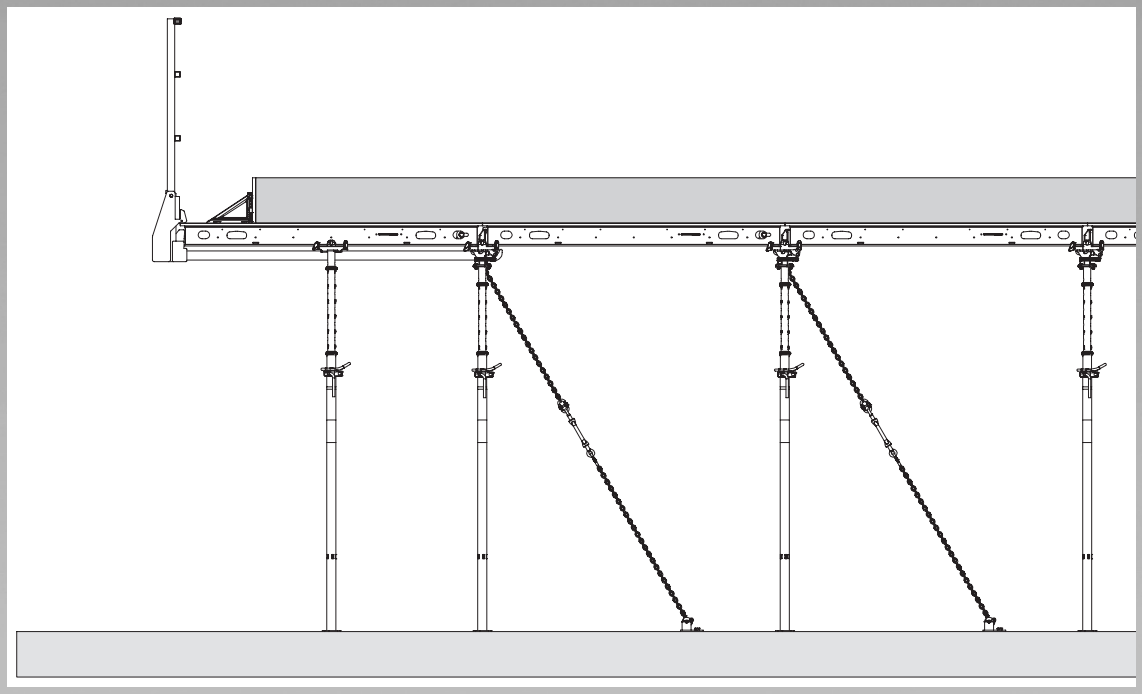
PERI Structural Design Information

SKYMAX Large Panel Slab Formwork Bracing

Structural Design Information – Version 4.0



Note

For the provision of PERI Structural Design Information, the current versions of the laws and regulations applicable in the respective states and countries must be observed and incorporated into this document!

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Terms of Use

PERI, with its headquarters in Germany, 89264 Weissenhorn, Rudolf-Diesel-Strasse, provides companies (hereinafter referred to as "Contractor") with PERI Structural Design Information (hereinafter referred to as "PERI SDI").

Area of application

- The PERI Terms of Use for PERI Structural Design Information supplement PERI's General Terms and Conditions as amended at the time of conclusion of the agreement (hereinafter referred to as "PERI General Terms and Conditions"). The PERI General Terms and Conditions are available at https://www.peri.de/ww/de/info/geschaeftsbedingungen/agbs.cfm. In the event of contradictions between these Terms of Use and the PERI General Terms and Conditions, these Terms of Use shall take precedence.
- These Terms of Use shall apply exclusively to business transactions with companies as defined by Section 14 of the German Civil Code (BGB), legal entities under public law, and special funds under public law.
- Any other business relationships shall remain unaffected by these Terms of Use.
- By using PERI Structural Design Information, the Contractor declares that they are in agreement with the validity of these Terms of Use.

Protective clause

- Unless expressly agreed otherwise within the agreement, the use of all PERI Structural Design Information is exclusively subject to these Terms of Use. Other regulations, in particular the general terms and conditions of business of the Contractor, shall not form part of the agreement, even if PERI does not expressly object to them.

Services provided by PERI and admission of usage rights

- PERI shall hold the PERI Structural Design Information ready for the Contractor and make this available to the Contractor on request as a PDF document or printout.
- PERI Structural Design Information is information provided in addition to the technical documentation for the standard configuration. The technical documents for the standard configuration of PERI products and systems are the Instructions for Assembly and Use and operating instructions.
  PERI Structural Design Information can include:
  – calculations,
  – tables,
  – charts,
  – graphical representations,
  – additional instructions for assembly and use beyond the standard configuration,
  – information on materials.
- By making PERI Structural Design Information available, PERI grants the Contractor a non-exclusive and non-transferable right to use the PERI Structural Design Information as agreed or, if nothing has been agreed, in a way that corresponds to the purpose pursued by PERI in making the PERI Structural Design Information available.

Purpose of the Structural Design Information

- The purpose of PERI SDI is to provide the Contractor with additional information that may assist the Contractor with preparing work and planning their project.
- The Contractor may use the PERI SDI to determine results and information that go beyond or deviate from the specifications of the Instructions for Assembly and Use or OI.

