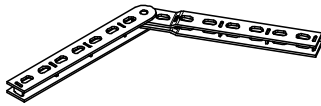


Item no.	Weight kg
102945	2,070

Accessories
VARIO Alignment Clamp VRS

Item no.	Weight kg
103054	11,300

Articulated Coupling GKS 60/60 S
 For connecting VARIO GT 24 panels. Allows compensation of up to max. 5 mm panel offsets.



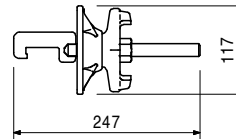
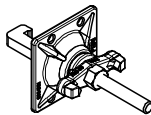
Item no.	Weight kg
102945	2,070

Accessories
VARIO Alignment Clamp VRS

Item no.	Weight kg
102945	2,070

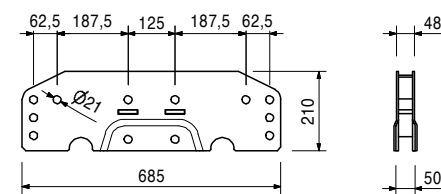
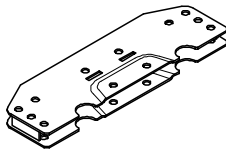
VARIO Alignment Clamp VRS
 In connection with Coupling VKS 99 or Articulated Coupling GKS 60/60. For compensating maximum 5 mm element offset.

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



Item no.	Weight kg
103737	10,800

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

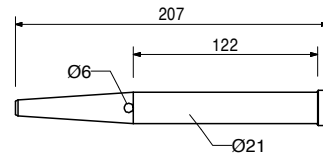
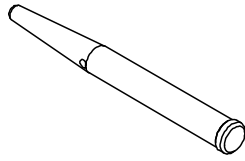


Item no.	Weight kg
104031	0,462
018060	0,030

Accessories
Fitting Pin Ø 21 x 120
Cotter Pin 4/1, galv.

Item no.	Weight kg
104031	0,462

Fitting Pin Ø 21 x 120
For different connections.



018060	0,030
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Accessories
Cotter Pin 4/1, galv.

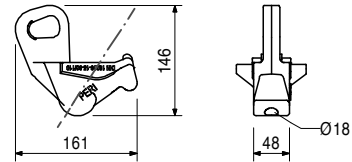
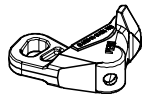
018060	0,030
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Cotter Pin 4/1, galv.



024210	2,180
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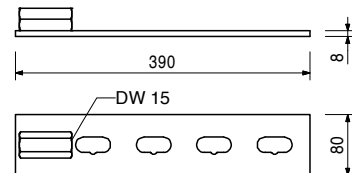
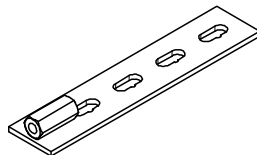
Tie Yoke SKZ
For tensioning on external corners with Steel Waler SRZ, SRU, U100 - U140 and VARIO couplings.



013240	2,100
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Stopend Tie
For assembling stopend formwork with VARIO GT 24.

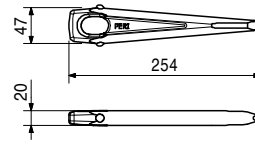
Technical Data
Permissible tension force 30.0 kN.



Item no.	Weight kg
024240	0,805

Wedge KZ, galv.

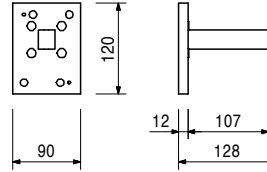
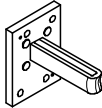
For connecting panels with VARIO Couplings or Tie Yoke SKZ.



024220	1,230
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Coupling Compression Plate KDP

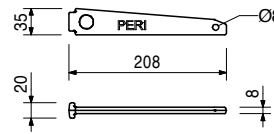
For mounting girders to VARIO Couplings in infill areas.



024250	0,331
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Wedge K, galv.

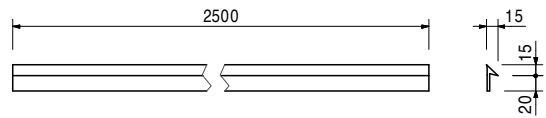
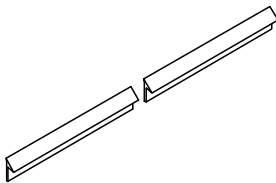
For Coupling Compression Plate KDP, Wedge Head Piece SRZ/SRU and Waler Connector SB-A, B, C.



