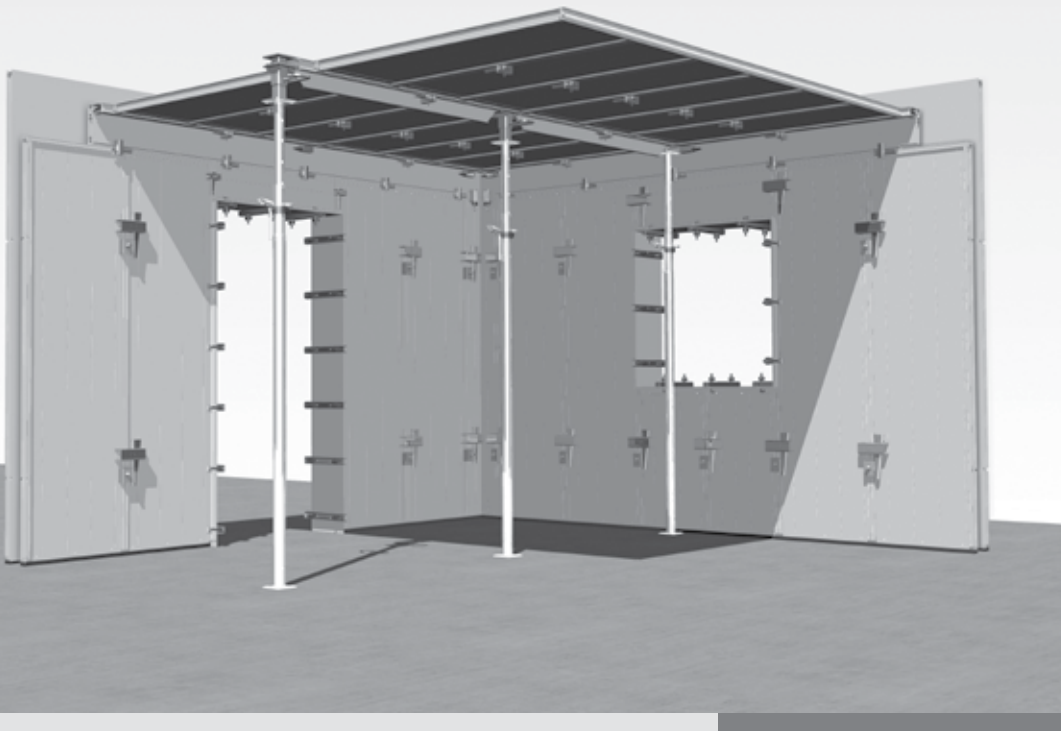


UNO

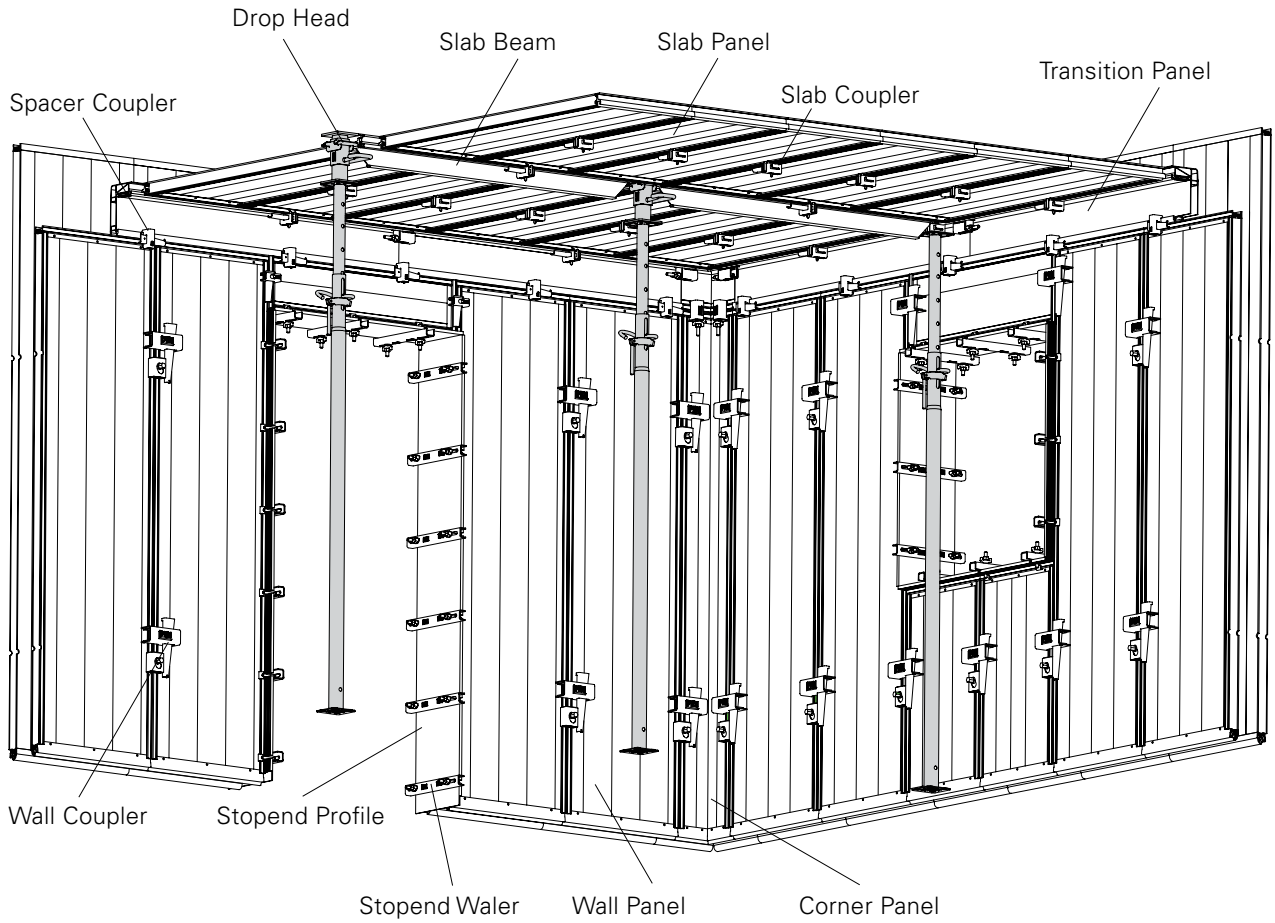
For monolithic construction

Assembly Instructions for Standard Configurations



Introduction

Overview



Content

Introduction

Overview	1
Standard Configuration	2
Intended Use	2
Safety Instructions	3
General	3

Element Assembly, Connecting Parts, Ties

A1	Wall Panels	
	Standard Widths	4
	Special Widths	5
	Wall Panel	5
A2	Corner Panels	
	Standard Widths	6
	Special Widths	6
	Corner Panels: Internal/External	7
A3	Slab Panels	
	Slab Panel	8
	Slab Beam	8
	Transition Panel	9
A4	Miscellaneous	
	Stoepend Profile UNO	11
A5	Panel Connections	
	Wall Coupler UNO	12
	Alignment Coupler UNO	12
	Slab Coupler UNO	12
	Spacer Coupler UNO	13
	Screw Coupler UNO	13
A6	Tie System	
	Placing Formwork	14
	Closing Formwork	15

Standard Configuration for Shuttering

B1	Panel Connections	
	Anchor Sleeve	16
	Wall Coupler	17
	Slab Coupler	17
B2	Internal Formwork	
	Internal Corners	18
	Straight Wall Sections	20
B3	Transition Wall - Slab	
	Transition Panel	22
	Screw Coupler	24
	90° Angle	26
B4	External Formwork	
	External Corners	30
	Alignment Coupler	33

B5	Openings	
	Shuttering with Wall Panels	34
	Shuttering with Stoepend Profiles	35
	Further Forming of Walls	37
B6	Stoepend Formwork	
	Stoepend Profile	38
B7	Beams	
	Side Formwork	39
	Soffit Formwork	40
	Stoepend Waler, Props	41
B8	Slab	
	Drophead	42
	Slab Beam	42
	Slab Element	43
	Connecting Slab Beams -	
	Transition Panel	45
	Further Forming of Slabs	46
B9	Aligning	
	L-Profile	48
	Spacer Spindle	49

Standard Configuration for Striking

C1	Stoepend Profile	50
C2	Wall Panels	
	External Panels	51
	Internal Panels	52
	Corner Panels	54
C3	Slab Panels	
	Layouts	55
	First Slab Area	59
	Additional Slab Areas	62
	Final Slab Area	63

Safety Equipment

D1	Handrail Post UNO	64
D2	Ladder Connector UNO	65
D3	Climbing Scaffold	66

Handling

E1	Panels	74
E2	Maintenance and Cleaning	76

Components Catalogue

Components Catalogue	78
----------------------	----

Key



Safety Instructions



Note



Visual Check



Tip



Load-bearing point

Introduction

Standard Configuration

General

With the PERI UNO formwork system, walls, columns, slabs, beams and stairways are realised using the monolithic construction method. The system offers a quick solution for forming of repetitive ground plans - both horizontally and vertically. Through the project-related prefabrication of the individual panels, almost every type of building geometry is possible.

All formwork elements are made of aluminum and its lightweight design allow crane-independent work operations.

With the ties being installed from one side only, drophead system and the small number of accessories, construction work is accelerated and material requirements and logistics are simplified.

Structural dimensions

Wall thickness: 8 - 30 cm

Slab thickness: 10 - 25 cm

Technical data

Permissible fresh concrete pressure:
80 kN/m², hydrostatic

Intended Use

1. PERI products have been exclusively designed as technical work equipment for use in the industrial and commercial sectors by suitably trained personnel.

2. These assembly instructions serve as the basis for the project-related risk assessment and the instructions for the provision and use of the system by the contractor(user). However, this does not replace these.

3. Only PERI original components may be used. The use of other products and spare parts 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 as well as being able to function properly.

5. Changes to PERI components are not permitted and represent a misapplication with associated safety risks.

6. Safety instructions and permissible loads must be observed at all times.

7. Components provided by the contractor must conform with the characteristics required in these assembly instructions as well as all valid construction guidelines and standards.

In particular, the following apply if nothing else is specified:

- timber components: Strength Class C24 for Solid Wood EN 338.
- scaffold tubes: 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 ensuring that no unintentional change in their position is possible. Detach lifting gear from the lowered units only if these are in a stable position and no unintentional change is possible.
3. When moving the components, make sure they are lifted and set down so that any unintentional tilting over, falling apart, sliding or rolling away is prevented.
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.

General

Additional PERI product information

- Instructions for Use: Pallets and Stacking Devices

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

A1 Wall Panels

A1.1 Standard Widths Wall and slab panels in 50 mm increments

150 mm
250 mm - 600 mm
(Fig. A1.01)

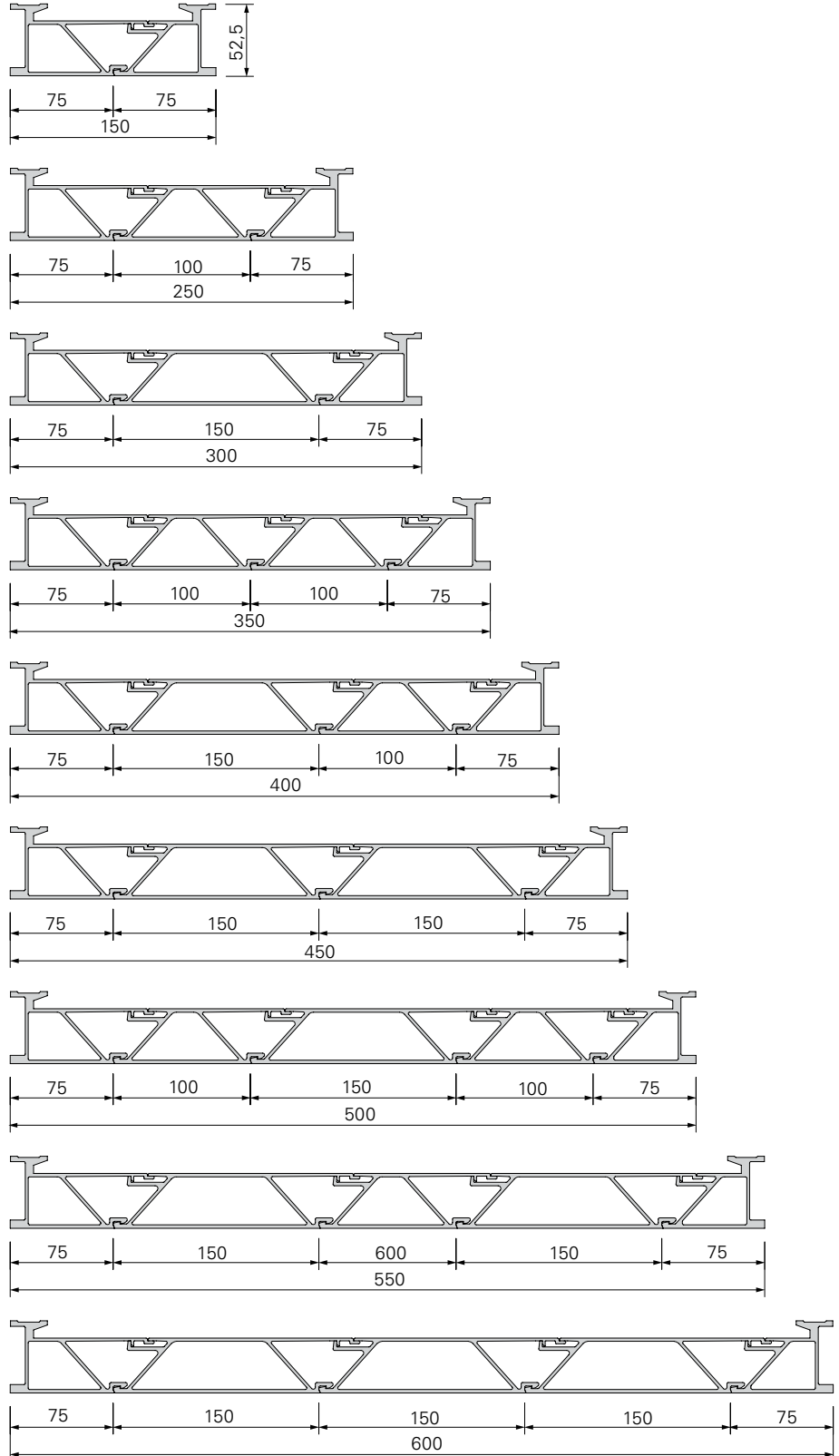


Fig. A1.01

A1 Wall Panels

A1.2 Special Widths
 Wall and slab panels in 1 mm increments
 100 mm - 600 mm
 (Fig. A1.02)

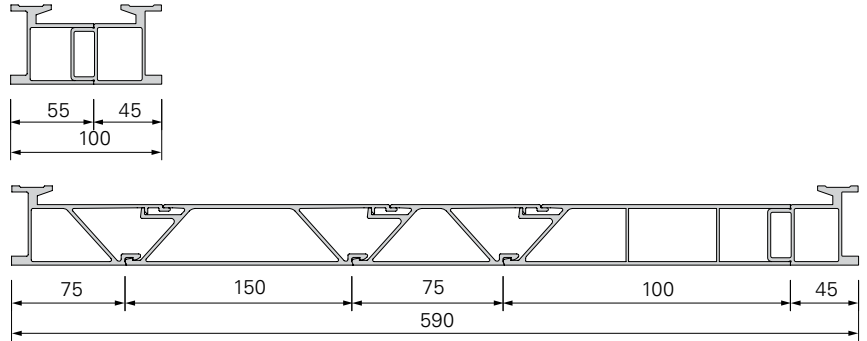


Fig. A1.02

A1.3 Wall Panel
 Individual components
 (Fig. A1.03)

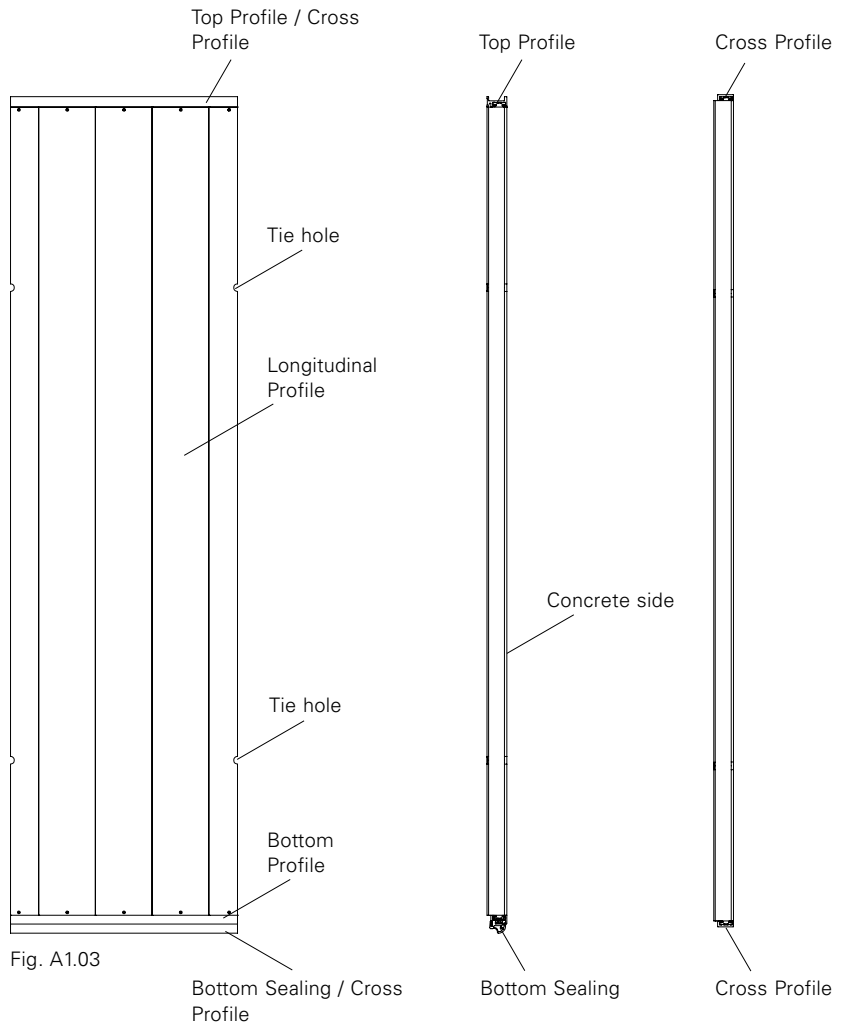


Fig. A1.03

A2 Corner Panels

A2.1 Standard Widths

Internal corner panels

200 x 200 mm

200 x 300 mm

300 x 300 mm

consisting of Internal Corner Profile 125/125, Edge Profile and Centre Profile (according to panel outside width) (Fig. A2.01)



Larger dimensions increase the weight of the panel and make striking more difficult.