031200	0,470
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Chamfer Strip with Flange l = 2.50 m

Plastic chamfer strip.



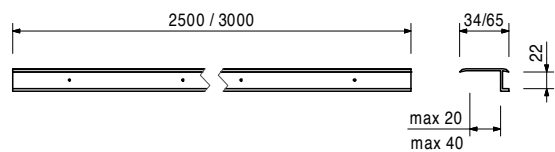
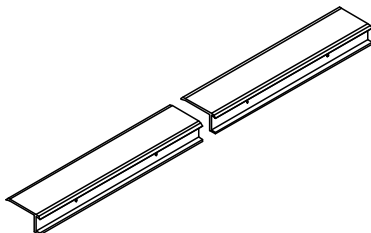
030260	0,500
101706	1,230

Formwork Joints

Formwork Joint 21/20 l = 2.50 m

Formwork Joint 21/40 l = 3.00 m

Plastic profile strip for easier striking of shafts.



Item no.	Weight kg
025200	32,200
025210	70,000
025220	105,000
025230	140,000
025240	180,000
025250	35,000

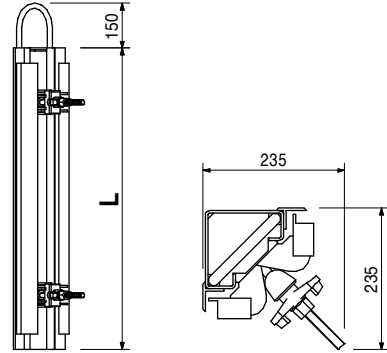
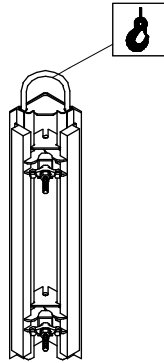
Quick Release Corners SSE
Quick Release Corner SSE 1.0 m
Quick Release Corner SSE 2.0 m
Quick Release Corner SSE 3.0 m
Quick Release Corner SSE 4.0 m
Quick Release Corner SSE 5.0 m
Quick Release Corner SSE Spec. Length

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

L
1000
2000
3000
4000
5000

Note

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



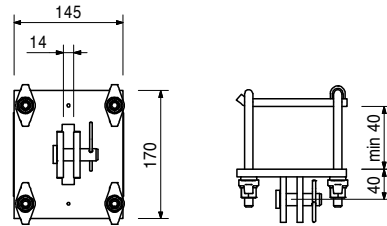
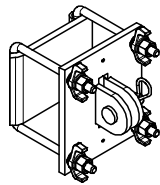
028050	4,550
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Girder Headpiece GT 24, galv.

For connecting push-pull props and kicker braces to GT 24 girders

Complete with

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



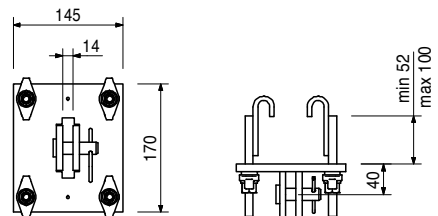
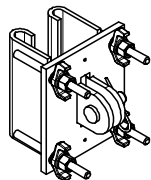
028070	4,680
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Girder Headpiece GT 24/A, galv.

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 Bolt Ø 16 x 42, galv.
 1 pc. 018060 Cotter Pin 4/1, galv.



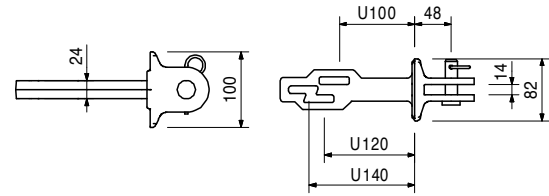
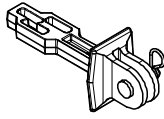
Item no.	Weight kg
028060	1,940

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 Bolt \varnothing 16 x 42, galv.
1 pc. 018060 Cotter Pin 4/1, galv.



Item no.	Weight kg
024250	0,331

Accessories

Wedge K, galv.