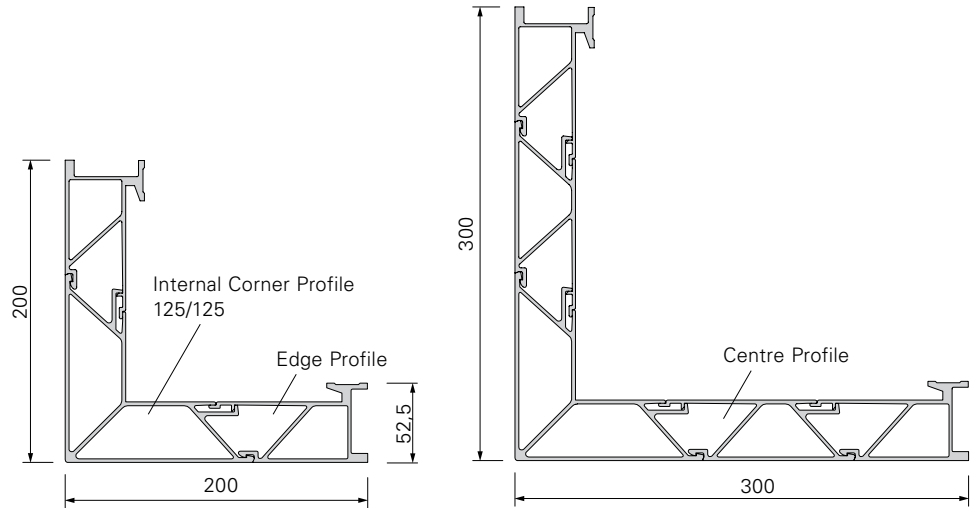


Fig. A2.01

A2.2 Special Widths

Internal corner panels in 1 mm increments

100 x 100 mm

100 x 200 mm

350 x 350 mm

(Fig. A2.02)

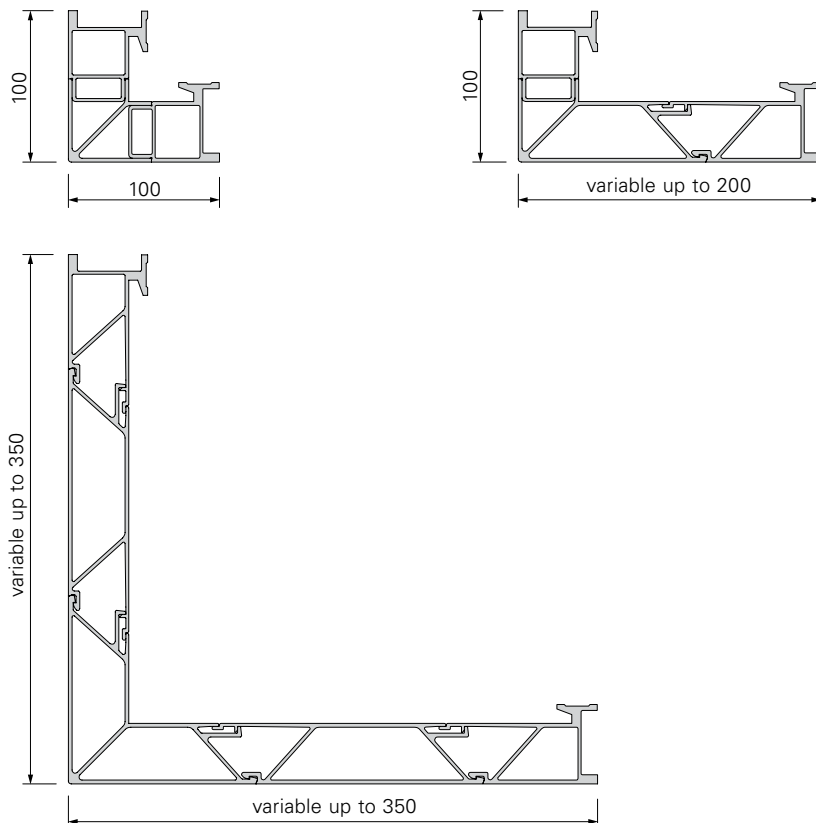


Fig. A2.02

A2 Corner Panels

A2.3 Corner Profiles Internal Corner Profile 125/125 (Fig. A2.03)

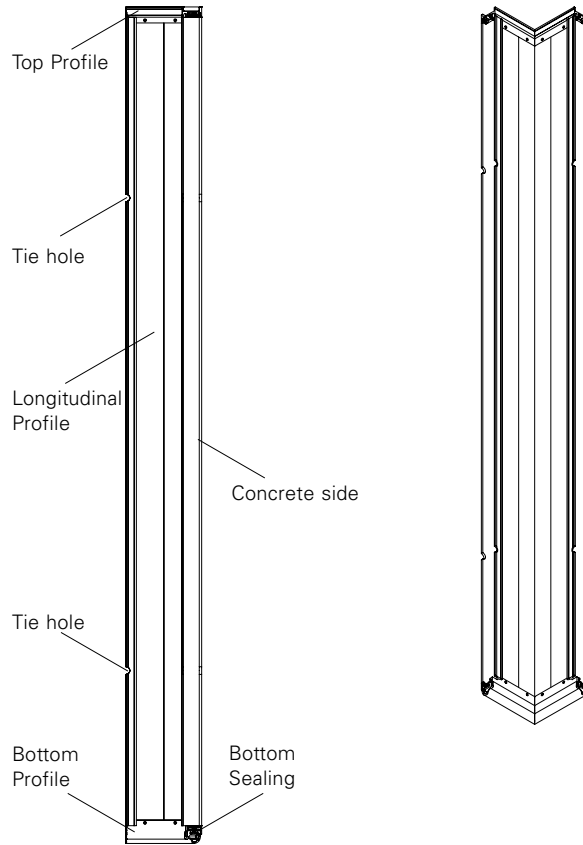


Fig. A2.03

Outside Corner Corner Profile A (Fig. A2.04)

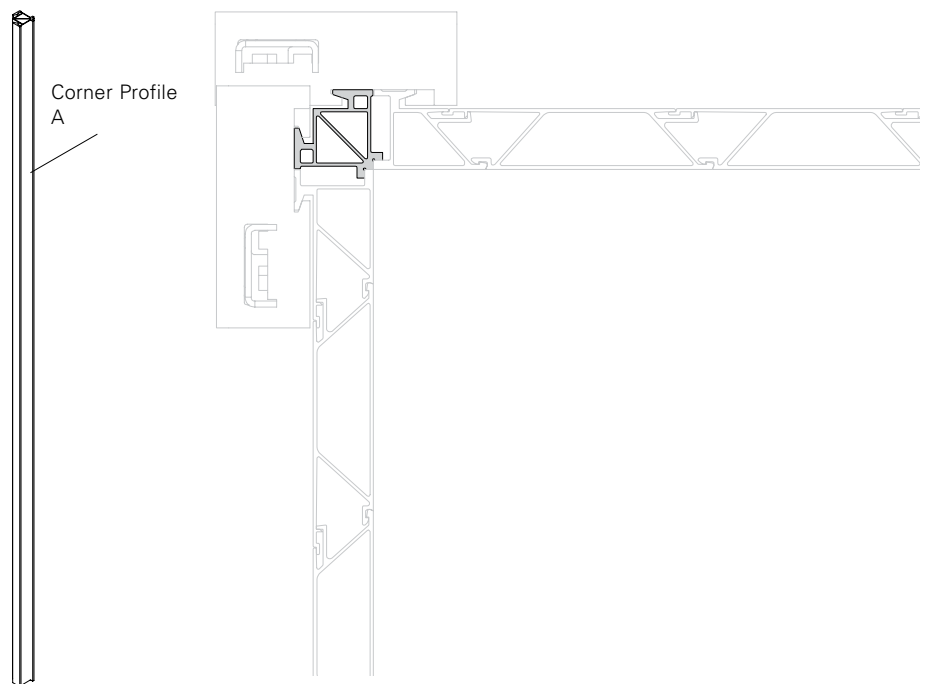


Fig. A2.04

A3 Slab Panels

A3.1 Slab Panel UNO

Standard and special widths: see A3.
(Fig. A3.01)

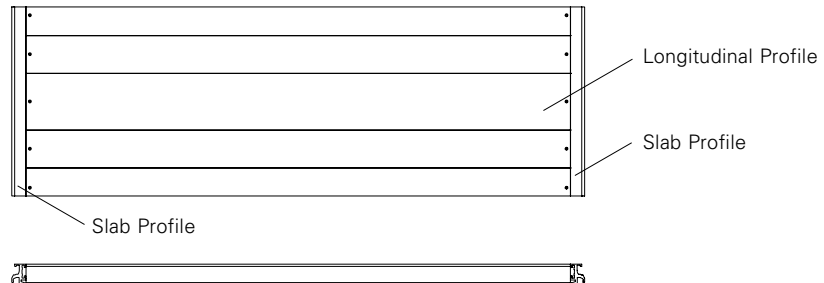


Fig. A3.01

A3.2 Slab Beam UNO

1. Mount Slab Beam UNO on Drop Head UNO.
 2. Fix Slab Panel UNO in the Slab Beam UNO.
- (Fig. A3.02 + A3.02a)

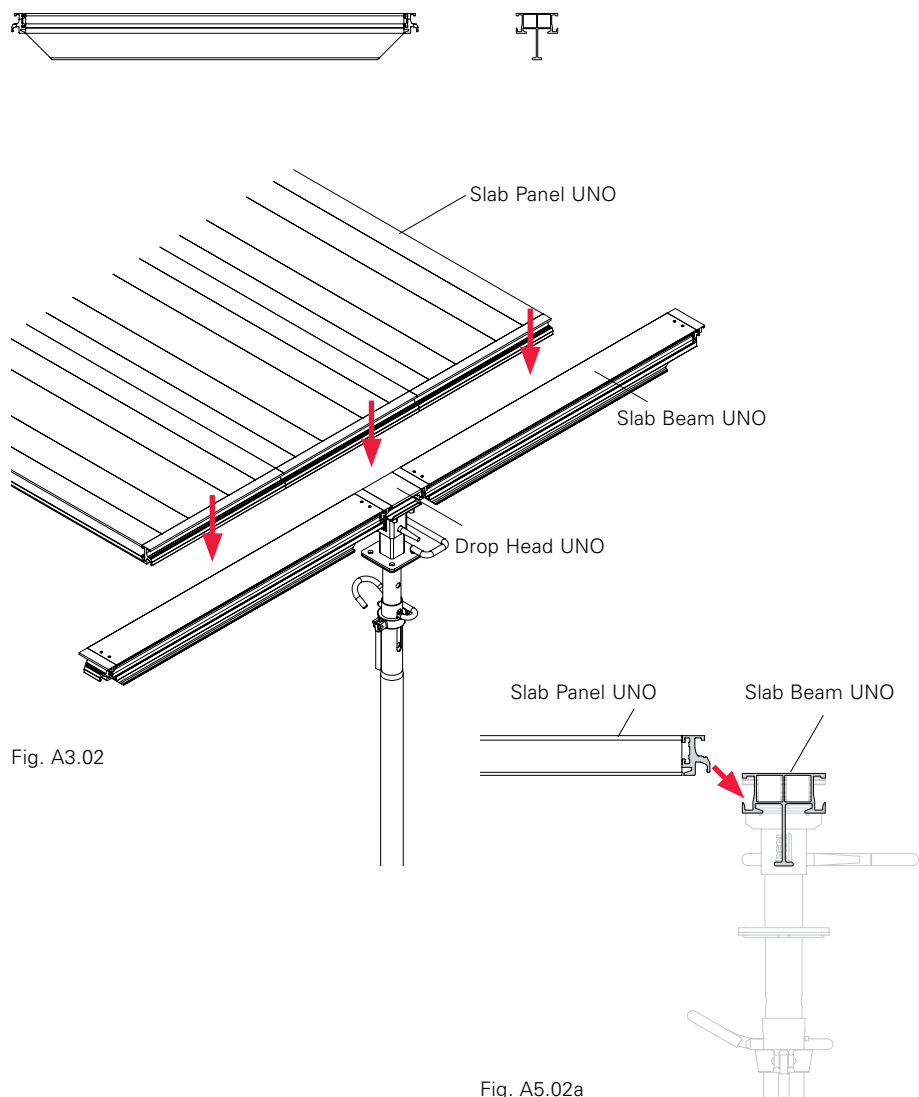


Fig. A3.02

Fig. A5.02a

A3 Slab Panels

A3.3 Transition Panel UNO

Flange Profile

Flange Profile together with Screw Coupler UNO for a tension proof connection.

(Fig. A3.03 + A3.03a)

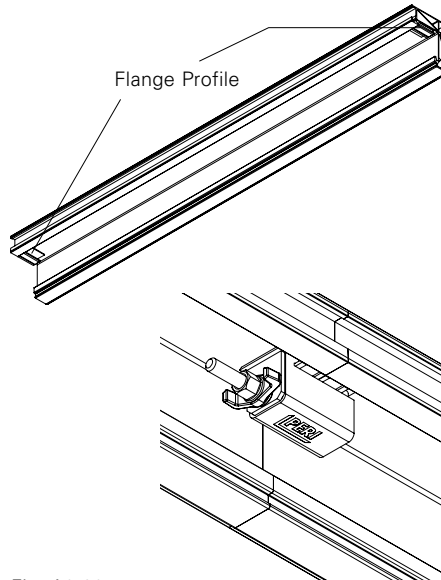


Fig. A3.03

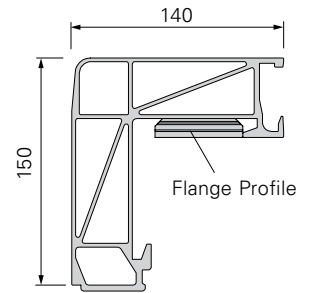


Fig. A5.03a

Wall panel and slab panel connection

1. Position Transition Panel on Wall Panel UNO and connect by means of the Spacer Coupler.

2. Place Slab Panel UNO in the Transition Panel and connect using the Slab Coupler UNO.

(Fig. A3.04)

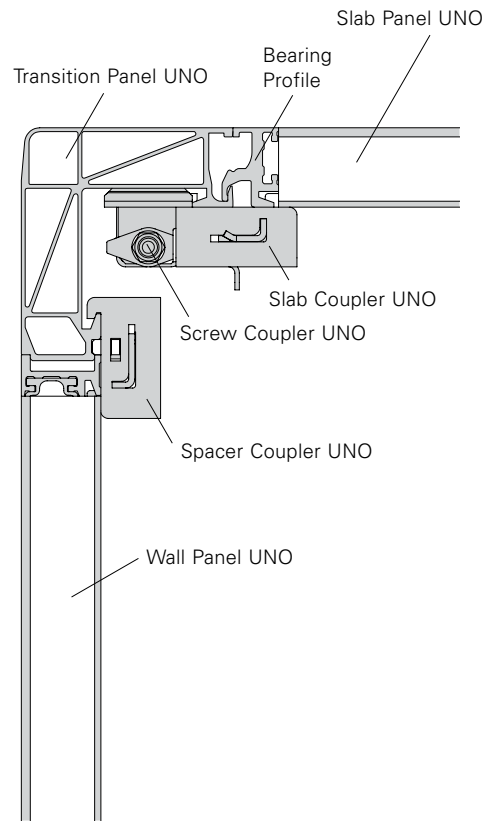


Fig. A3.04

A3 Slab Panels

Compensation area

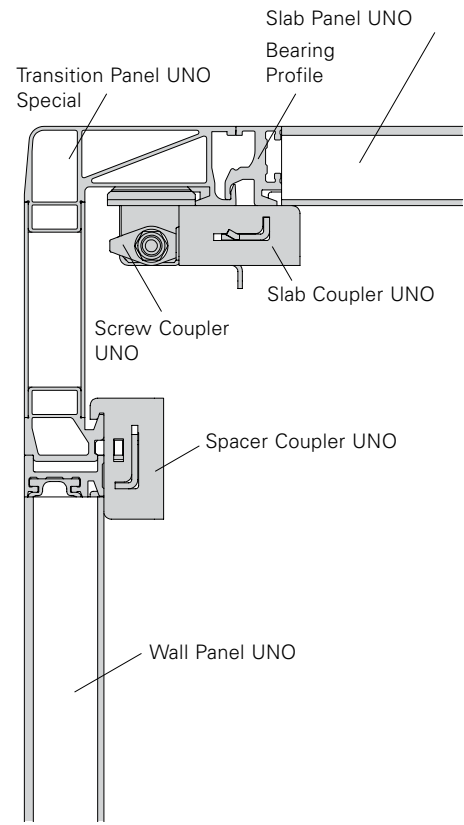
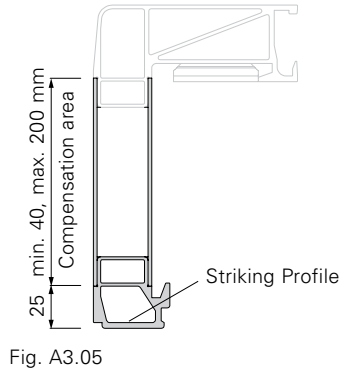
Transition Panel UNO Special
 Compensations in 1 mm increments.
 (Fig. A3.05)

Wall panel and slab panel connection

1. Position Transition Panel on Wall Panel UNO and connect by means of the Spacer Coupler.

2. Place Slab Panel UNO in the Transition Panel and connect using the Slab Coupler UNO.

(Fig. A3.06)



A4 Miscellaneous

A4.1 Stopend Plate UNO

For setting stopends of openings, stopend formwork and as slab formwork for beams.

Three profile widths are available:

- 275 mm for wall thickn. 80 - 160 mm
- 335 mm for wall thickn. 140 - 220 mm
- 415 mm for wall thickn. 220 - 300 mm

The Stop End Profiles are adapted to suit the wall thickness in 1 cm increments. (Fig. A4.01)

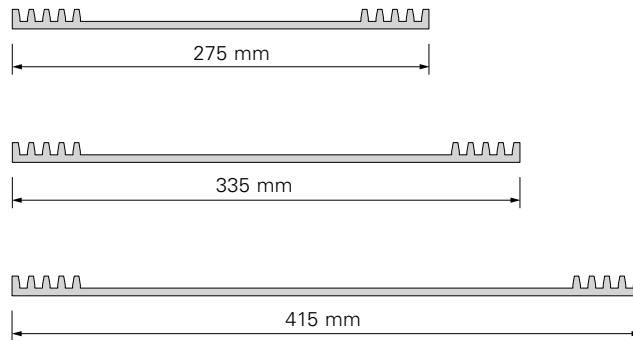


Fig. A4.01

Cut-Outs
(Fig. A4.02)

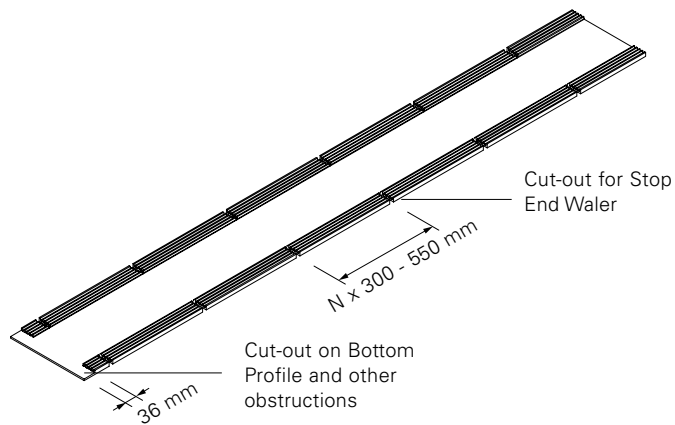


Fig. A4.02

Example with Stop End Profile UNO for wall thickness 80 - 160 mm (Fig. A4.03)

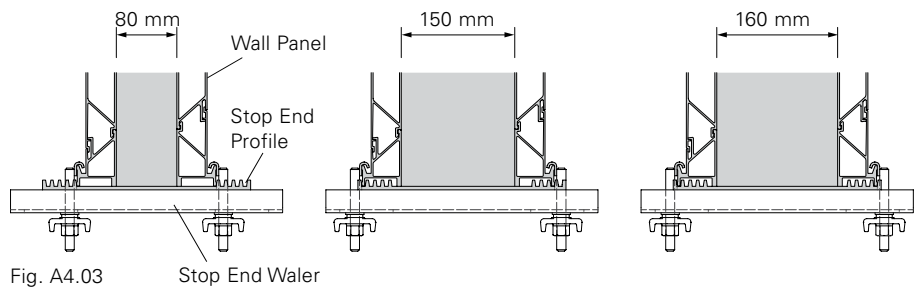


Fig. A4.03

A5 Panel Connections

Five different couplers are available for connecting the panels:

- Wall Coupler UNO
- Alignment Coupler UNO
- Slab Coupler UNO
- Spacer Coupler UNO
- Screw Coupler UNO

Wall Coupler, Slab Coupler and Screw Coupler can also be used in other areas provided that this is spatially possible.

A5.1 Wall Coupler UNO

With the Wall Coupler UNO, wall panel joints are guaranteed to be flush and very tight. The Wall Coupler UNO can be attached directly above the Tie Rod UNO.

(Fig. A5.01)

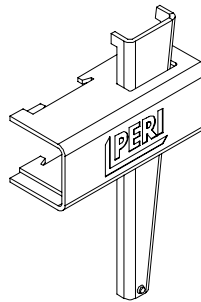


Fig. A5.01

A5.2 Alignment Coupler UNO

Wall panels are aligned by means of the Alignment Coupler UNO and one Angle Profile 80x90x6.

(Fig. A5.02)

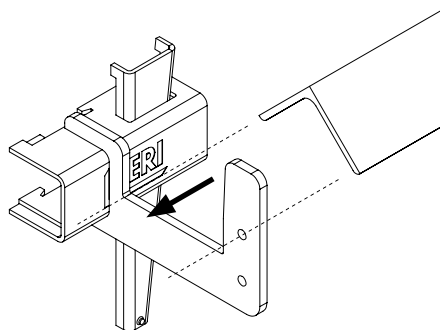


Fig. A5.02

A5.3 Slab Coupler UNO

With the Wall Coupler UNO, slab panel joints are guaranteed to be flush and very tight. The lug secures the slab props against tilting.

(Fig. A5.03)

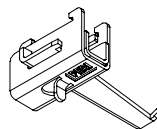


Fig. A5.03

A5 Panel Connections

A5.4 Spacer Coupler UNO

The Spacer Coupler UNO connects the Transition Panel with the Wall Panel. The space coupler transfers the dead weight of the slab formwork and the fresh concrete load of the slab into the wall panel.
(Fig. A5.04)

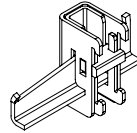
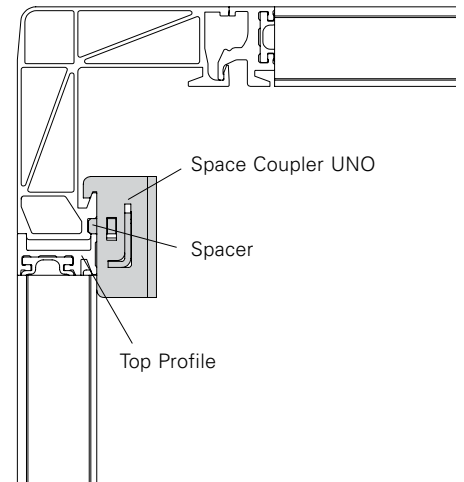


Fig. A5.04



A5.5 Screw Coupler UNO

The Screw Coupler UNO connects panels in spatially confined conditions.

Examples:

- corner areas wall / slab
- transition panels
- stairways
- if the wedge of the wall or slab coupler can only be hit from bottom to top.

A hammer or SW19 wrench can be used.

(Fig. A5.05)

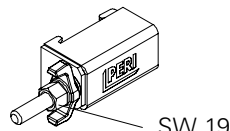


Fig. A5.05

A6 Tie System

Wall panels facing each other are connected with the Tie System UNO. Ties are available for wall thicknesses from 8 cm to 30 cm and are fitted in 1 cm increments.

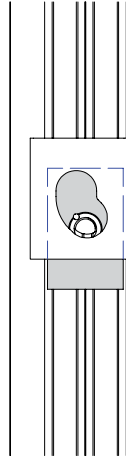
Perm. load on the tie 50 kN

A6.1 Placing Formwork

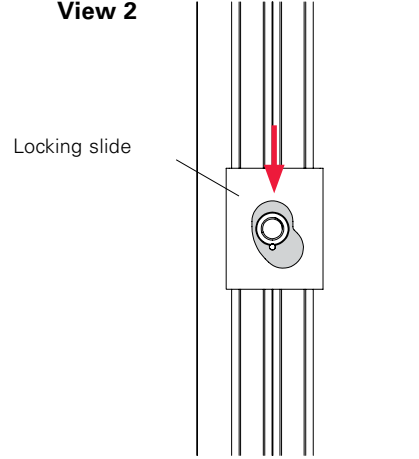
Mount Anchor Sleeve on the panel edge in the tie hole and pull down locking slide.

View 1 + 2 (Fig. A6.01)

View 1

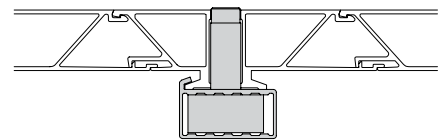
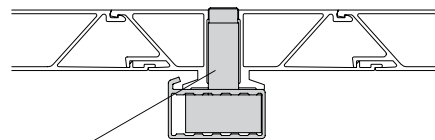


View 2



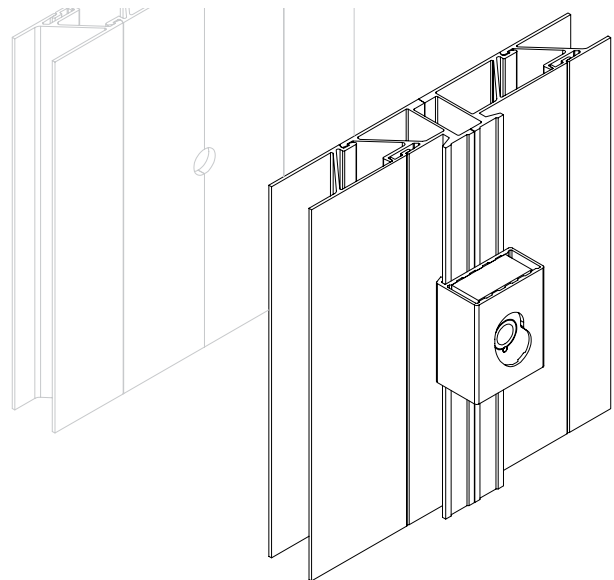
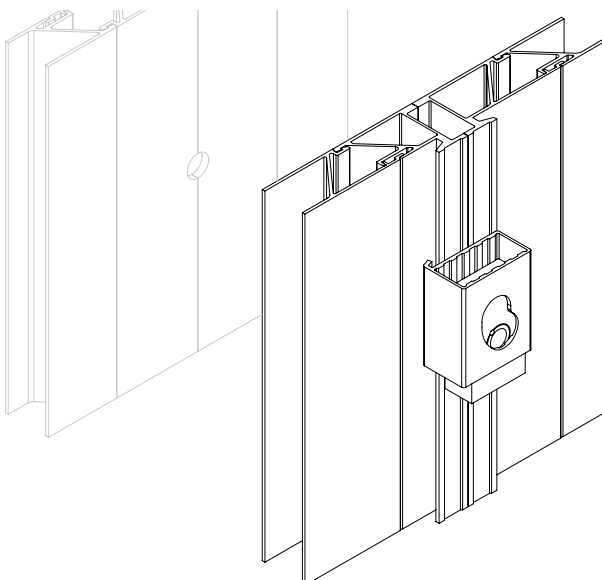
Locking slide

Top view of the wall formwork



Anchor Sleeve

Fig. A6.01



A6 Tie System

A6.2 Closing Formwork

From the position of the closing formwork, screw the tie rod into the Anchor Sleeve (SW 19), push the locking slide upwards.

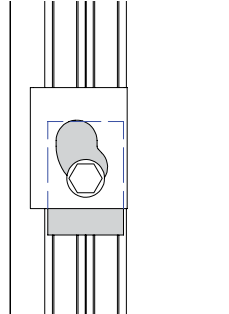
Just before the final tightening of the tie rod, pull the locking slide downwards and then finish screwing in the tie rod.

View 3 + 4 (Fig. A6.02)

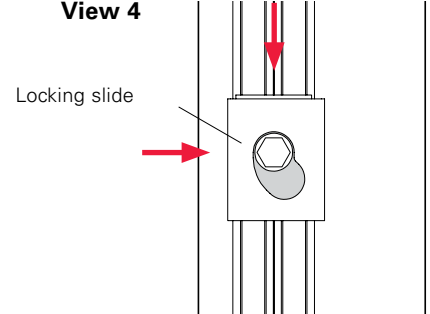


Do not use excessive force to screw in the tie rod!

View 3



View 4



Top view

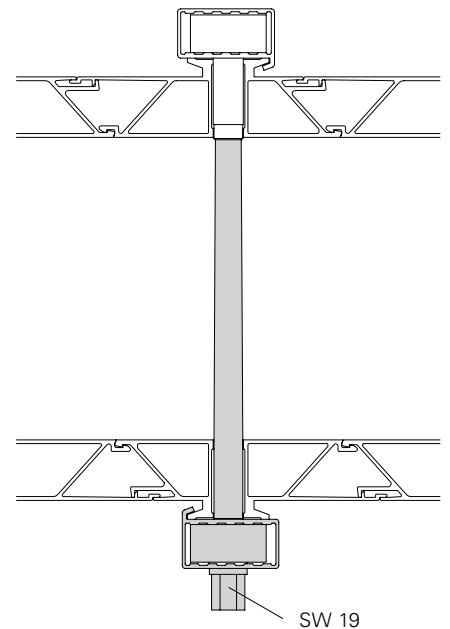
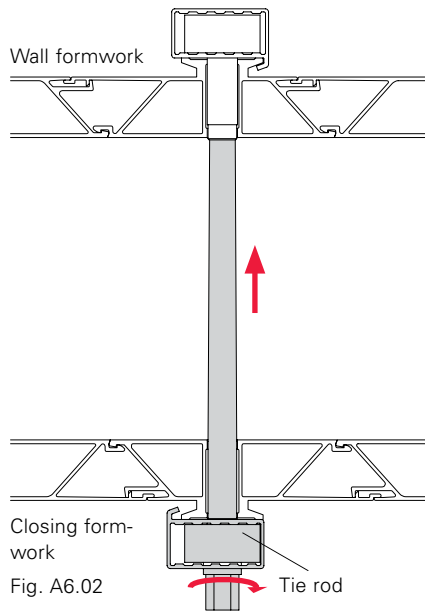
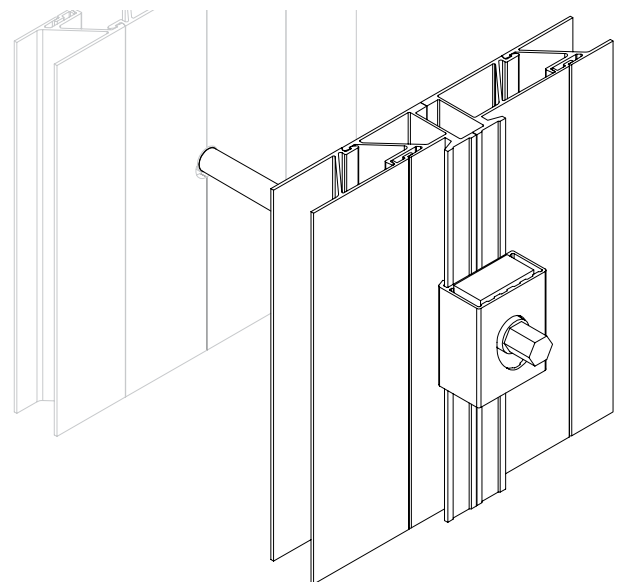
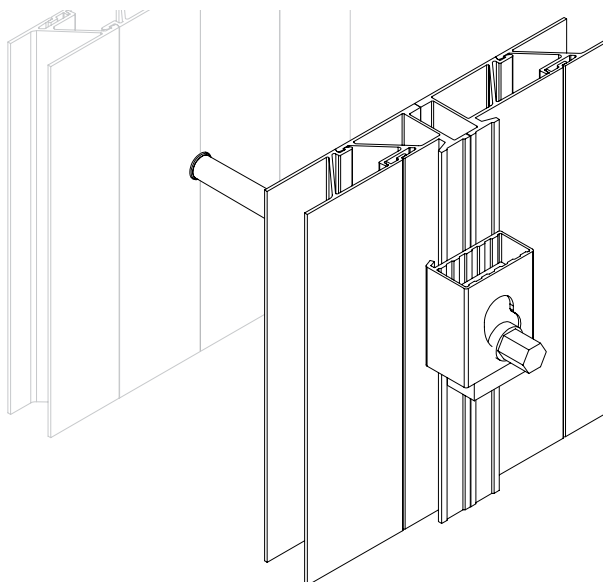


Fig. A6.02

Tie rod

SW 19



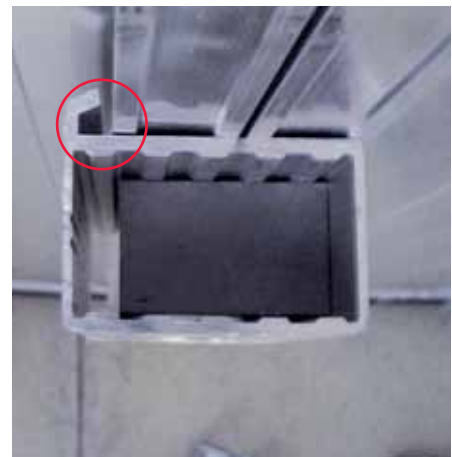
B1 Panel Connections

Anchor Sleeve UNO

Install anchor sleeve before positioning the panels. In every forming direction on the right side of the panel. As a result, the next panels installed are height-aligned and fine adjustments are made easier.



Place Anchor Sleeve together with the locking slide which has been pushed upwards in the tie hole.



The nose of the locking slide is positioned against the Edge Profile.



Is the Anchor Sleeve mounted in the Edge Profile?



When the Anchor Sleeve is positioned on the Edge Profile, push the locking slide downwards.



The nose of the locking slide locks onto the Edge Profile.

UNO - for monolithic construction

B1 Panel Connections

Wall Coupler UNO



The wider end of the wedge is always at the top!



Place wedge in upper end position.



Place Wall Coupler on the Edge Profile with one hand.



Hammer in wedges tightly after the slab has been shuttered!



Loosen wedge - wedge falls to a middle position.



Lightly hammer in wedge with a rubber or plastic hammer.

Slab Coupler UNO



Swivel in Slab Coupler.



Push wedge into closing position.



Secure wedge.

B2 Internal Formwork

General

- Always begin in an internal corner or external corner.
- See plan for panel and profile dimensions, likewise number and position of the couplers.
- In the following example, the start is made using the internal corner.



If conditions are windy and the assembly area is uneven, the corner area is to be secured by means of push-pull props!



Position the Internal Corner Panel.



Insert the Anchor Sleeve on the right-hand side of the panel and secure, see A6.

Internal Corners

Work is carried out from the corner to the right.



Push the next Wall Panel with the semi-circular cut-outs over the Anchor Sleeve.



Connect the Wall Panel and Corner Panel with Wall Couplers - see plan for number of couplers used.



When the semi-circular tie cut-outs form a circle, height adjustment of the Wall Panel has been completed.

B2 Internal Formwork

Work is carried out from the corner to the left.



Insert the Anchor Sleeve on the right-hand side of the next panel and secure.



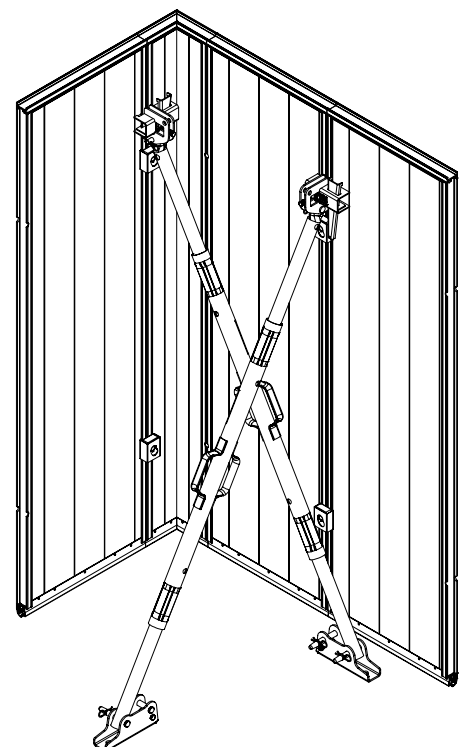
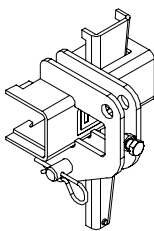
Push the Wall Panel with the Anchor Sleeves in the semi-circular cut-outs of the Corner Panel. Carry out any necessary height adjustments.



Connect the Wall Panel and Corner Panel with Wall Couplers - see plan for number of couplers used. The internal corner area is now assembled and is in position.

Push-Pull Props

If necessary, secure the corner area with Push-Pull Props. Connecting the Push-Pull Prop to the Brace Connector UNO, Item no. 123559.



B2 Internal Formwork

Straight Wall Sections

Position Wall Panels

Starting from the internal corner, position additional Wall Panels in both directions until the Transition Panels can be installed.

Work is carried out from the corner to the left.



Install Anchor Sleeve and secure.



Position Wall Panel.



Connect Panels with Wall Couplers.
Take height adjustments into consideration.



Visual check of the tie positions.



B2 Internal Formwork

Work is carried out from the corner to the right.



Visual check of the tie positions.



B3 Transition Wall - Slab

Transition Panel

General

- The Transition Panel connects the Wall and Slab Panels.
- See plan for panel and profile dimensions, likewise number and position of the couplers.



Begin in the corner with the Transition Panel with Corner Piece.

Space Coupler UNO

Forms a tension and compression-proof connection between the Wall Panel and Transition Panel.



Swivel in the Space Coupler from above - the wedge is always on the left.



The Space Coupler must be securely positioned in the joint.



Secure wedge.

B3 Transition Wall - Slab

The Transition Panel in the corner is now installed.



Install the second Spacer Coupler on the other side of the wall.



Place the straight Transition Panel on the Wall Panel.



B3 Transition Wall- Slab

Screw Coupler UNO

Forms a tension-proof connection between the Transition Panels and secures the straight Transition Panel against tipping during installation.



Push Screw Coupler over the Flange Profile.



Screw on nut by hand.



Tighten with wrench or ratchet.

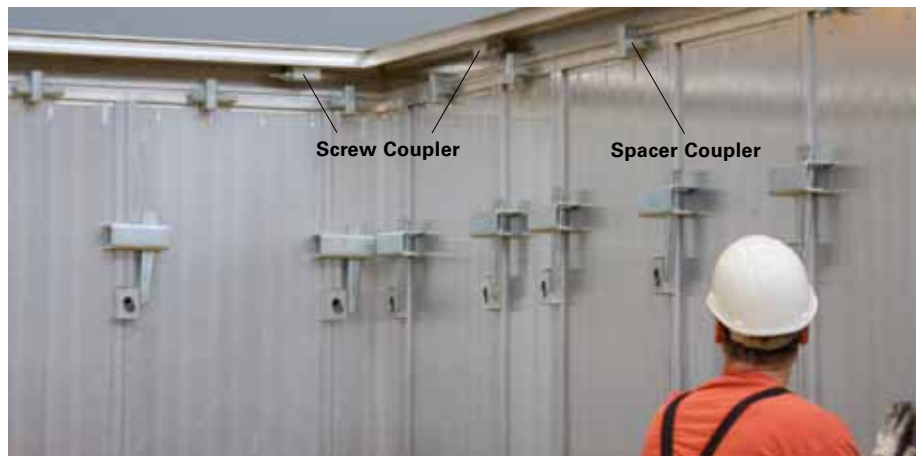


The Screw Coupler is now installed.

B3 Transition Wall- Slab



Install additional Spacer Couplers according to the plan.



Screw Coupler is likewise installed on the second side of the wall.
Install additional Spacer Couplers in accordance with the plan.