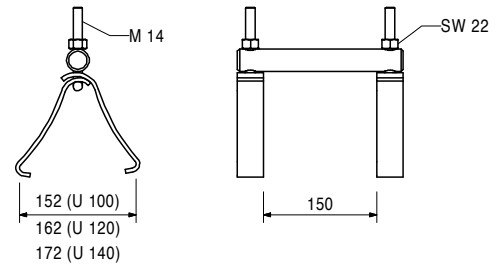
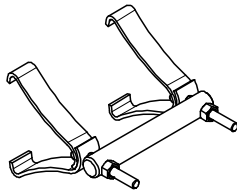
Item no.	Weight kg
027590	2,400

Hook Strap for SB-1, 2, galv.

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

Note

Wrench size SW 22.



Item no.	Weight kg
024480	7,040

Extension Splice 24-2

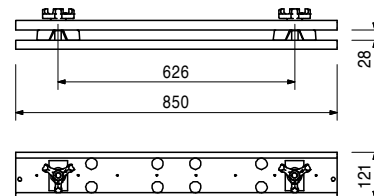
For extending GT 24 girders and VARIO GT 24 elements up to max. height of 8.00 m.

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

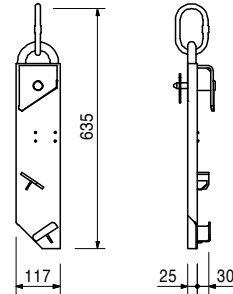
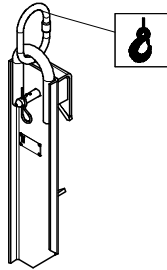
1 pc. 018050 Bolt Ø 16 x 65/86, galv.
1 pc. 018060 Cotter Pin 4/1, galv.

Technical Data

Load-carrying capacity with crane sling angle $\leq 15^\circ$ 0.7 t.

Safety Instructions

Always use 2 pieces per transportation unit.
Follow Instructions of use at all times.



021990	2,780
021980	2,780

Crane Eyes 24

Crane Eye 24, right

Crane Eye 24, left

For transporting elements by crane with the GT 24 Girder. Mounted securely to the element.

Complete with

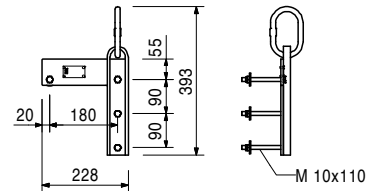
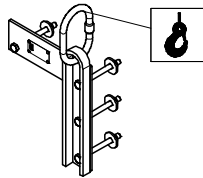
4 pc. 710138 Bolt ISO 4014 M10 x 110-8.8, galv.
4 pc. 780356 Nut ISO 7042 M10-8, galv.
4 pc. 710139 Washer R11 DIN 440, galv.

Technical Data

Load-carrying capacity with crane sling angle $\leq 15^\circ$ 0.7 t.

Safety Instructions

Illustration shows Crane Eye 24, left.
Always use one Crane Eye Left and one Crane Eye Right for one panel.



111238	19,800
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Crane Hook 2 t / GT 24

For transporting elements by crane with the GT 24 Girder. Adjustable from 23 to 41 cm.

Complete with

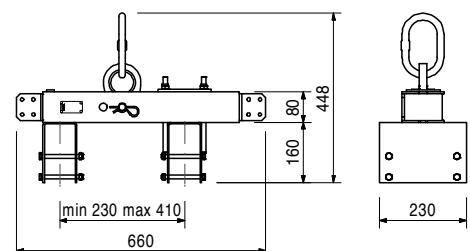
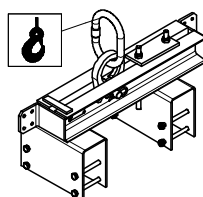
1 pc. 018060 Cotter Pin 4/1, galv.
8 pc. 710138 Bolt ISO 4014 M10 x 110-8.8, galv.
8 pc. 780356 Nut ISO 7042 M10-8, galv.

Technical Data

Load-carrying capacity with crane sling angle $\leq 30^\circ$ 2.0 t.

Safety Instructions

Always use 2 pieces per transportation unit.
Always use compression bar.
Follow instructions of use at all times.



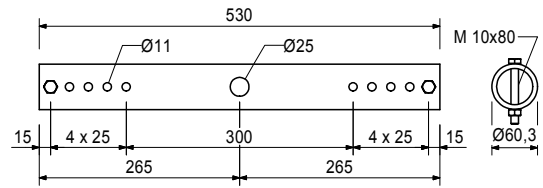
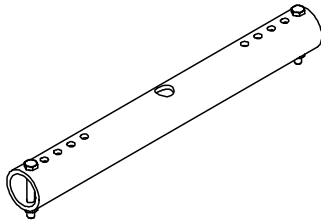
VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
057050	4,450

Suspension Tube Vario 53
For attaching VARIO GT 24 elements.