B3 Transition Wall- Slab

Creation of a 90° angle between two wall sides

Slab Beam UNO



Level the position of the Slab Beam.



Mount the Slab Beam in the Transition Panel.



B3 Transition Wall- Slab

Support



Mount the Slab Prop with Drop Head in the Beam Head, see B8.



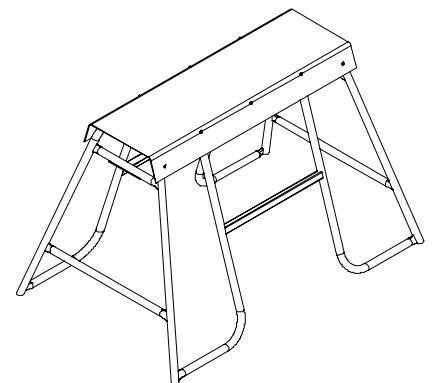
Swivel up the Slab Beam and align.



The beam end on the Transition Panel must always be supported by a slab prop!



Connect the Slab Beam and Transition Panel with Slab Couplers and support with slab props.



As contact area use, e.g. one PERI Trestle P80.

B3 Transition Wall- Slab

Creation of a 90° angle between two wall sides

A 90° angle is realised through the installation of a Slab Panel in the corner of two wall sides.

Slab Panel UNO



Risk of falling!

Slab formwork can be accessed only if:

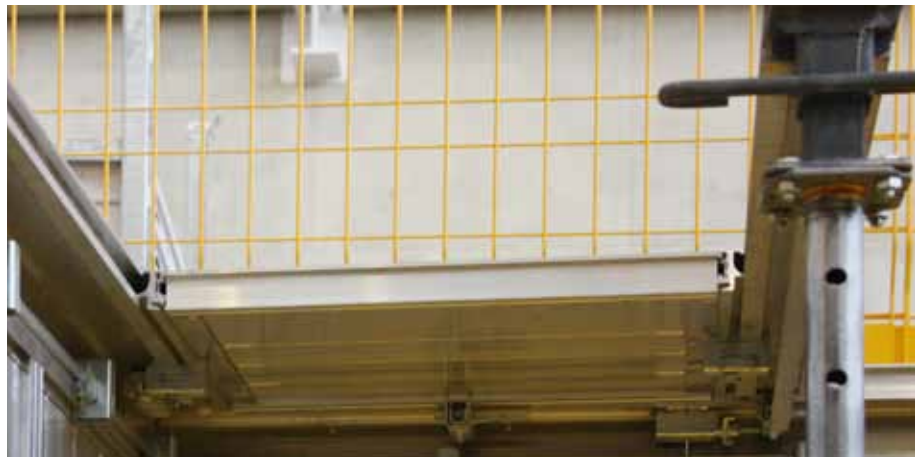
- all slab panels have been secured with the required number of slab couplers!
- all slab beams have been installed!
- all required slab props have been mounted with secure friction-locked connections!



Place Slab Panel between the Transition Panel and Slab Beam.



Secure Slab Panel by means of slab couplers, see plan.



The Slab Panel is now installed.

If it is possible, position second Slab Panel and secure with slab couplers in accordance with the plan.



B3 Transition Wall- Slab

Alternative 1:



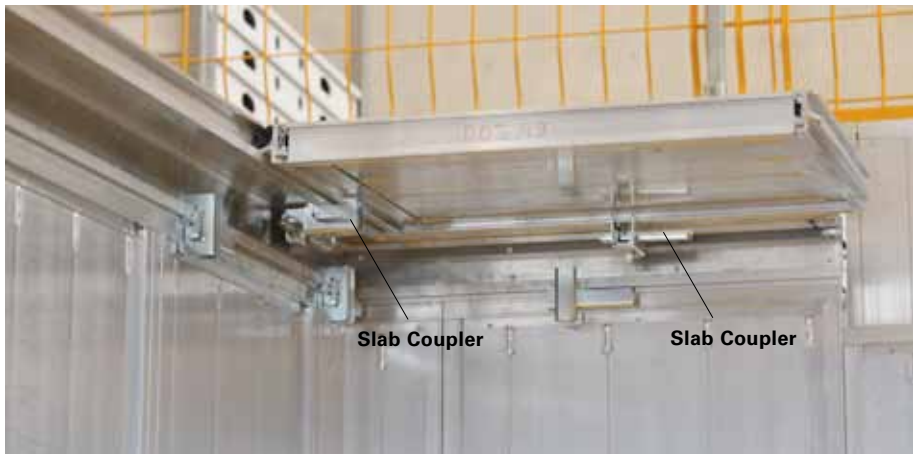
Position Slab Panel without Slab Beam. Secure with one slab coupler per panel side.



Risk of falling!

Slab formwork can be accessed only if:

- all slab panels have been secured with the required number of slab couplers!
- all slab beams have been installed!
- all required slab props have been mounted with secure friction-locked connections!



The Slab Panel is secure and remains fixed in position.

Alternative 2:

Alignment of the internal corner formwork to form a 90° angle with doweled battens.



B4 External Formwork

External Corners

See plan for panel and profile dimensions, likewise number and position of the couplers.



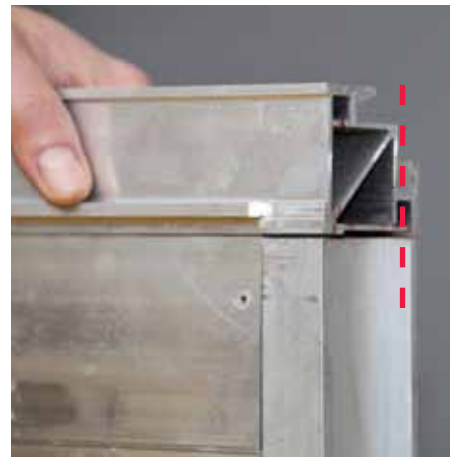
Position first Wall Panel of the external corner.



Mount External Corner Profile.



Place External Corner Profile in the Edge Profile of the Wall Panel.



The External Corner Profile is flush with the top edge of the Wall Panel.



Connect the External Corner Profile and Wall Panel with Wall Couplers.



Hammer in wedge tightly.

B4 External Formwork

External Corners



Push second Wall Panel into the External Corner Profile and connect by means of Wall Couplers.



The external corner is now complete.



Position External Corner.

B4 External Formwork

Wall area

Work is carried out from the corner to the right.



Install ties on one side - below.



Install ties on one side - above.



Hold locking slide in the top position. Screw in anchor by hand.



Push locking slide downwards. Tighten anchor with wrench or ratchet.



Position the next Wall Panel.



Connect using Wall Couplers.



Install anchors. Panel, Couplers, Anchor.

B4 External Formwork

Wall area

Work is carried out from the corner to the left.

Install anchors at first, then the Wall Couplers.
Secure Wall Panel against tipping over until the Wall Couplers are installed, e.g. another person.



Prepare Wall Panel for installation.



Install anchors.



Install anchors.



Connect Panels with Wall Couplers.
Tighten anchors.

Alignment Coupler UNO

For those wall areas on which an Alignment Profile is to be fitted, the Wall Coupler is to be replaced by an Alignment Coupler, see B9.



Alignment Coupler UNO



Install Alignment Couplers on every panel joint. Secure in the same way as a Wall Coupler.

B5 Openings

Shuttering



Mount Screw Coupler on the External Lintel Panel. Lift the External Lintel Panel.



Attach Lintel Panel with Wall Couplers.



Visual check of the tie positions.



Take height adjustments into consideration.



Lift Internal Lintel Panel and secure with Wall Couplers.



Position Wall Panels next to the opening and connect by means of Wall Couplers.



B5 Openings

Shuttering with Stop End Profiles and Stop End Walers



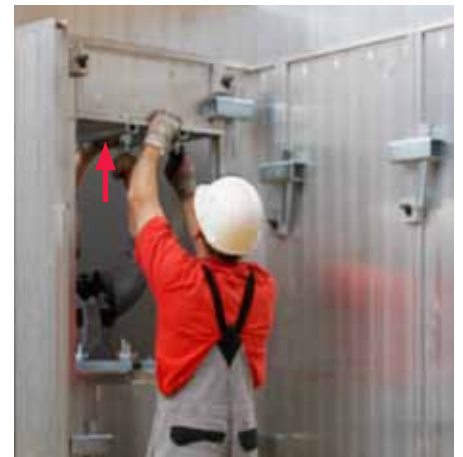
The teeth of the Stop End Profile must be fully engaged in the Top Profile and Edge Profile.



Bottom Formwork



Fix bottom formwork by means of Stop End Walers.



Install soffit formwork.



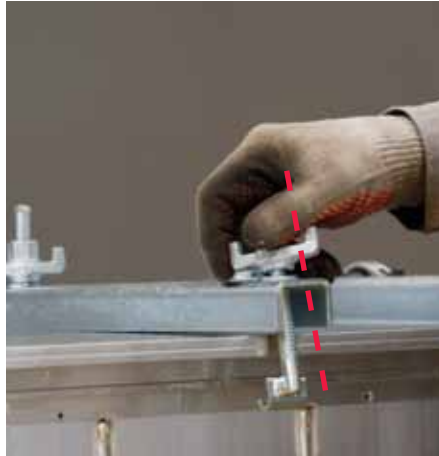
Side formwork is positioned between the bottom formwork and soffit formwork- this needs to be supported.



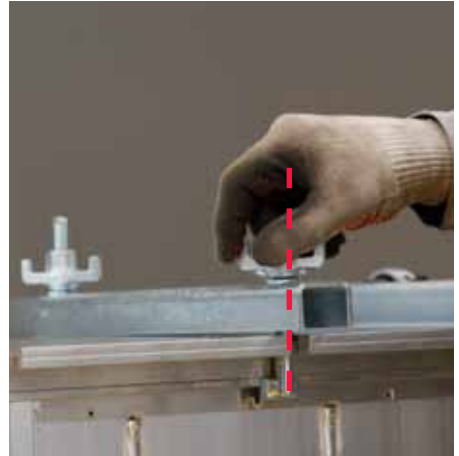
The stopend formwork for the opening is now ready.

B5 Openings

Mount Stop End Walers



Place hook screws at an angle.



Swivel hook under the Top Profile.



Tighten nuts by hand.



Firmly tighten nut with a spanner.

B5 Openings

Continue forming walls



Shutter additional Wall Panels.



Continuously install Transition Panels.

B6 Stopend Formwork

Mount Stop End Profile



Check required wall thickness!



Starting from below, push Stop End Profile onto the front end of the Wall Panel. Check the wall thickness.



Mount Stop End Walers

Top view



The teeth of the Stop End Profile must be fully engaged in the Edge Profile.

B7 Beams

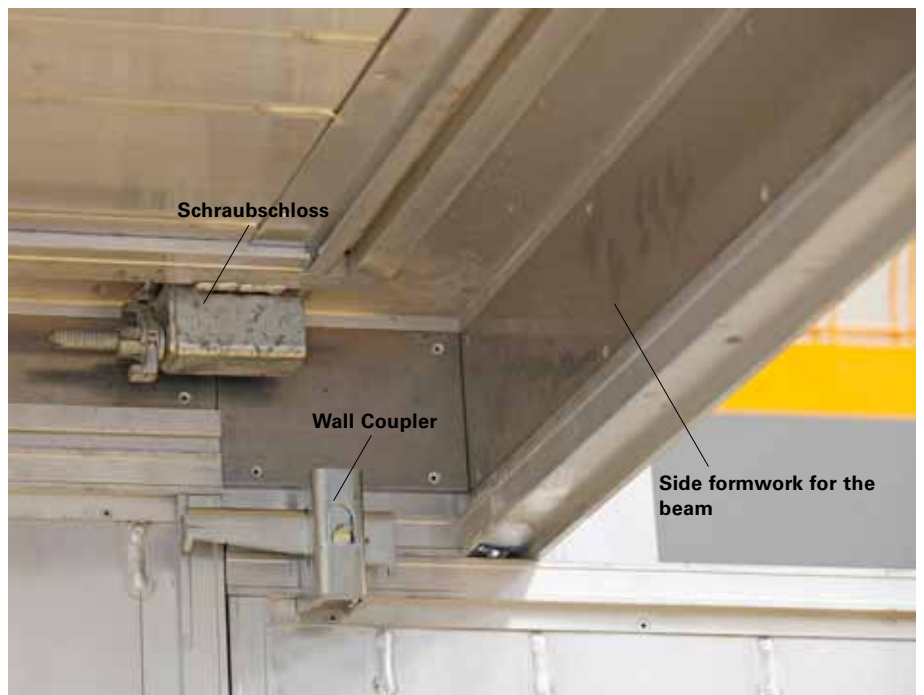
Install side formwork



Install side formwork for the beam.



Connect side formwork and Wall Panel with wall, slab and screw couplers, see plan.



B7 Beams



Lift second set of side formwork for the beam.



Connect side formwork and Wall Panel with wall, slab and screw couplers, see plan.



Lift soffit formwork for the beam (Stop End Profile).



Mount Stop End Walers

B7 Beams



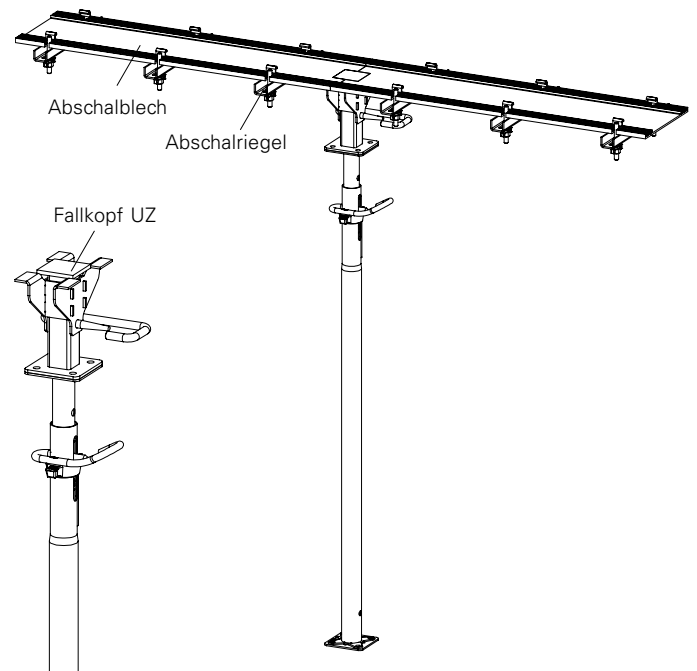
Mount Stop End Walers



The beam formwork is now assembled.



If necessary, position push-pull props, see plan.



Alternative: install Stop End Profile for use with Drophead UZ. Place slab props with mounted Dropheads UZ in position.

B8 Slab

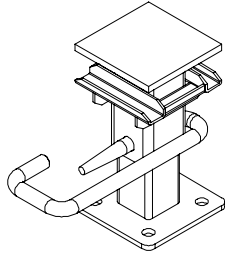
Shutter slab

see A3

Preparing the slab props

Drop Head UNO

Fix Drop Head diagonally on the slab prop with 2 x Hex. Bolts M 12x30.



Slab Beam UNO



Level the position of the slab prop.



Attach the Slab Beam to the Transition Panel.



Mount slab prop with drop head in the slab beam from below.



Place slab prop in a perpendicular position and spindle out to reach the required height until the slab beam is horizontal (spirit level).

B8 Slab



Align Drop Head in the beam axis.



Mount beam end in the Drop Head and swivel up Slab Beam.



Until the slab prop is standing vertically - the Drop Head is flush with the top side of the beam.

Slab Panel UNO



The Slab Panel must be fully engaged in the support pockets; the position of the Slab Beam may have to be changed.

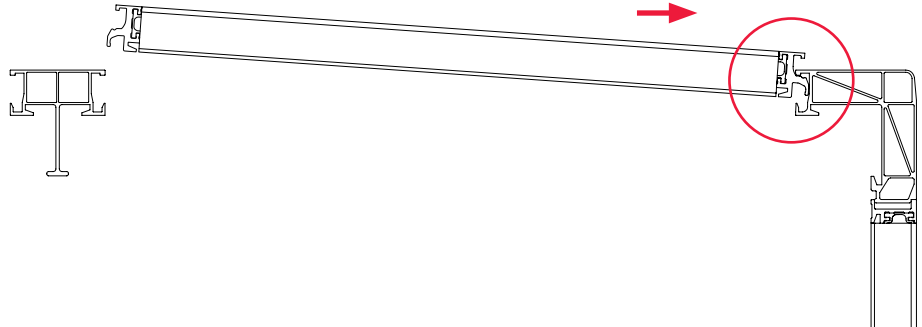


Insert the first Slab Panel and secure on three sides with Slab Couplers.

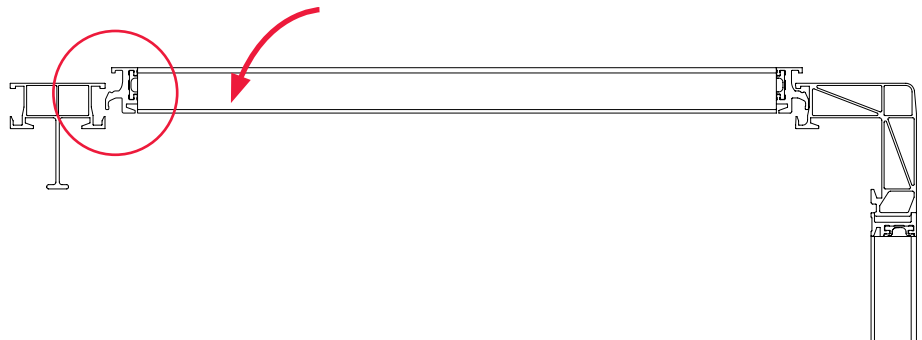
B8 Slab

Insert Slab Panels

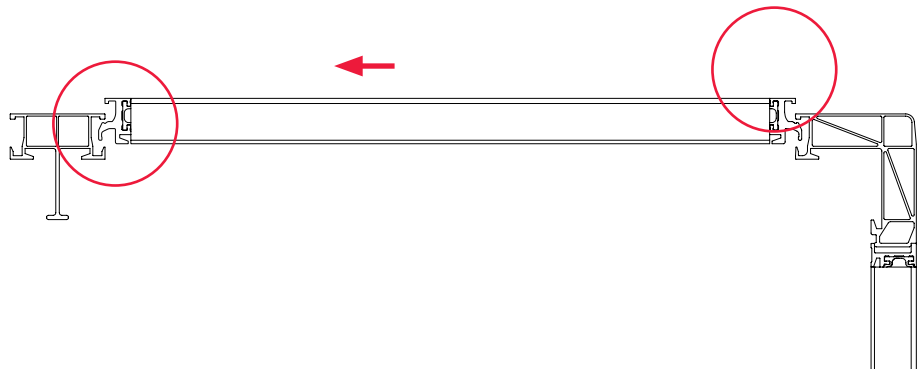
Insert Slab Panel on one side into the Slab Edge Profile.



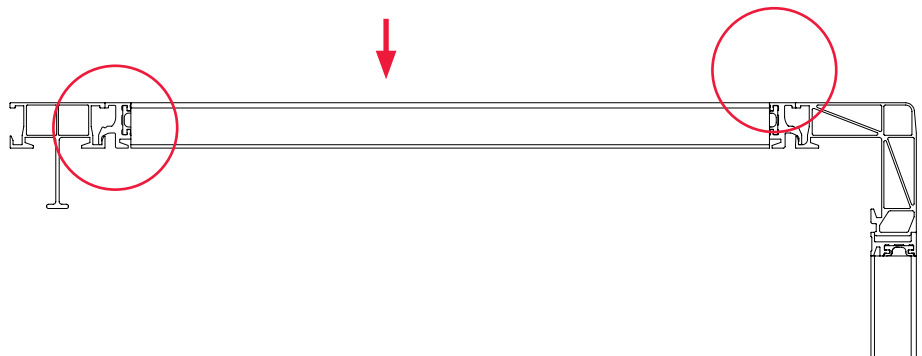
Swivel Slab Panel downwards.