Complete with
2 pc. 710593 Bolt ISO 4014 M10 x 80-8.8, galv.
2 pc. 710234 Nut ISO 4032 M10-8, galv.



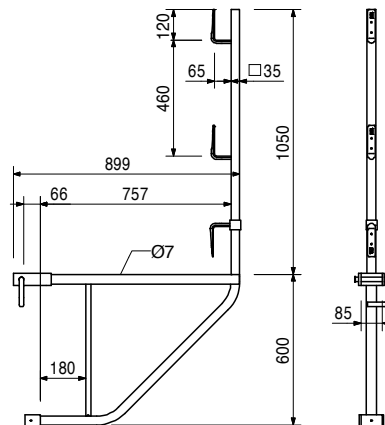
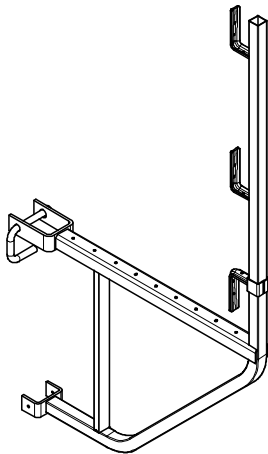
030745	2,600
030800	,000
030580	0,371
724812	0,656
781053	0,065

Accessories
Tie Rod B 20 Spec. Length
Cutting Cost Tie Rod DW 20/B 20
Hex. Nut DW 20 SW 36/60
Stair Tower Eye Bolt M20 x 110, galv.
Nut ISO 7042 M20-8, galv.

027110	11,000
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Scaffold Bracket GB 80
For assembly of a working and concreting scaffold with VARIO GT 24.

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



VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
027060	14,000
027070	14,000

Corner Scaffold Brackets EGB
Corner Scaffold Bracket EGB 24 - 80, right
Corner Scaffold Bracket EGB 24 - 80, left

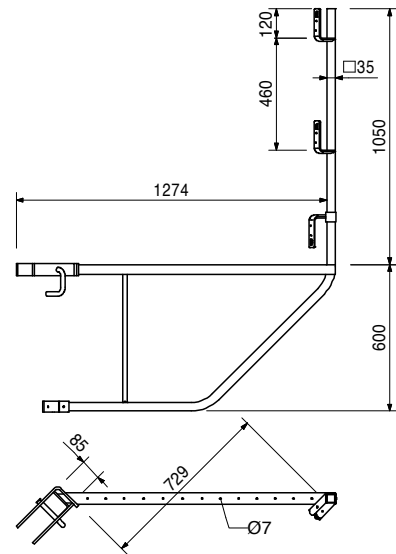
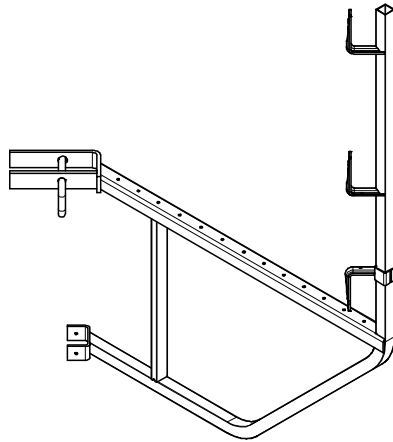
For assembling a working scaffold to panels with GT 24 girders. With securing bolts.

Note

Illustration shows the Corner Scaffold Bracket EGB 24-80 R.

Technical Data

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



112159	2,130
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Handrail Post Holder VARIO

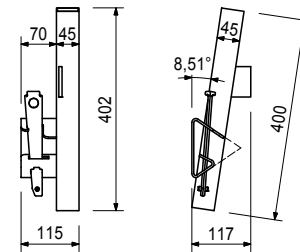
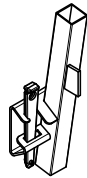
For assembling a guardrail on VARIO GT 24 elements.

Complete with

- 1 pc. 024250 Wedge K, galv.
- 1 pc. 780800 Sleeve ISO 8752 8 x 20, galv.

Technical Data

Maximum width of influence: 1.25 m.