Push in Slab Panel horizontally so that it is positioned centrally between the profiles.



Insert Slab Panel downwards into the profile slots. Secure Slab Panel by means of Slab Couplers, see plan.



B8 Slab

Connecting Slab Beam-Transition Panel



The Slab Coupler at the beam end must always be supported by a slab prop! Never directly support the bottom chord of the Slab Beam!



Connect Slab Beam to the Transition Panel with Slab Couplers.



Support with slab props.



The lug of the Slab Coupler engages the opening of the slab prop and secures this against tipping over.

B8 Slab

Further forming of slabs

Slab Beams and Slab Panels are installed alternatively.



Mount Slab Beam.



Mount slab prop with drop head in the Slab Beam from below and swivel upwards.



Position slab prop in a vertical position and carry out any necessary height adjustments.



Mount Slab Panel and secure with Slab Couplers.

B8 Slab

Further forming of slabs

Slab Beams and Slab Panels are installed alternatively.



After shuttering the wall and slab, hammer in the wedges of the Slab Couplers using a rubber or plastic hammer.



B9 Aligning

L-Profile
for flush Wall Panels.



Insert the L-Profile (80x80x6) in the previously mounted Alignment Couplers, see B4.



Move Alignment Couplers onto the bottom edge of the L-Profile.
The Wall Panels are now aligned.

B9 Aligning:

Spacer Spindles

As an assembly aid to ensure that the opening dimensions are correct. They stabilize free wall ends in the openings.



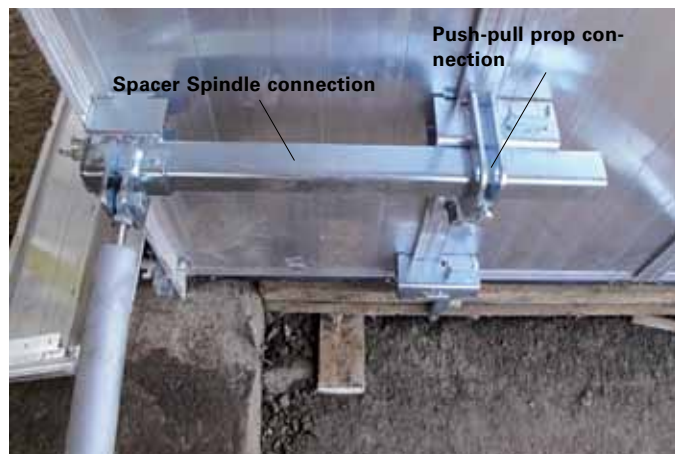
Parallel wall sections



The Spacer Spindle connection is firmly connected to the Stop End Waler.



Right-angled wall sections



Spacer Spindle connection for right-angled wall sections

C1 Striking of the Stop End Profile

Stop End Profile



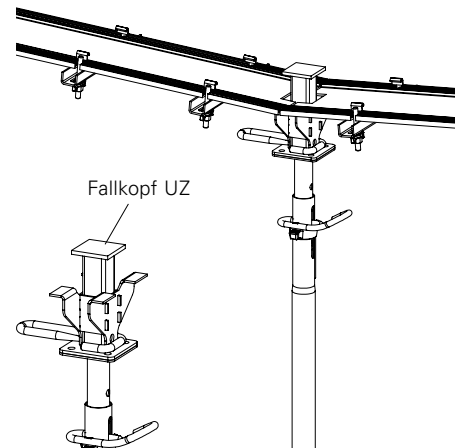
Remove all Stop End Profiles.



Dismantle the Stop End Profiles - remove from concrete from bottom to top.



Dismantle the Stop End Profiles on the beam - quickly remove slab props. Static proof provided by contractor.



As an alternative for use with Drop Head: lower Drophead UZ, remove Stop End Waler and dismantle Stop End Profiles.



Recommendation: to ensure faster re-use, bundle together Stop End Profiles of the individual openings.

C2 Striking of the Wall Panels

External Wall Panels



Remove External Panels on the openings.



Remove ties.



Loosen ties with a quarter turn and push locking slide upwards.

Remove Wall Couplers. When opening the last Wall Coupler, ensure that the panel is held firmly in position.

Remove panel and clean.



C2 Striking of the Wall Panels

Internal Wall Panels



Remove concrete residue as soon as possible from in front of the wall formwork - this makes striking easier. Begin with striking of the wall areas.



Remove concrete residue.



If necessary, remove slab props from the Slab Beam-Transition Panel transition area.



Remove Anchor Sleeve - push up locking slide and dismantle by twisting to one side.



Remove Spacer Couplers. Hammer wedge to the left.

Tip the Spacer Coupler upwards and remove.



C2 Ausschalen Wandelemente

Internal Wall Panel



Attach Striking Tool W/S with the claw in the Edge Profile.



Push Striking Tool W/S upwards or downwards until the panel is released from the concrete.



Dismantle the panels - remove from concrete from bottom to top.



Remove panel and clean.

C2 Striking of the Wall Panels

Corner Panels



Release Corner Panels from adjacent panels.



Striking with Striking Tool W/S.



Attach Striking Tool W/S with the claw in the Edge Profile.



Push Striking Tool W/S upwards or downwards until the panel is released from the concrete.



Alternating use on both sides of the panel.

C3 Striking of Slab Panels

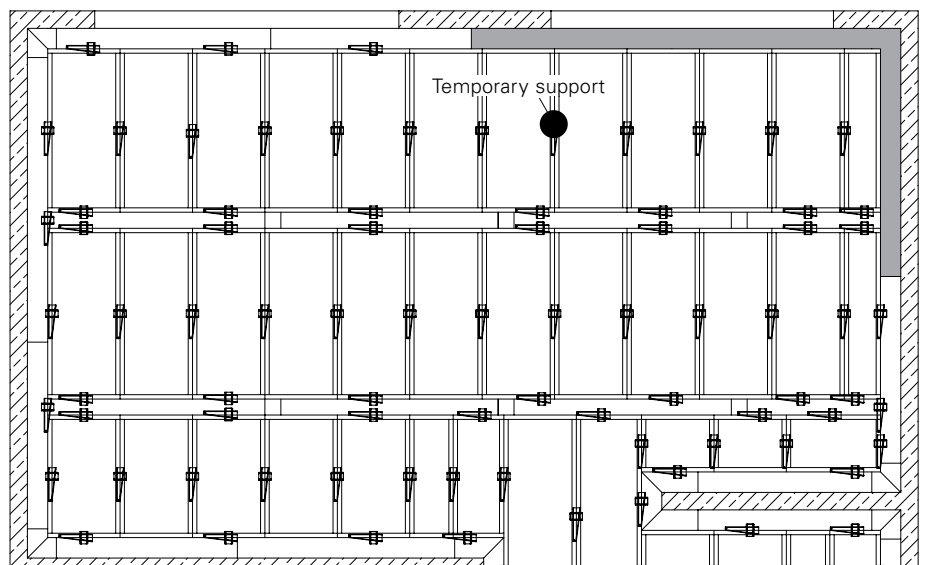
Sequence of operations



Striking of the Transition and Slab Panels as well as the Slab Beams is to be carried out one after the other and in an alternating sequence, see Layouts. Drop Heads are to be continuously lowered during striking operations. For securing the Slab Panels, slab props are to be installed as temporary support.

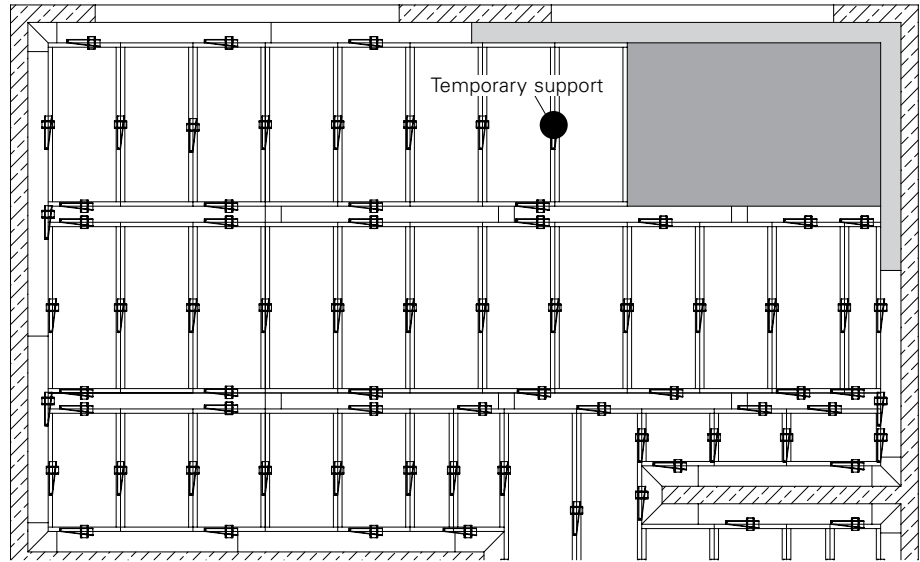


- Temporary support
- Lowered Drop Head
- ▬ Struck area
- ▬ Area to be struck

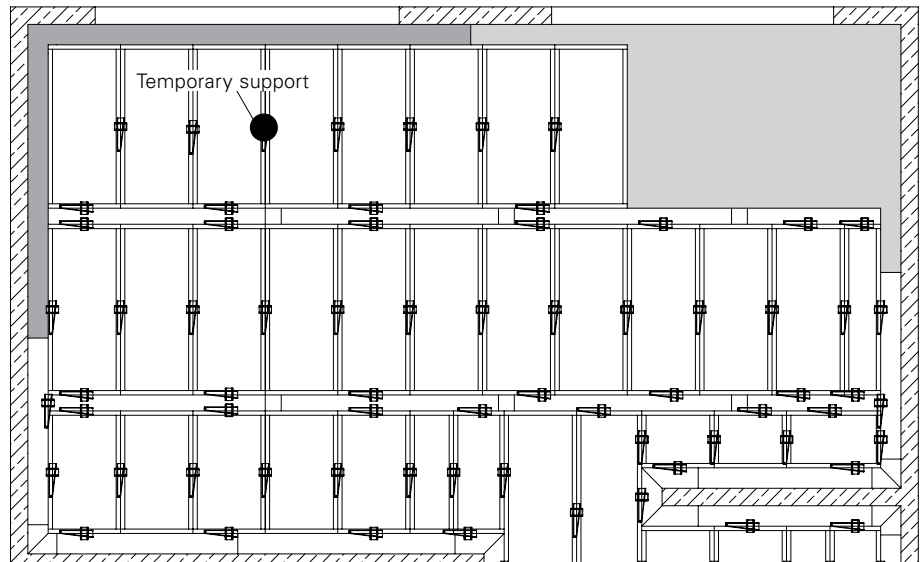


Position temporary supports and remove Transition Panels.

C3 Striking of Slab Panels

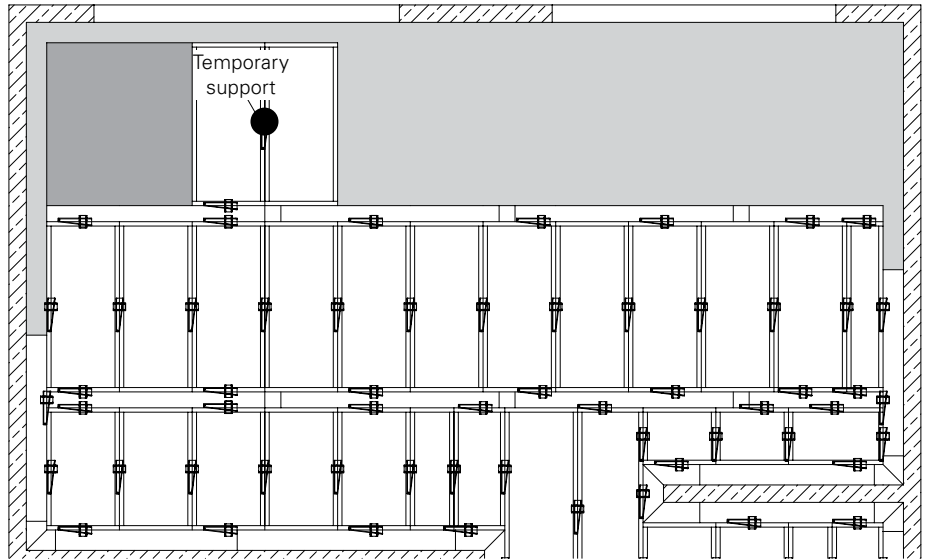


Striking of Slab Panels

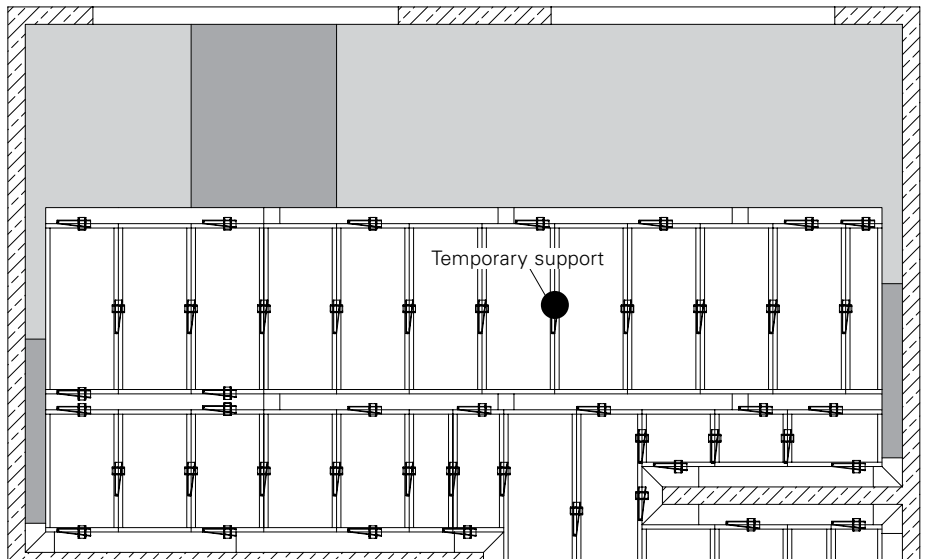


Re-position temporary support and remove Transition Panels.

C3 Striking of Slab Panels

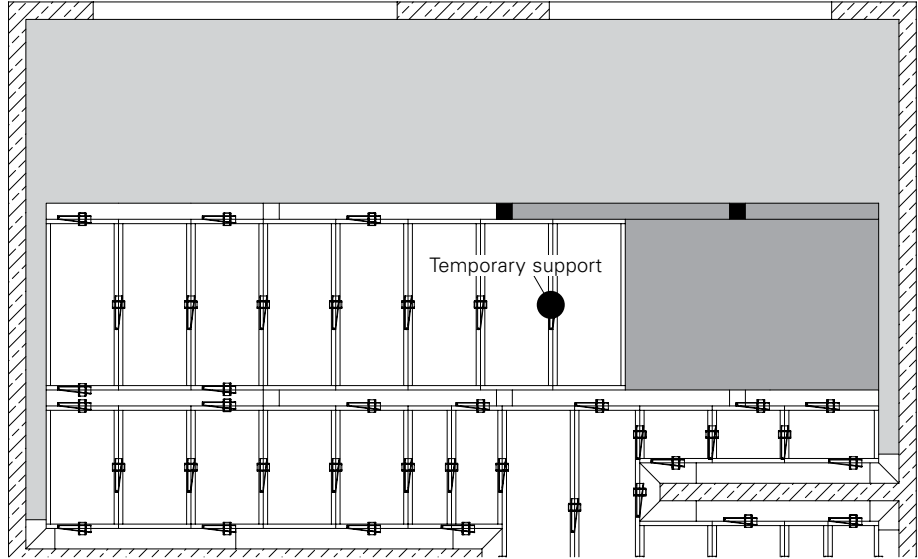


Striking of Slab Panels

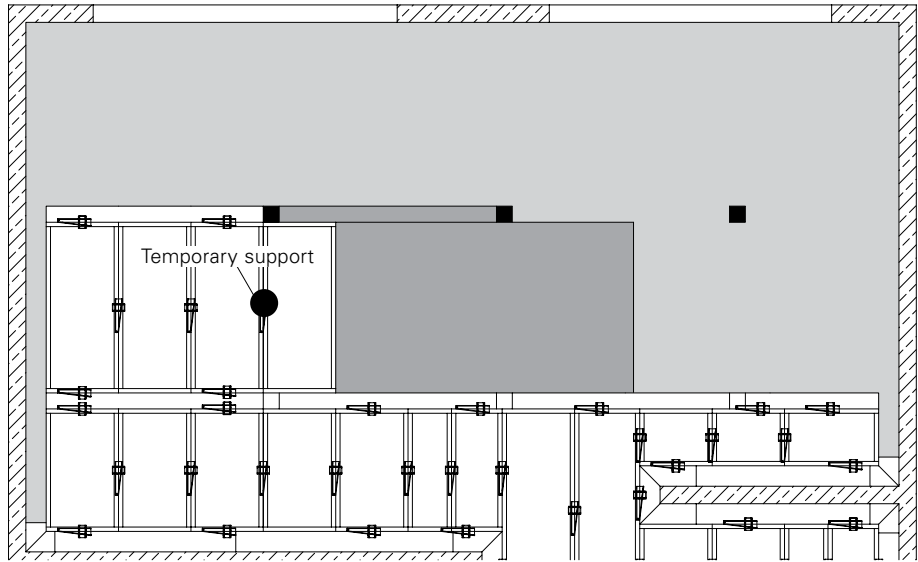


Re-position temporary support, strike Slab Panels, remove Transition Panels.
The last Slab Panels are to be secured by hand before the temporary support is removed, see Page 60.

C3 Striking of Slab Panels



Lower Drop Heads, remove Slab Beams and strike Slab Panels.



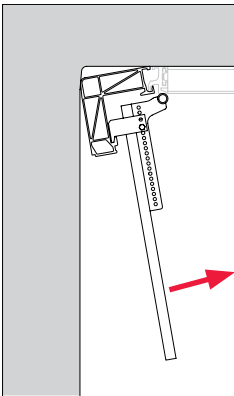
Re-position temporary supports, lower Drop Heads, remove Slab Beams and strike Slab Panels.

C3 Striking of Slab Panels

First Slab Area Strike Transition Panel



Release Transition Panel from the concrete at both ends.



Position the temporary support before striking takes place. One temporary support per 5 Slab Panels, left and right.



Release Transition Panel from the concrete by means of Striking Tool TR.



Turn bottom longitudinal side away from the concrete.



Remove Transition Panel.



Release Transition Corner from the concrete.



Pull out Transition Corner from below.

C3 Striking of Slab Panels

First Slab Area Striking the Slab Panels



Secure the free end of the Slab Panel with one hand. Remove Slab Coupler on adjacent panel.



Slab Panel is folded downwards.



Remove Slab Panel.



Re-position temporary support.



Strike further Slab Panels.



Strike further Transition Panels.

C3 Striking of Slab Panels

First Slab Area Strike final Slab Panel



Support the final Slab Panel by hand.
Remove temporary supports.



Remove final Slab Panel in the row.



Striking of the slab area is now complete.

C3 Striking of Slab Panels

Additional Slab Areas



Lower Drop Head.



Remove Slab Beam.



Strike Slab Panel.



Push Slab Panel sideways in the area of the Drop Head and then fold downwards.



C3 Striking of Slab Panels

Final Slab Area



Remove final Transition Panel.



Position temporary support.

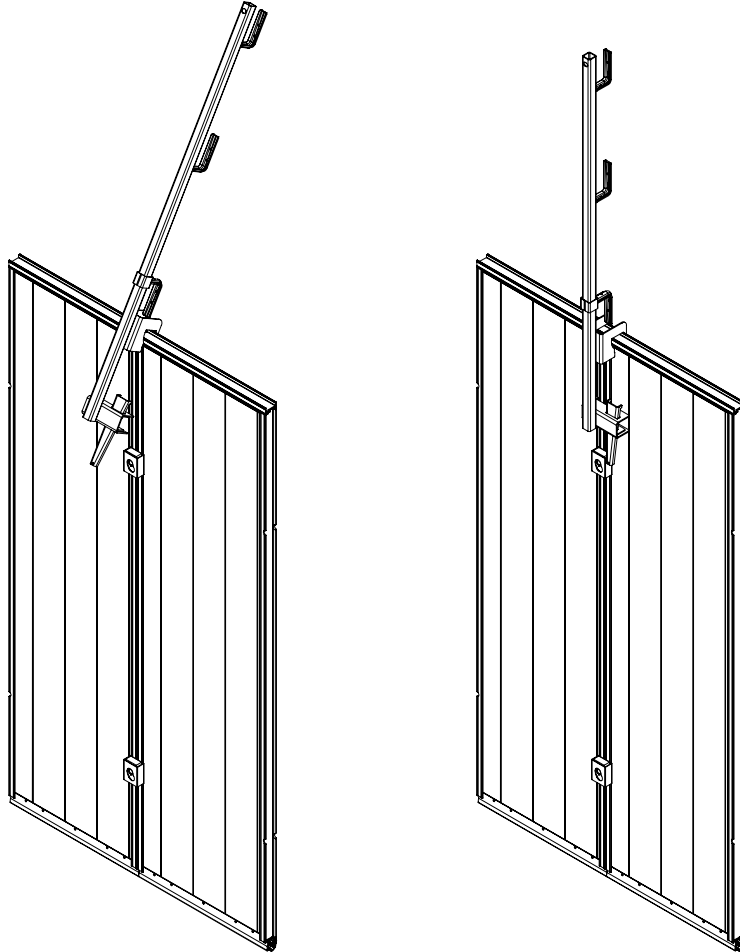


Striking of the room is now completed.

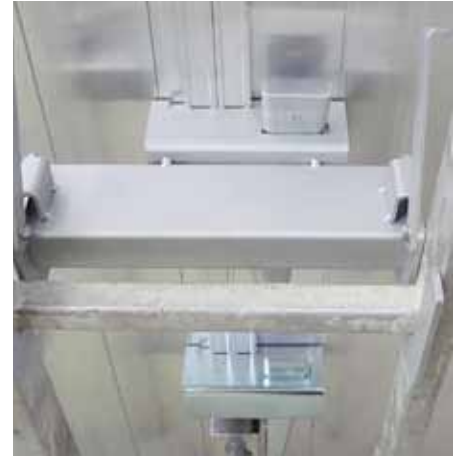
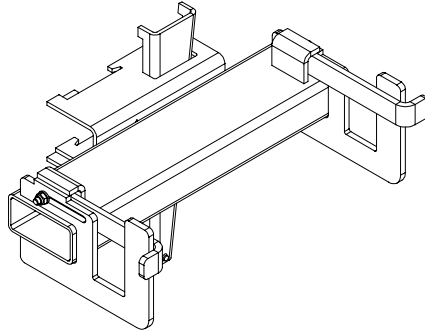
D1 Handrail Post UNO

Assembly

1. Place Handrail Post on the panel at an angle and then pivot vertically.
2. Open wedge and mount holder in panel.
3. Secure Handrail Post with the wedge.



D2 Ladder Connector UNO



Fix the Ladder Connector to the wall formwork in the same way as a wall coupler.



Maximum rung cross-section:
39 x 47 mm.



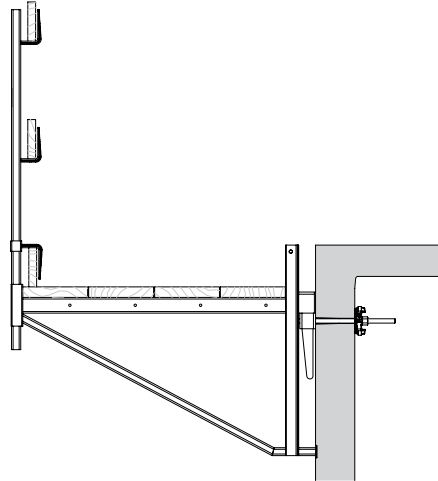
Push back the locking mechanism.
The ladder is now secured against
being detached unintentionally.



D3 Climbing Scaffold

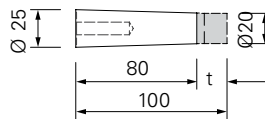
Mounting of brackets for erecting a working scaffold.

1. Form a channel in the wall with positioning cones.
2. Fixing mounting anchors.
3. Attach individual brackets to the mounting anchors.
4. Install decking and guardrails and secure with nails.

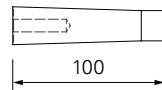


Positioning Cone UNO

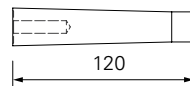
Individual Positioning Cones can be adapted to suit the wall thickness: the plastic area t is cut-to-size. (Fig. D3.01)



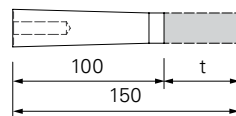
Positioning Cone UNO 100,
Item no. 124568
 $t = 80$ or 90 mm



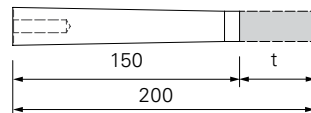
Positioning Cone UNO 100,
Item no. 124568
 $t = 100$ mm



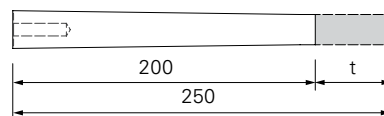
Positioning Cone UNO 120,
Item no. 124569
 $t = 120$ mm



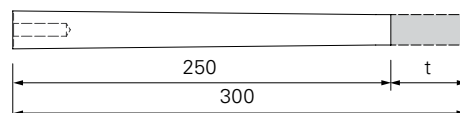
Positioning Cone UNO 100-150,
Item no. 124570
 $t = 100-150$ mm



Positioning Cone UNO 150-200,
Item no. 124571
 $t = 150-200$ mm



Positioning Cone UNO 200-250,
Item no. 124572
 $t = 200-250$ mm



Positioning Cone UNO 250-300,
Item no. 124573
 $t = 250-300$ mm

Fig. D3.01

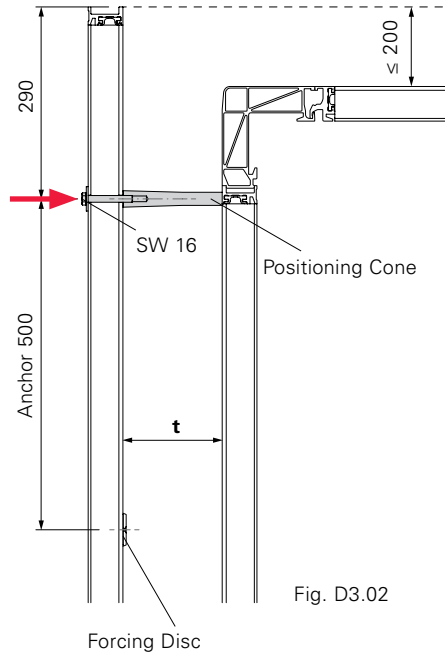
D3 Climbing Scaffold

Installation

1. Drill $\varnothing 11$ hole in the wall panel, see Plan.
2. Fix Positioning Cone UNO to the formwork using Hex. Bolt M10 x 70 and Washer $\varnothing 20$. (Fig. D3.02)
3. Fix forcing disc 500 mm underneath the Positioning Cone to the formwork - on the inside of the formwork with blind rivets 4x12.

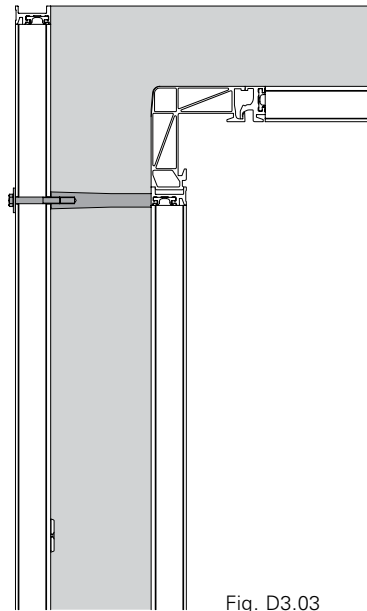


The recess in the concrete caused by the forcing disc prevents the bracket from turning.



Concreting

(Fig. D3.03)



D3 Climbing Scaffold

Striking

Unscrew Hex. Bolts M10 and remove formwork.
(Fig. D3.04)

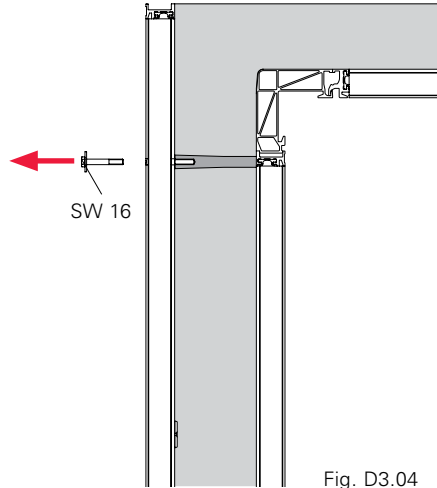


Fig. D3.04

Remove Positioning Cone UNO

Screw in Hex. Bolt M10 and pull out Positioning Cone.
(Fig. D3.05a + D3.05b)

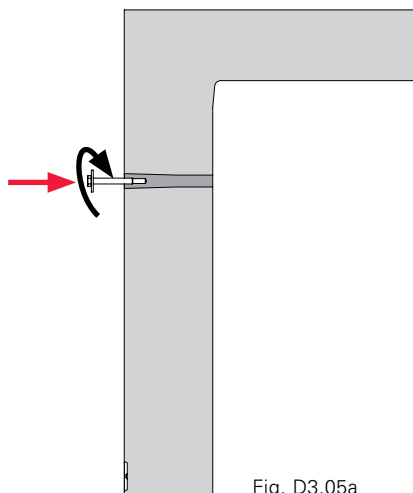


Fig. D3.05a

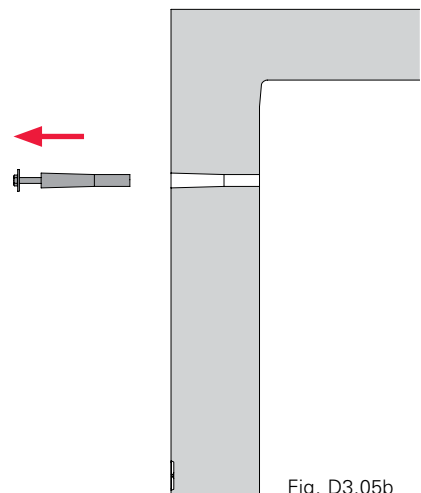


Fig. D3.05b

D3 Climbing Scaffold

Mounting Tie UNO

The bracket is attached to the Mounting Tie.

Installation

Push the Mounting Tie through the opening of the Positioning Cone and secure on the inside of the wall with wingnut counterplates.

Alternatively with Counterplate DW 15 and

- Wingnut DW 15
- Triple Wingnut DW 15
- Cam Nut DW 15
- Hex. Nut DW 15

(Fig. D3.06a, D3.06b, D3.06c)

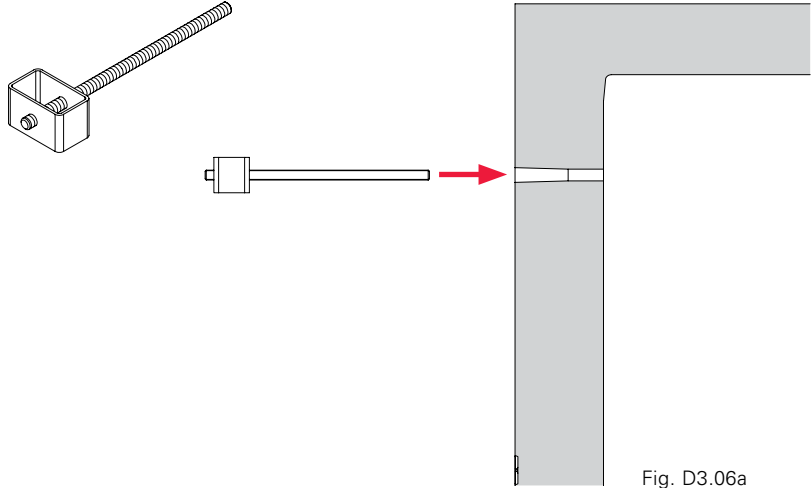


Fig. D3.06a

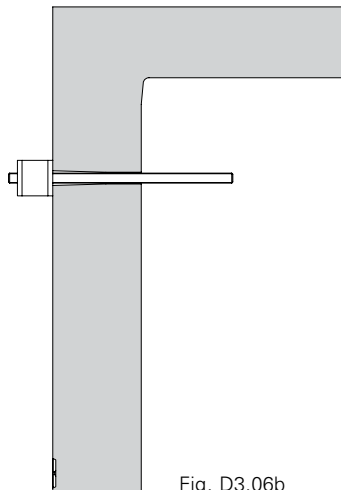


Fig. D3.06b

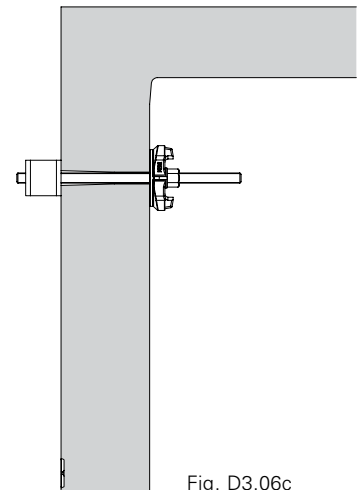


Fig. D3.06c

D3 Climbing Scaffold

Brackets

With the brackets, a working and concreting scaffold is installed.

Max. width of influence per bracket: 1.50 m

Perm. loading capacity: 200 kg/m²

Mounting brackets

Attach bracket with the mounting hooks in the Mounting Tie.

(Fig. D3.07a + D3.07b)

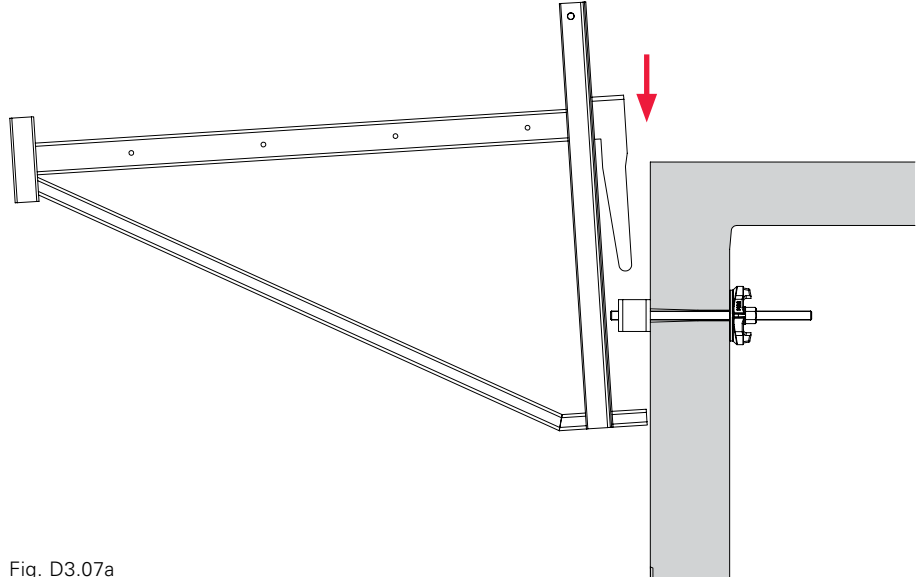


Fig. D3.07a

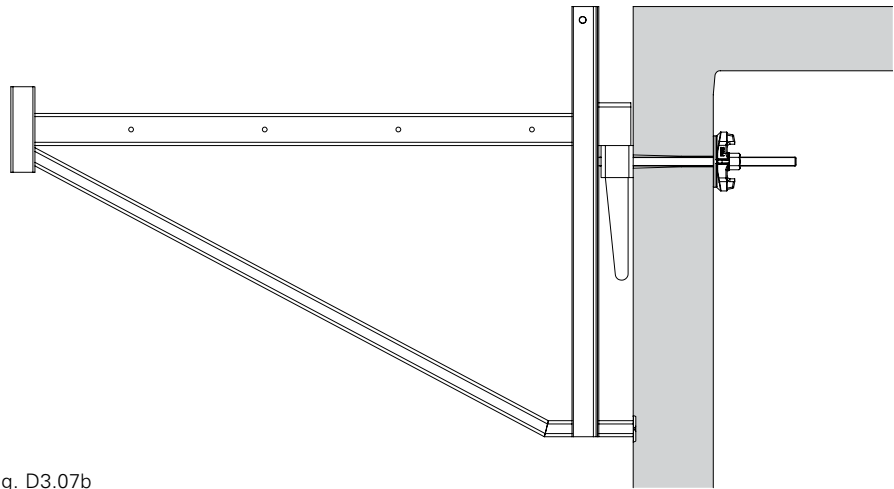


Fig. D3.07b

Climbing Bracket 1.00 B UNO

for planking, Item no. 124566, nail strip supplied by contractor which is fixed horizontally to the horizontal waler with Bolts M8.

(Fig. D3.08a)

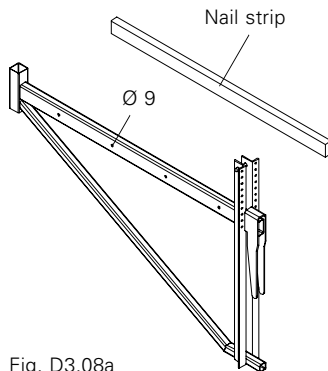


Fig. D3.08a

Climbing Bracket 1.00 S UNO

for Steel Grating Deck, Item no. 124353

(Fig. D3.08b)

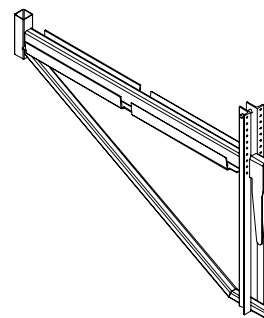


Fig. D3.08b

D3 Climbing Scaffold

Decking and Guardrails

1. Insert Guardrail Post HSGP.
2. Position planking on the brackets and secure with nails.
3. Attach handrail boards and secure. (Fig. D3.09a + D3.09b)

The external panels are positioned on support timbers.