105985	156,000
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Platform VARIO 100/250 with Hatch

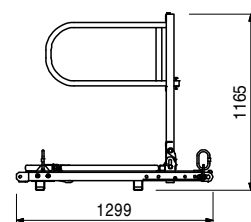
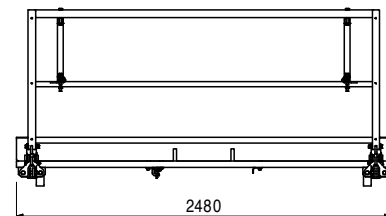
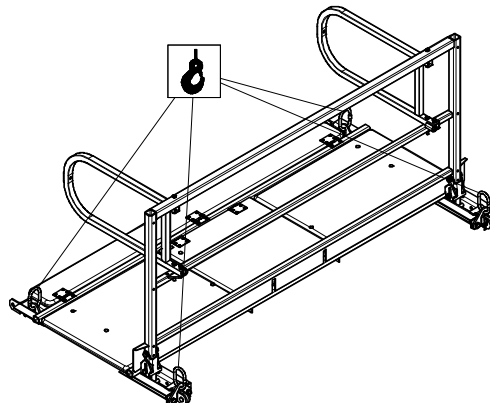
Pre-assembled working platform for VARIO GT 24 panels.

Complete with

- 2 pc. 100813 Platform Guardrail 80

Technical Data

Permissible load 150 kg/m²



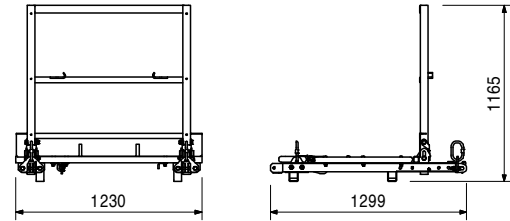
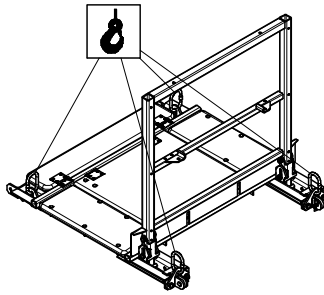
VARIO GT 24 Girder Wall Formwork



Item no.	Weight kg
102415	98,800

Platform VARIO 100/125 with Hatch
Pre-assembled working platform for VARIO GT 24 panels.

Technical Data
Permissible load 150 kg/m²



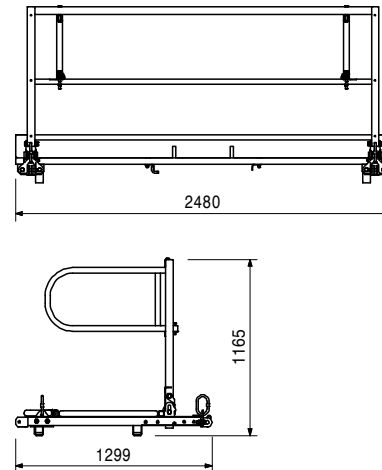
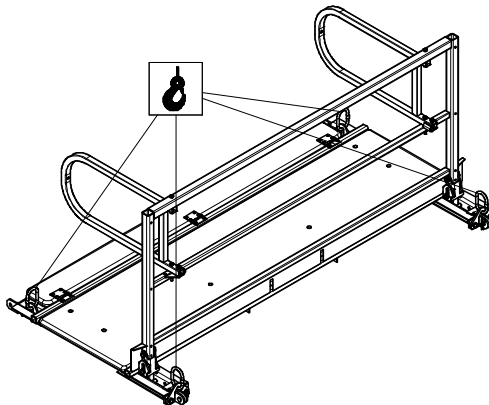
100813	4,980
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Accessories
Platform Guardrail 80

105986	155,000
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Platform VARIO 100/250 without Hatch
Pre-assembled working platform for VARIO GT 24 panels.