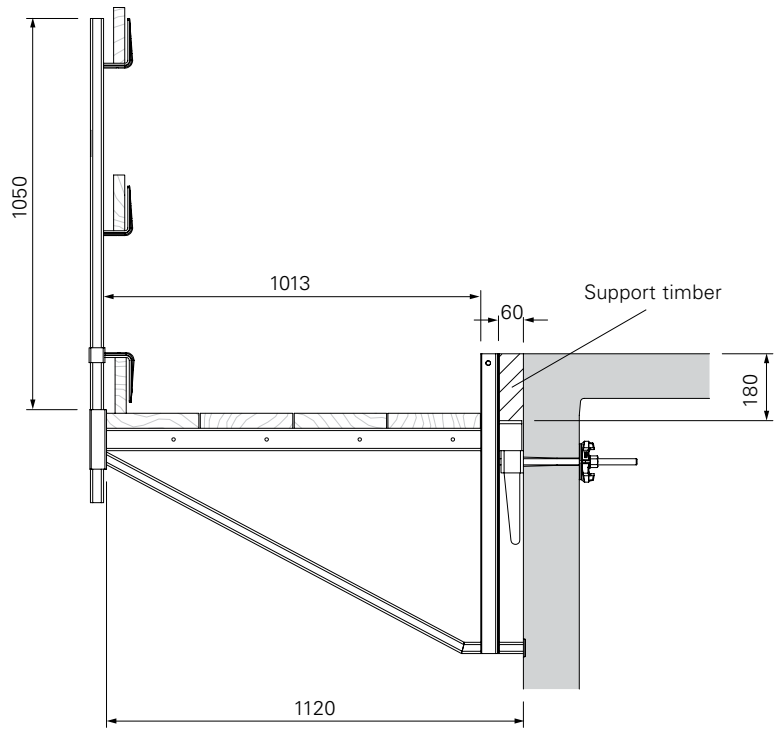


Fig. D3.09a

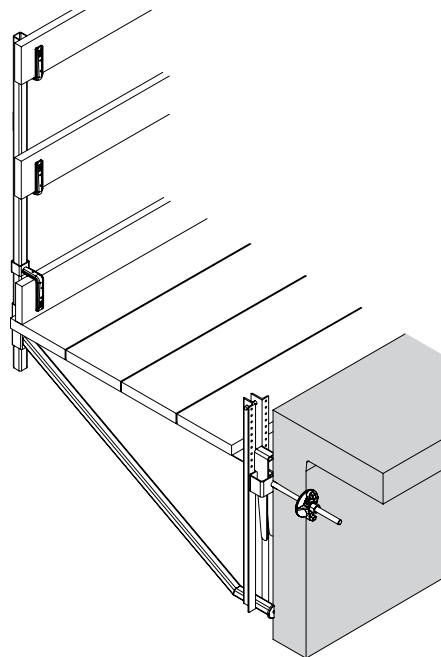


Fig. D3.09b

D3 Climbing Scaffold

External corner

For bridging the external corner with planking, the Corner Adapter UNO is mounted.



Safe transfer of bracket loads into the wall must be proven and guaranteed by the user!

Corner Adapter UNO

From above, move Corner Adapter along the structure, then lower and attach to both brackets.
(Fig. D3.10a + D3.10b)

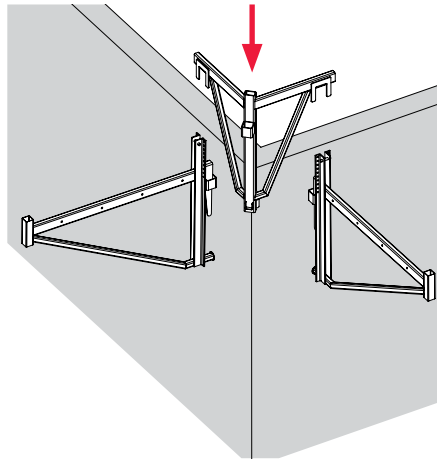


Fig. D3.10a

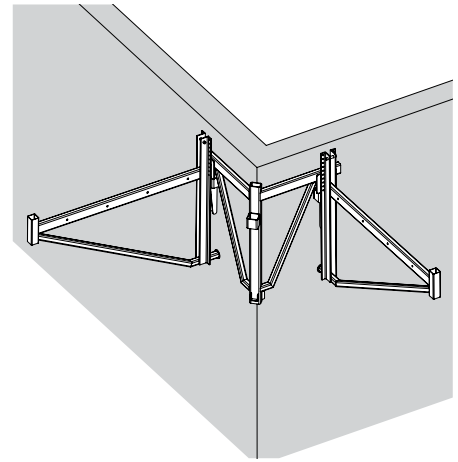


Fig. D3.10b

Corner Bracket UNO

1. Attach Corner Bracket to the holder of the Corner Adapter.
(Fig. D3.11a + D3.11b)

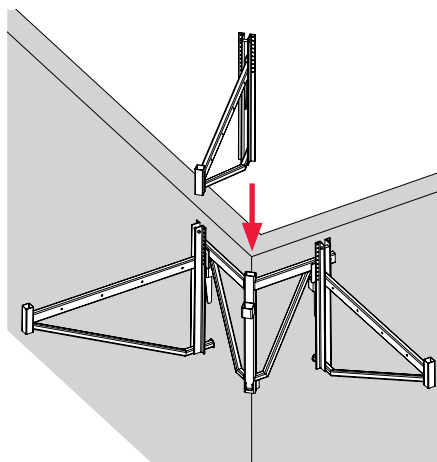


Fig. D3.11a

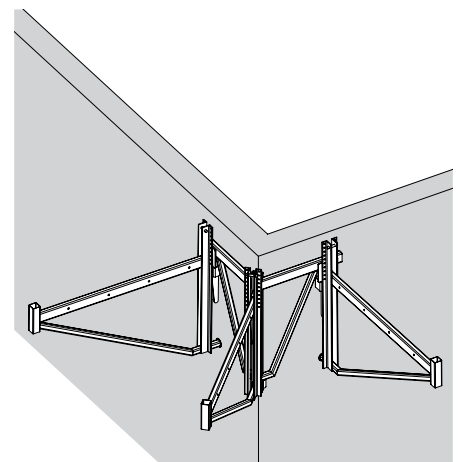


Fig. D3.11b

D3 Climbing Scaffold

External corner

1. Position planking on the brackets and secure with nails.
 2. Insert Guardrail Post HSGP.
 3. Attach handrail boards and secure with nails.
- (Fig. D3.12)

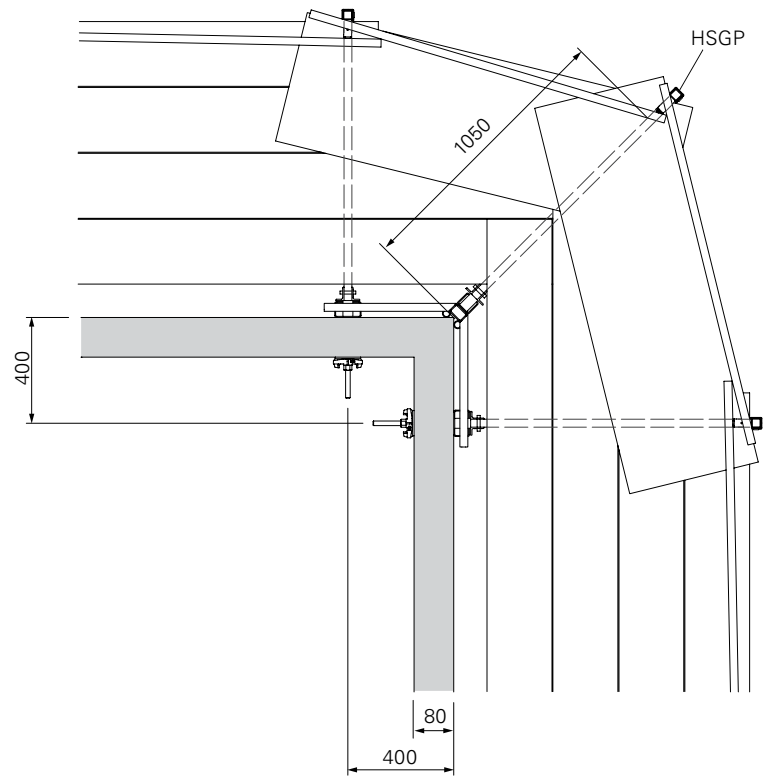


Fig. D3.12

Internal corner

Assembly

1. Position planking on the brackets and secure with nails.
 2. Insert Guardrail Post HSGP.
 3. Attach handrail boards and secure with nails.
- (Fig. D3.13)

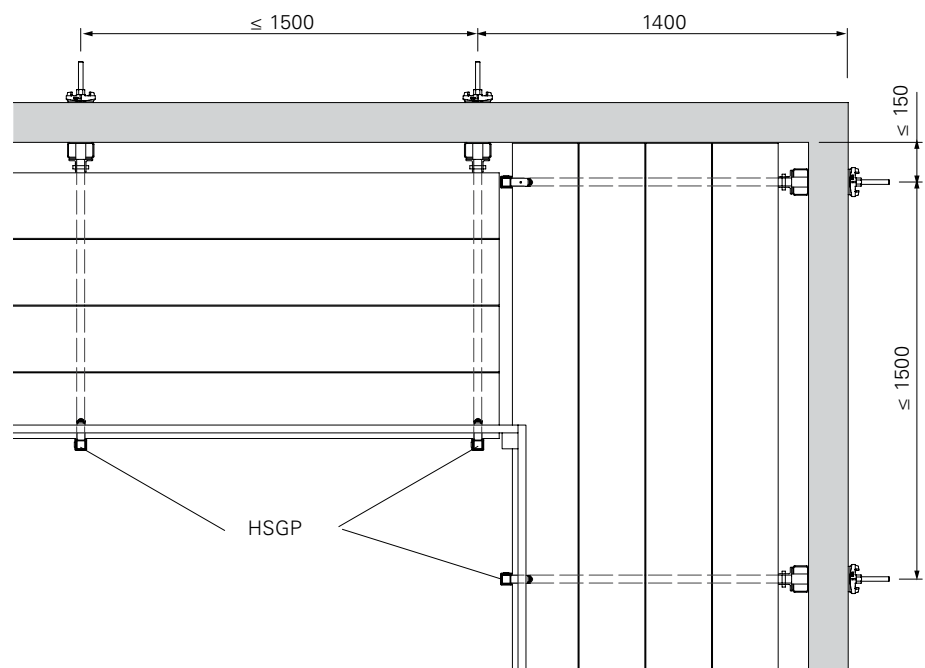


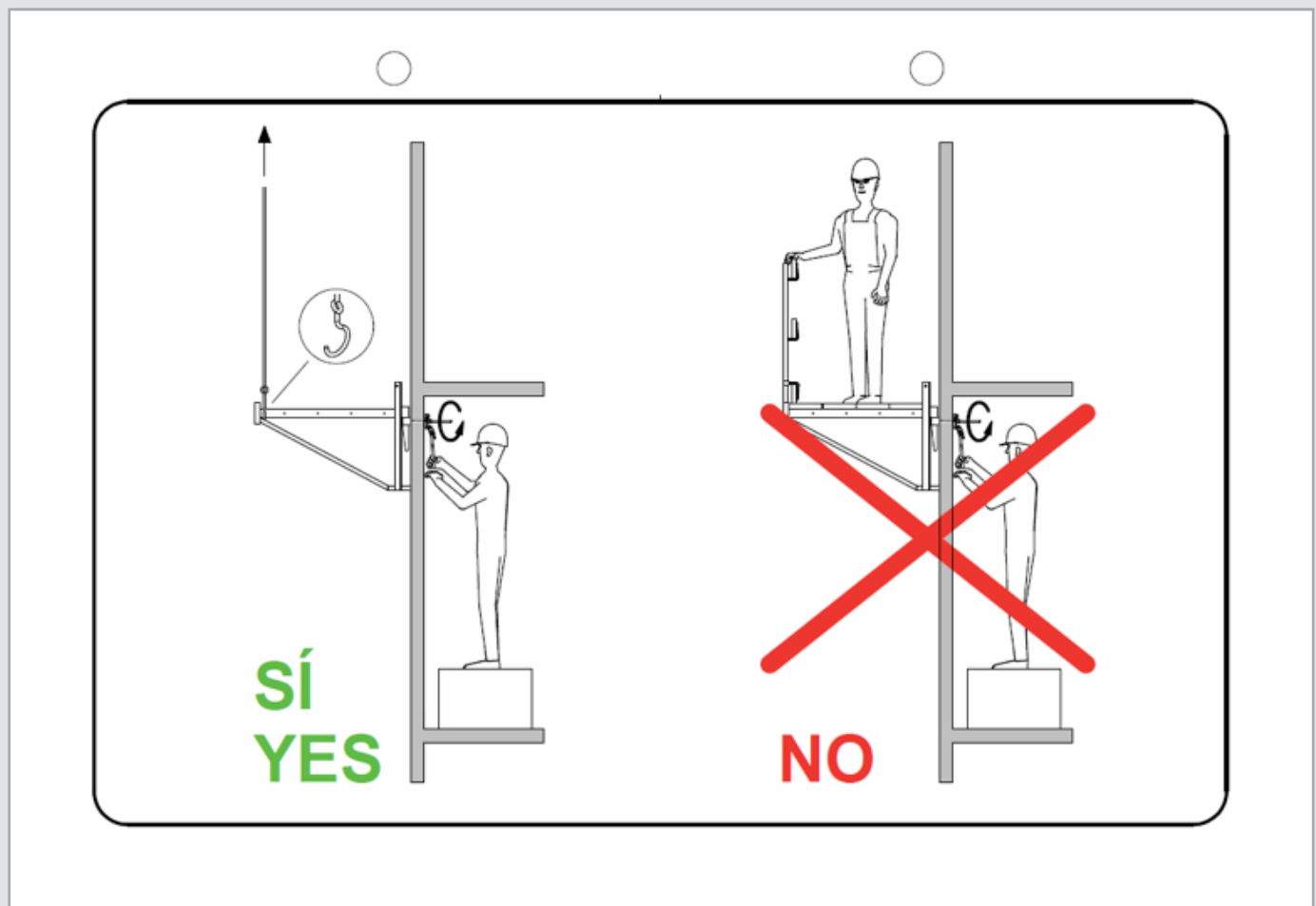
Fig. D3.13

D3 Climbing Scaffold

Safety Instruction



In order to prevent loosening of the mounting tie nut while individuals are standing on the working platform the following sign has to be fixed at each mounting tie on the internal side of the wall.



E1 Handling Components

Components

In order to maintain the value and operational readiness of the UNO Housing Formwork over a long period of time, the formwork should be carefully handled at all times. If the following recommendations are complied with, it will be possible to use the UNO formwork several

hundred times.



Always carry the panels!



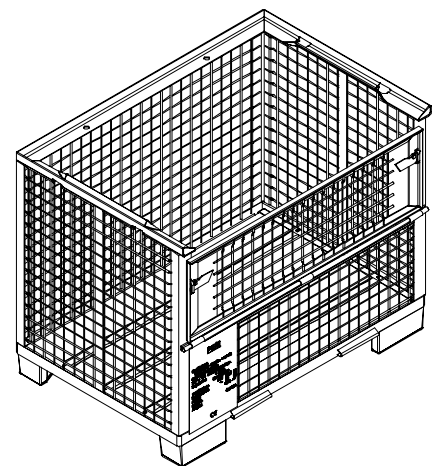
Never drag the panels across the floor!



Never throw down or drop the panels!



Store the panels vertically in pallets!
Store accessories in pallet cages.



When loading onto trucks, all valid regulations are to be observed. Be careful not to damage the panels when securing.

E1 Handling Components



Put down panels carefully!



Only use panels for shuttering purposes!



Formwork couplers and ties are not to be used as climbing aids!

E2 Maintenance and Cleaning



Clean panels with water immediately after concreting, e.g. high-pressure hose.



Apply release agent before positioning the panels, also on the front sides.



Clean the panels immediately after striking, e.g. with a spatula.



or with a scraper.



Clean the edges, e.g. with a spatula.

E2 Maintenance and Cleaning



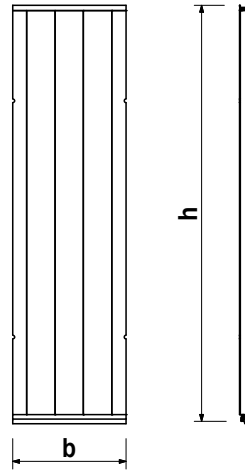
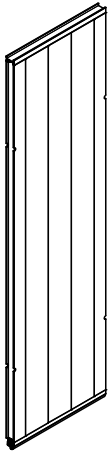
Clean panels after every use, eg. with rotating brushes.

Item no. Weight kg

Wall Panel UNO

Note

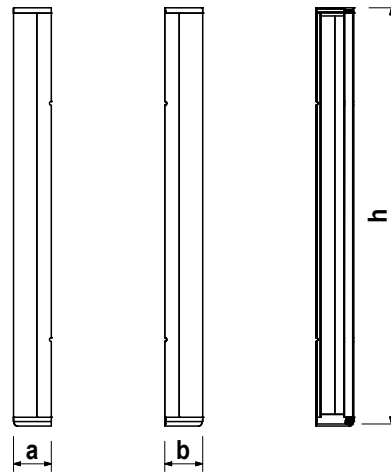
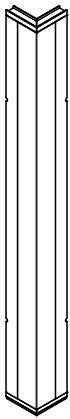
h = variable
b = 120 - 600 m



Internal Corner UNO

Note

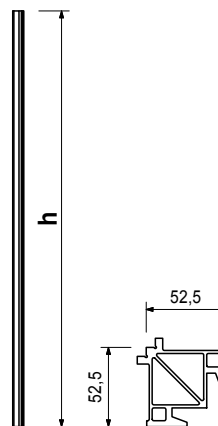
h = variable
a, b = 100 x 100 - 400 x 400



External Corner Profile UNO

Note

h = variable

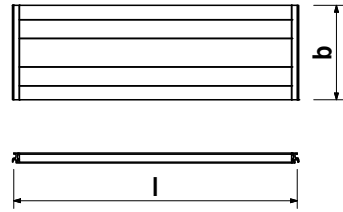
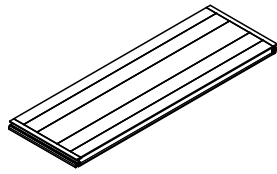


Item no. Weight kg

Slab Panel UNO

Note

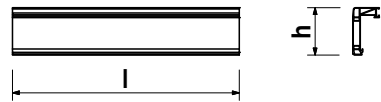
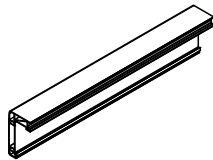
l = variable
b = 120 - 600 mm



Transition Panel UNO

Note

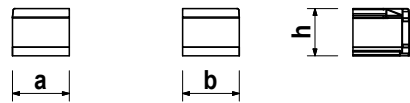
l = variable
h = 115 - 300 mm



Transition Corner UNO

Note

h = 115 - 300
a, b = 100 x 100 - 1500 x 1500



Stopend Profile UNO

Stopend Profile UNO 100 - 180
Stopend Profile UNO 140 - 220
Stopend Profile UNO 220 - 300

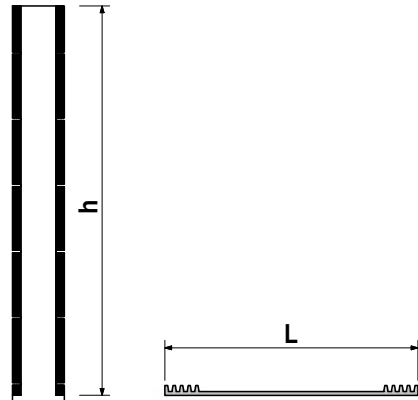
For openings and beams.