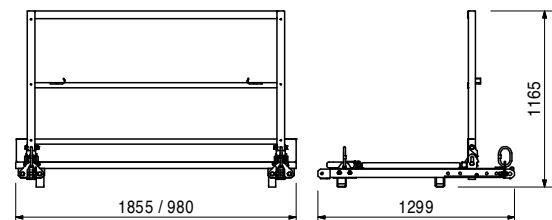
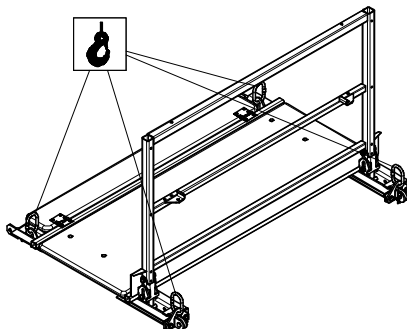
Complete with
2 pc. 100813 Platform Guardrail 80
Technical Data
Permissible load 150 kg/m²



102920	115,000
103203	84,900

Platform VARIO without Hatch
Platform VARIO 100/187.5 without Hatch
Platform VARIO 100/100 without Hatch
Pre-assembled working platform for VARIO GT 24 panels.

Technical Data
Permissible load 150 kg/m².



100813	4,980
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Accessories
Platform Guardrail 80

VARIO GT 24 Girder Wall Formwork



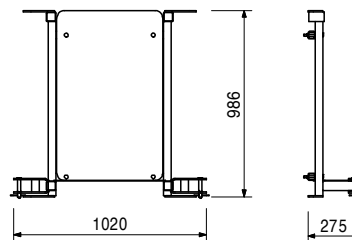
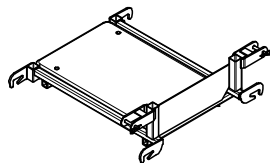
Item no.	Weight kg
103932	36,300

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.



Accessories

103865	22,000
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Guardrail for End Platform VARIO

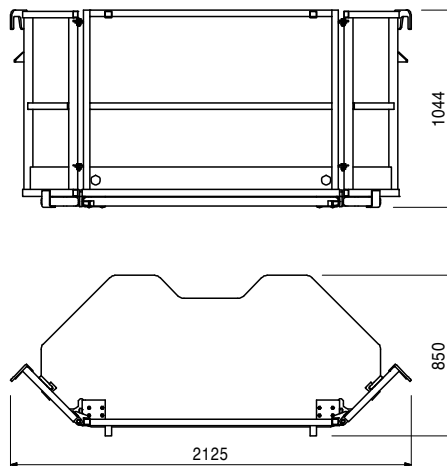
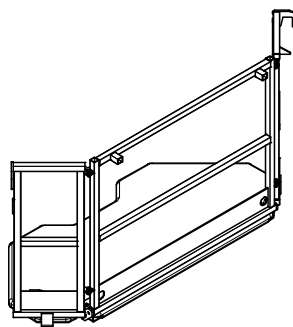
103992	65,600
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External Corner Platform VARIO

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

Technical Data

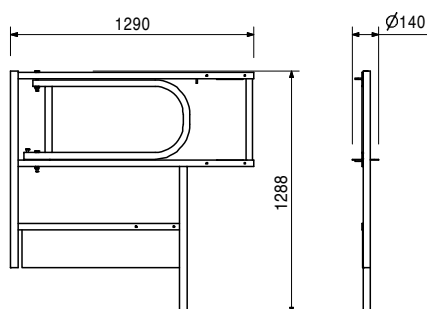
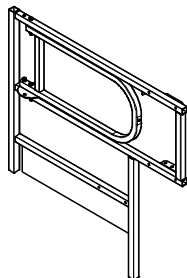
Permissible load 150 kg/m²



103865	22,000
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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.



VARIO GT 24 Girder Wall Formwork



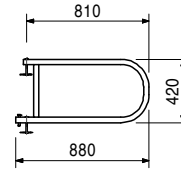
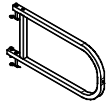
Item no.	Weight kg
100813	4,980

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.



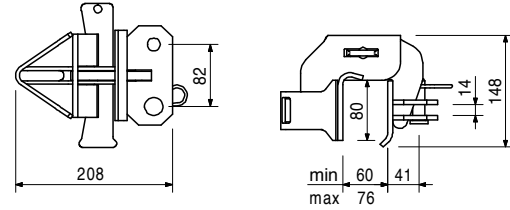
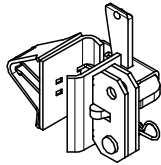
100541	4,020
--------	-------

Connector for Platform VARIO

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

Complete with

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



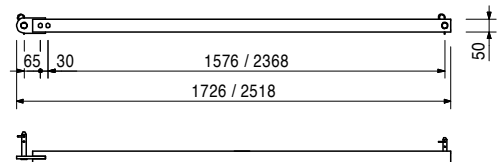
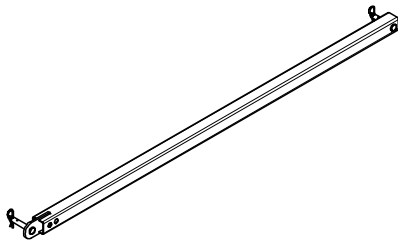
101273	7,780
101269	11,200

Platform Struts VARIO Platform Strut 167 VARIO Platform Strut 246 VARIO

For assembling VARIO platforms. 2 pieces per platform.