L

295
335
415

Note

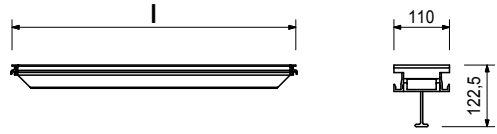
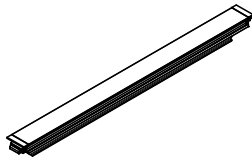
h = variable



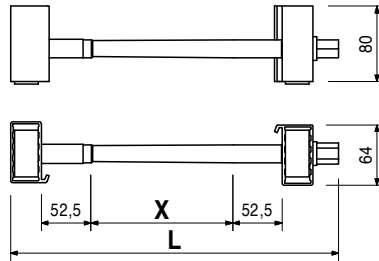
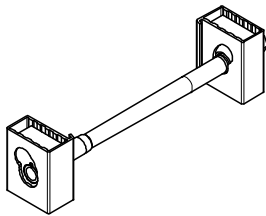
Item no. Weight kg

Slab Girder UNO

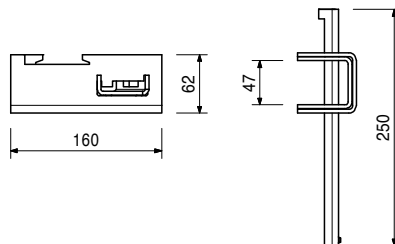
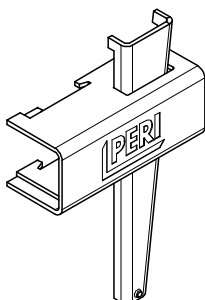
Note
l = variable



		Tie Rods UNO		L	X
117882	2,520	Tie Rod UNO 10		298	100
117883	2,540	Tie Rod UNO 11		308	110
117884	2,560	Tie Rod UNO 12		318	120
117885	2,580	Tie Rod UNO 13		328	130
117886	2,600	Tie Rod UNO 14		338	140
117887	2,620	Tie Rod UNO 15		348	150
117888	2,640	Tie Rod UNO 16		358	160
117889	2,660	Tie Rod UNO 17		368	170
117890	2,680	Tie Rod UNO 18		378	180
117891	2,700	Tie Rod UNO 19		388	190
117055	2,720	Tie Rod UNO 20		398	200
117893	2,740	Tie Rod UNO 21		408	210
117894	2,760	Tie Rod UNO 22		418	220
117895	2,780	Tie Rod UNO 23		428	230
117896	2,800	Tie Rod UNO 24		438	240
117897	2,820	Tie Rod UNO 25		448	250
117898	2,840	Tie Rod UNO 26		458	260
117899	2,860	Tie Rod UNO 27		468	270
117900	2,880	Tie Rod UNO 28		478	280
117901	2,900	Tie Rod UNO 29		488	290
117902	2,920	Tie Rod UNO 30		498	300



117908 1,800 **Wall Coupler UNO**

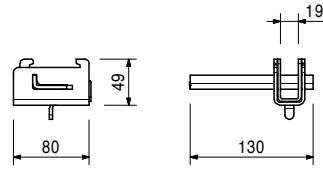
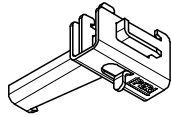


UNO Monolithic Housing Formwork



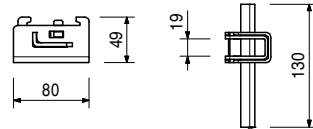
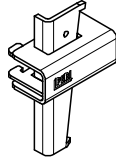
Item no.	Weight kg
124000	0,460

Slab Coupler UNO



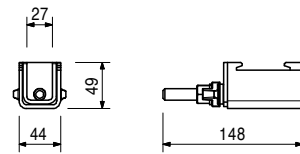
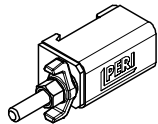
123718	0,500
--------	-------

Spacer Coupler UNO



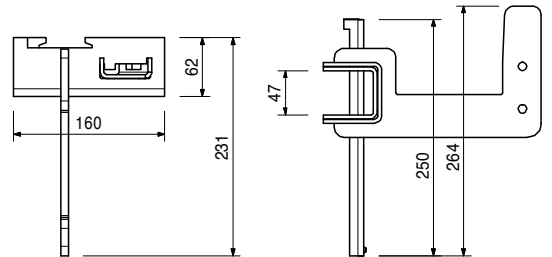
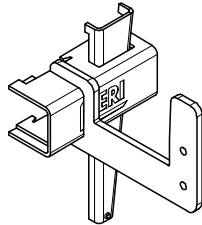
124014	0,610
--------	-------

Screw Coupler UNO



123945	2,650
--------	-------

Alignment Coupler 80 UNO

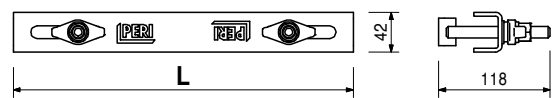
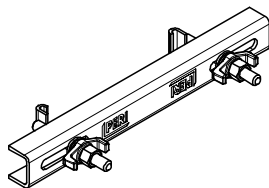


117905	1,390
117906	1,510
118752	1,730

Stop End Waler

Stop End Waler 100 - 180
Stop End Waler 140 - 220
Stop End Waler 220 - 300

L
360
400
480



UNO Monolithic Housing Formwork

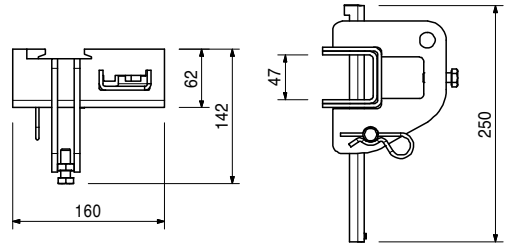
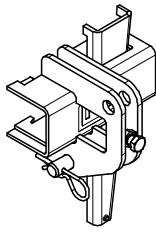


Item no. Weight kg

123559

2,830

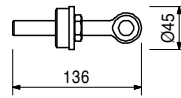
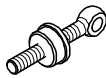
Brace Connector UNO



123562

0,450

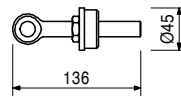
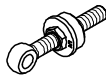
Spindle Unit UNO right



123565

0,450

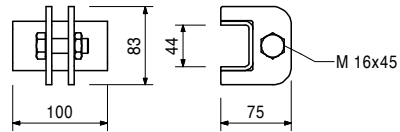
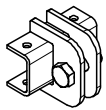
Spindle Unit UNO left



123570

0,820

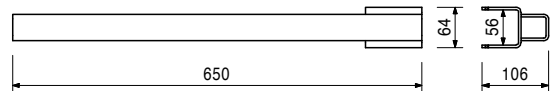
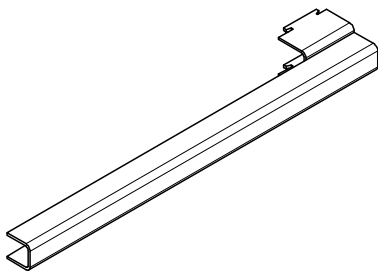
Spacer Connector UNO



123574

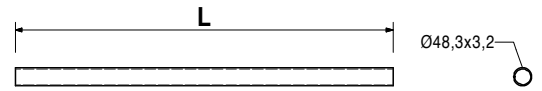
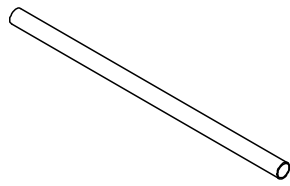
2,850

Waler Spacer Connector UNO 650

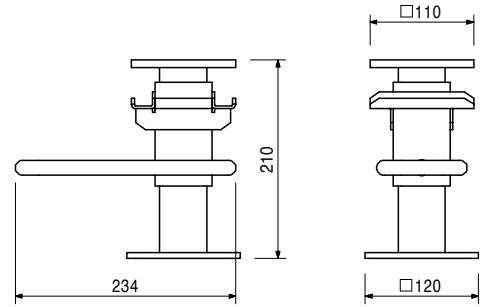
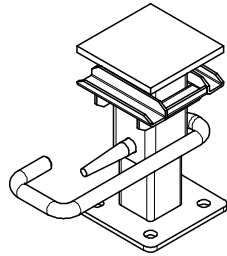


UNO Monolithic Housing Formwork

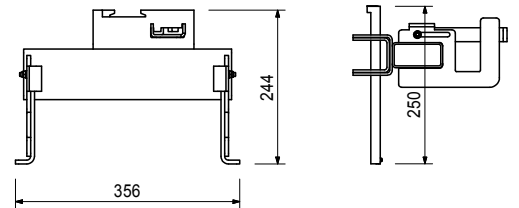
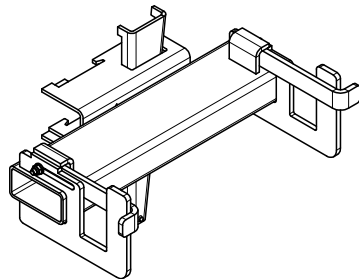
Item no.	Weight kg	
026415	3,550	Scaff. Tube Steel Ø 48.3 x 3.2, per m



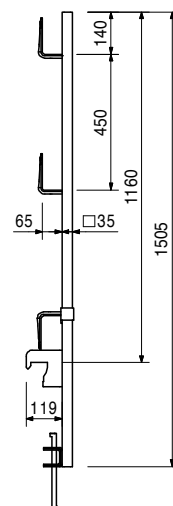
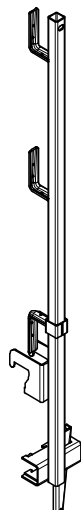
118071	4,100	Drop Head UNO
--------	-------	---------------



124068	4,360	Ladder Connector UNO
--------	-------	----------------------



123688	7,770	Handrail Post UNO
--------	-------	-------------------

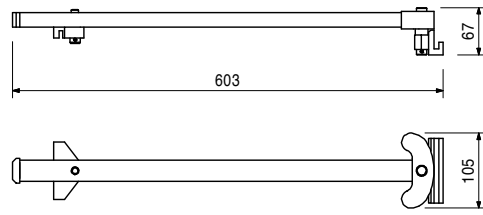
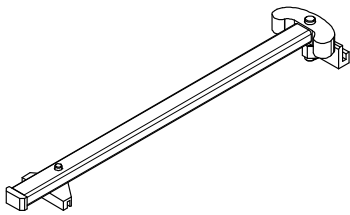


UNO Monolithic Housing Formwork



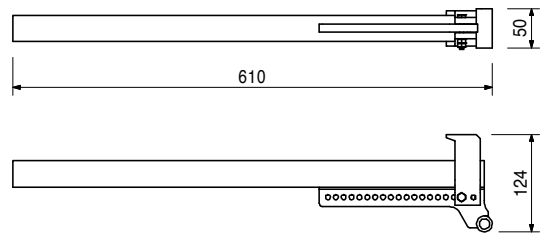
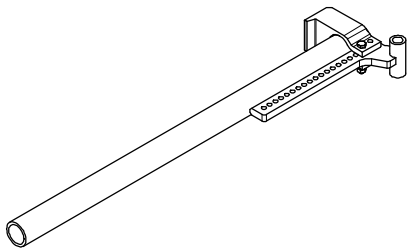
Item no.	Weight kg
124187	1,990

Striking Tool W/S UNO
To strike wall and slab panels.



117925	1,460
--------	-------

Striking Tool TR UNO
To strike transition panels.



115555	0,006
--------	-------

Label for UNO





01 PERI GmbH
Rudolf-Diesel-Strasse
89264 Weissenhorn
info@peri.com
www.peri.com



02 France
PERI S.A.S.
77109 Meaux Cedex
peri.sas@peri.fr
www.peri.fr

03 Switzerland
PERI AG
8472 Ohringen
info@peri.ch
www.peri.ch

04 Spain
PERI S.A.
28110 Algete - Madrid
info@peri.es
www.peri.es

05 Belgium/Luxembourg
N.V. PERI S.A.
1840 Londerzeel
info@peri.be
www.peri.be

06 Netherlands
PERI B.V.
5480 AH-Schijndel
info@peri.nl
www.peri.nl

07 USA
PERI Formwork Systems, Inc.
Elkridge, MD 21075
info@peri-usa.com
www.peri-usa.com

08 Indonesia
PT Beton Perkasa Wijaksana
Jakarta 10210
bpw@betonperkasa.com
www.peri.com

09 Italy
PERI S.p.A.
20060 Basiano
info@peri.it
www.peri.it

10 Japan
PERI Japan K.K.
Tokyo 103-0015
info@perijapan.jp
www.perijapan.jp

11 United Kingdom/Ireland
PERI Ltd.
Rugby, CV23 0AN
info@peri.ltd.uk
www.peri.ltd.uk

12 Turkey
PERI Kalıp ve İskeleleri
Esenyurt / İstanbul 34510
info@peri.com.tr
www.peri.com.tr

13 Hungary
PERI Kft.
1181 Budapest
info@peri.hu
www.peri.hu

14 Malaysia
PERI Formwork Malaysia
Sdn. Bhd.
43300 Seri Kembangan,
Selangor Darul Ehsan
info@perimalaysia.com
www.perimalaysia.com

15 Singapore
PERI ASIA Pte. Ltd
Singapore 387355
pha@periasia.com
www.periasia.com

16 Austria
PERI Ges.mbh
3134 Nußdorf ob der Traisen
office@peri.at
www.peri.at

17 Czech Republic
PERI spol. s r.o.
252 42 Jesenice u Prahy
info@peri.cz
www.peri.cz

18 Denmark
PERI Danmark A/S
2670 Greve
peri@peri.dk
www.peri.dk

19 Finland
PERI Suomi Ltd. Oy
05460 Hyvinkää
info@perisuomi.fi
www.perisuomi.fi

20 Norway
PERI Norge AS
3036 Drammen
info@peri.no
www.peri.no

21 Poland
PERI Polska Sp. z o.o.
05-860 Płochocin
info@peri.pl.pl
www.peri.pl.pl

22 Sweden
PERIform Sverige AB
30013 Halmstad
peri@periform.se
www.periform.se

23 Korea
PERI (Korea) Ltd.
Seoul 135-080
info@perikorea.com
www.perikorea.com

24 Portugal
PERIcofragens Lda
2790-326 Queijas
info@peri.pt
www.peri.pt

25 Argentina
PERI S.A.
B1625GPA Escobar – Bs. As.
info@peri.com.ar
www.peri.com.ar

26 Brazil
PERI Formas e
Escoramentos Ltda.
Vargem Grande Paulista
São Paulo
info@peribrasil.com.br
www.peribrasil.com.br

27 Chile
PERI Chile Ltda.
Colina, Santiago de Chile
peri.chile@peri.cl
www.peri.cl

28 Romania
PERI România SRL
077015 Balotești
info@peri.ro
www.peri.ro

29 Slovenia
PERI Slovenien
2000 Maribor
peri.slo@triera.net
www.peri.com

30 Slovakia
PERI spol. s r.o.
903 01 Senec
info@peri.sk
www.peri.sk

31 Australia
PERI Australia Pty. Ltd.
Glendenning NSW 2761
info@periaus.com.au
www.periaus.com.au

32 Estonia
PERI AS
76406 Saku vald
Harjumaa
peri@peri.ee
www.peri.ee

33 Greece
PERI Hellas Ltd.
194 00 Koropi
info@perihellas.gr
www.perihellas.gr

34 Latvia
PERI SIA
2118 Salaspils novads,
Rīgas rajons
info@peri-latvija.lv
www.peri-latvija.lv

35 United Arab Emirates
PERI (L.L.C.)
Dubai
perillc@perime.com
www.perime.com

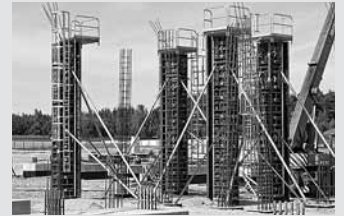


- 36 Canada**
PERI Formwork Systems, Inc.
Bolton, ON – L7E 1K1
info@peri.ca
www.peri.ca
- 37 Lebanon**
Lebanon Representative Office
Jdeideh
lebanon@peri.de
www.peri.de
- 38 Lithuania**
PERI UAB
02300 Vilnius
info@peri.lt
www.peri.lt
- 39 Morocco**
PERI S.A.
Tanger
peri25@menara.ma
www.peri.com
- 40 Israel**
PERI Formwork
Engineering Ltd
Petach Tikva, 49002
info@peri.co.il
www.peri.co.il
- 41 Bulgaria**
PERI Bulgaria EOOD
1839 Sofia
peri.bulgaria@peri.bg
www.peri.bg
- 42 Iceland**
Armar ehf.
220 Hafnarfjörður
www.armor.is
- 43 Kazakhstan**
TOO PERI Kazakhstan
050059 Almaty
peri@peri.kz
www.peri.kz
- 44 Russian Federation**
OOO PERI
142407, Noginsk District
moscow@peri.ru
www.peri.ru
- 45 South Africa**
PERI Formwork
Scaffolding (Pty) Ltd
7600 Stellenbosch
info@wiehahn.co.za
www.wiehahn.co.za
- 46 Ukraine**
TOW PERI Ukraina
07400 Brovary
peri@peri.ua
www.peri.ua
- 47 Egypt**
Egypt Branch Office
11361 Heliopolis / Cairo
info@peri.com.eg
www.peri.com.eg
- 48 Serbia**
PERI Oplate d.o.o.
11272 Dobanovci
office@peri.rs
www.peri.rs
- 49 Mexico**
PERI Cimbras y Andamios,
S.A. de C.V.
Estado de México,
info@peri.com.mx
www.peri.com.mx
- 50 Azerbaijan**
PERI Kalıp ve İskeleleri
Baku
peribaku@peri.com.tr
www.peri.com.tr
- 51 Turkmenistan**
PERI Kalıp ve İskeleleri
Aşgabat
ahmet.kadioglu@peri.com.tr
www.peri.com.tr
- 52 Belorussia**
PERI Belarus
220100 Minsk
info@peri.by
www.peri.by
- 53 Croatia**
PERI oplate i skele d.o.o.
10 250 Donji Stupnik/
Zagreb
info@peri.com.hr
www.peri.com.hr
- 54 Iran**
PERI GmbH
Iran Branch Office
Tehran
info@peri.ir
www.peri.ir
- 55 India**
PERI (India) Pvt Ltd
Mumbai – 400064
info@peri.in
www.peri.in
- 56 Jordan**
PERI GmbH - Jordan
11947 Amman
jordan@peri.com
www.peri.com
- 57 Kuwait**
PERI Kuwait
13011 Kuwait
kuwait@peri.com
www.peri.com
- 58 Saudi Arabia**
PERI Engineering
Division of Jamjoom
Consult Saudi Arabia
21463 Jeddah
info@peri.com.sa
www.peri.com.sa
- 59 Qatar**
PERI Qatar LLC
P.O.Box: 31295 - Doha
info@periqatar.com
www.periqatar.com
- 60 Algeria**
Société PERI S.A.S.
Kouba - Alger
peri.alger@peri.fr
www.peri.fr
- 61 Albania**
PERI Sh.p.k.
Tirane
erti.hasanaj@peri.com.tr
www.peri.com.tr
- 62 Peru**
PERI Peruana SAC
Villa El Salvador, Lima
contacto@peri.com.pe
www.peri.com.pe
- 63 Panama**
PERI Panama Inc.
0832-00155 Panama City
info@peri.com.pa
www.peri.com.pa
- 64 Angola**
PERIcofragens, Lda.
Luanda
renato.portugal@peri.pt
www.peri.pt
- 65 Nigeria**
Heights Access Nigeria Ltd.
Victoria Island, Lagos
info@heightsaccessng.com
www.heightsaccessng.com
- 66 Oman**
PERI (L.L.C.)
Muscat
perimct@perime.com
www.perime.com
- 67 Colombia**
PERI S.A.S. Colombia
Chapinero Alto, Bogotá
peri.colombia@peri.com.co
www.peri.com.co

The optimal System for every Project and every Requirements



Wall Formwork



Column Formwork



Slab Formwork



Climbing Systems



Tunnel Formwork



Bridge Formwork



Shoring Systems



Construction Scaffold



Facade Scaffold



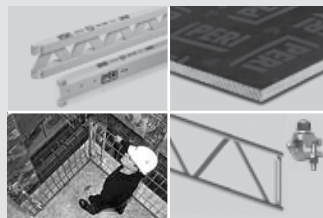
Industrial Scaffold



Access



Protection Scaffold



System-Independent Accessories



Services



PERI GmbH
Formwork Scaffolding Engineering
 P.O. Box 1264
 89259 Weissenhorn
 Germany
 Tel. +49 (0)7309.950-0
 Fax +49 (0)7309.951-0
 info@peri.com
 www.peri.com