Complete with

2 pc. 018050 Bolt Ø 16 x 65/86, galv.
2 pc. 018060 Cotter Pin 4/1, galv.



VARIO GT 24 Girder Wall Formwork

Item no.	Weight kg
105823	9,270

Platform Bracket VARIO VBK 90

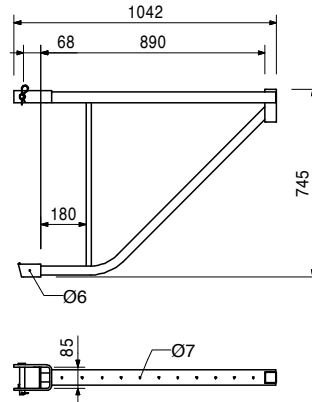
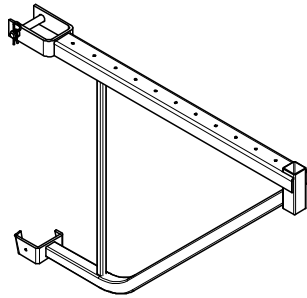
For assembly of a working and concreting scaffold on elements with GT 24 girders. With safety pins and cotter pins.

Complete with

1 pc. 106336 Bolt \varnothing 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.



Accessories

034580	3,520
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Guardrail Post HSGP-2

105480	16,600
105484	16,600

Platform Beams VARIO

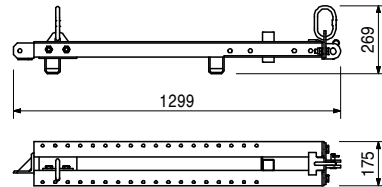
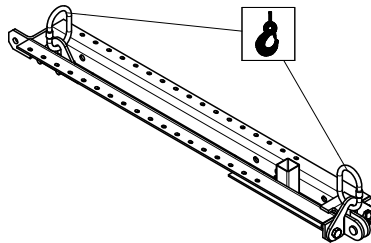
Platform Beam VARIO, left

Platform Beam VARIO, right

For assembling VARIO GT 24 filler platforms with bolted boarding.

Note

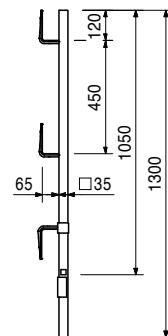
Illustration shows the VARIO Platform Beam, left.



116292	4,730
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Guardrail Post HSGP-2

As guardrail for different systems.

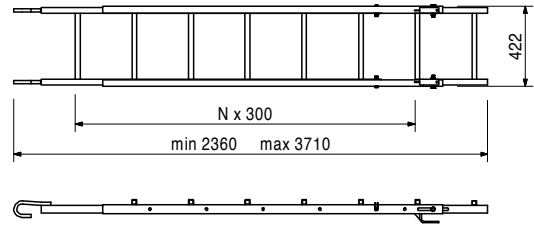
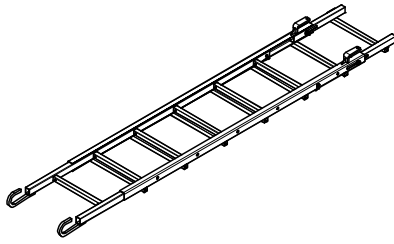


VARIO GT 24 Girder Wall Formwork



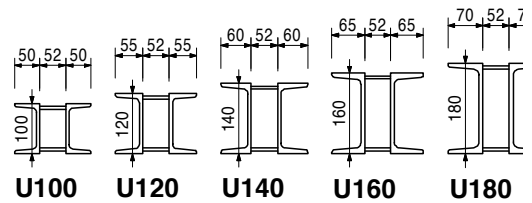
Item no.	Weight kg
107738	24,100

Ladder 240-360
Adjustable from 2.40 m to 3.60 m.



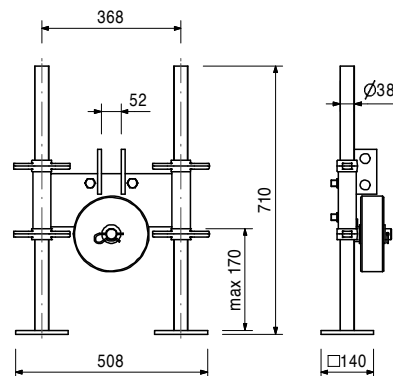
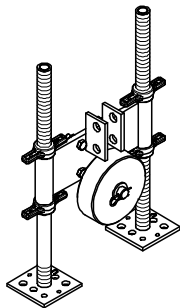
		Tunnel Frame Wales RKR
022310	22,000	Tunnel Frame Wale RKR U100
022320	28,000	Tunnel Frame Wale RKR U120
022330	33,000	Tunnel Frame Wale RKR U140
022340	40,000	Tunnel Frame Wale RKR U160
022350	45,000	Tunnel Frame Wale RKR U180
022460	0,000	Welding Unit for RKR

Note
When ordering, please use a copy of the respective version whilst specifying the dimensions. For the wall wales, the VARIO Extension (l= 236 mm) must always be added when determining the total length. Welded joints RKR (1 per wall waler) are to be featured separately.



		Double Spindles RKR
022380	23,500	Double Spindle with Wheel RKR
022440	20,800	Double Spindle without Wheel RKR

Complete with
4 pc. 710880 Washer DIN 434 18, galv.
1 pc. 710252 Bolt ISO 4017 M16 x 50-8.8, galv.
1 pc. 710229 Nut ISO 4032 M16-8, galv.
Technical Data
Bearing capacity of Double Spindle 102.5 kN.
Bearing capacity of Wheel 6.0 kN.



VARIO GT 24 Girder Wall Formwork



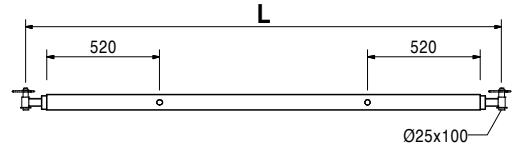
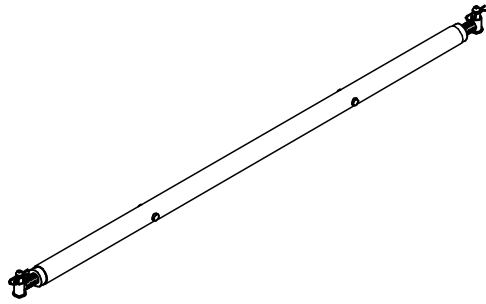
Item no.	Weight kg
022400	12,300

Adjusting Spindle RKR, compl.

For aligning RKR culvert frame formwork. Do not use for transferring loads.

Complete with

2 pc. 725560 Bolt \varnothing 25 x 100
2 pc. 018060 Cotter Pin 4/1, galv.



022410	19,600
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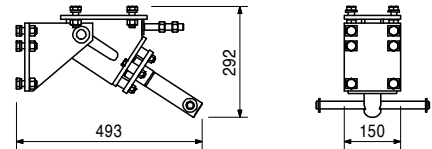
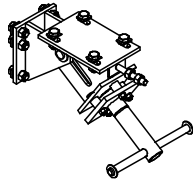
Corner Spindle RKR

Complete with

10 pc. 710880 Washer DIN 434 18, galv.
10 pc. 710225 Bolt ISO 4017 M16 x 45-8.8, galv.
10 pc. 710229 Nut ISO 4032 M16-8, galv.

Technical Data

Permissible load 90.0 kN.



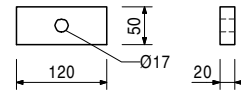
Accessories

701991	0,906
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Plate FI 50 x 20 x 120, ESP

701991	0,906
--------	-------

Plate FI 50 x 20 x 120, ESP





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- 38 Lithuania**
PERI UAB
02300 Vilnius
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www.peri.lt
- 39 Morocco**
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- 42 Iceland**
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220 Hafnarfjörður
www.armor.is
- 43 Kazakhstan**
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www.peri.kz
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- 45 South Africa**
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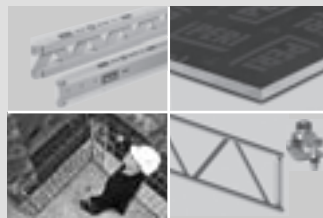
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