Prerequisites for use

- Compliance with the rules for application in the production and placing of concrete in accordance with EN 13670:2011-03 as well as EN 206:2021-06 and DIN 1045-2:2023-08 by the Contractor is required for the use of PERI SDI by the Contractor.
- The Contractor shall also have the necessary knowledge for processing fresh concrete and be qualified in handling PERI formwork technology, scaffolding technology and civil engineering technology.
- In order to use the PERI SDI, it is also assumed that the Contractor is qualified in the sense that they have the necessary knowledge to process the information made available to them.

Terms of Use

Usage rights for the PERI Structural Design Information

- Use of the information provided by PERI SDI and the results or procedures determined on the basis of PERI SDI shall be subject to these Terms of Use.
- PERI SDI must not be sold, rented, licensed or otherwise transferred to third parties by the Contractor. Unless mandatory legal regulations allow otherwise, the Contractor must not change, reverse engineer or translate the PERI SDI, nor the results and procedures determined by the PERI SDI, nor may parts of it be removed.
- It is not permitted for the Contractor or third parties to apply, modify or interpret the information provided by PERI SDI in any other way.
- PERI SDI is protected by copyright laws as well as international copyright treaties and other laws and agreements on intellectual property. The Contractor shall respect these rights. Identifiers, trademarks and copyright notices must not be removed from the PERI SDI.
- The Contractor shall not make any copies of the PERI SDI.
- There are no current temporal restrictions on the use of the PERI SDI.

Responsibilities of the Contractor

- When using the PERI SDI, the Contractor shall not violate standards of public decency with regard to usage behaviour nor violate industrial property rights, copyrights or other property rights. The Contractor shall not modify content, nor use PERI products and systems without taking into account Instructions for Assembly and Use and/or OI valid for the standard configuration.
- A Contractor that receives PERI SDI shall confirm receipt of the PERI SDI immediately upon receipt in writing or by email to PERI.
- Referring solely and exclusively to the PERI SDI is not sufficient for the use of formwork and scaffolding systems.
- A Contractor that uses PERI SDI shall observe and apply the Instructions for Assembly and Use and OI associated with the PERI product and PERI system and the information, notes, instructions and manuals contained therein.
- The Contractor shall carry out a risk assessment for their project using the PERI SDI provided, taking into account the Instructions for Assembly and Use and the OIs.
- The PERI Instructions for Assembly and Use and OIs contain safety information for all phases of a PERI product or PERI system. When using PERI SDI, the safety instructions of the Instructions for Assembly and Use and OIs shall also be observed and adhered to by the Contractor.
- The Contractor is obliged to take the necessary safety precautions before using PERI SDI.
- The Contractor shall prepare a risk assessment to prevent residual risks before using the PERI products and PERI systems listed in the PERI SDI.
- The Contractor using PERI SDI is obliged to carefully check the results and information obtained with the help of PERI SDI for errors. The same applies to graphical representations in the PERI SDI. Graphical representations shown in the PERI SDI are for illustrative purposes only. If there are indications that the calculation results or graphical representations of PERI SDI may be incorrect, the Contractor is obliged to have the calculation results and graphical representations checked by PERI before they are used.
- The work processes described in the PERI SDI for the assembly, dismantling and use of PERI products or systems offer additional information for the standard configuration and shall be carefully checked for errors before application.
- When using PERI SDI, the current version of all country-specific laws, standards and other safety regulations shall be observed.
- Before using the results and procedures determined by PERI SDI, the Contractor shall carefully familiarise themselves with the Instructions for Assembly and Use and OIs of the PERI product or PERI systems used on the construction site. The Contractor is therefore obliged to read the Instructions for Assembly and Use and the OIs of the PERI products or PERI systems they use on the construction site before commencing construction work, and to implement them completely without any deviations.
- The Contractor is obliged to make the PERI Instructions for Assembly and Use and OIs accessible and understandable to their employees and to ensure that their employees carry out the Instructions for Assembly and Use and OIs in full and without deviations.

Terms of Use

Guarantees and warranty

- PERI provides no guarantees or assurances. In particular, PERI cannot guarantee the accuracy of the results, graphical representations, diagrams and tables determined by the Contractor through the PERI SDI.
- The information about PERI products or PERI systems presented in the PERI SDI shall be checked before application. PERI cannot guarantee the accuracy of the information presented in the PERI SDI.
- PERI does not provide any guarantee or assurance with regard to material specifications.
- PERI cannot guarantee that PERI SDI will be available at all times.

Liability for legal and material defects

- If PERI SDI is provided free of charge, any liability for material and legal defects of the information, calculation results, graphical representations, diagrams, tables and procedures, in particular with regard to their correctness, freedom from errors, freedom from third party industrial property rights and copyrights, completeness and/or usability – except in the case of wilful or fraudulent intent – is excluded.

Other liability

- PERI's liability for legal and material defects shall be governed by the provisions in Section 9 of these PERI Terms of Use. Any further liability on the part of PERI is excluded unless required by the Product Liability Act, due to wilful intent, gross negligence, injury to life, body or health, due to the assumption of a quality guarantee, due to fraudulent concealment of a defect or due to the breach of essential contractual obligations. However, compensation for damages due to breach of essential contractual obligations shall be limited to the foreseeable damage typical for the agreement, unless wilful intent or gross negligence is involved.
- A change in the burden of proof to the detriment of the Contractor is not associated with the above provisions in Section 10.1.
- Insofar as PERI's liability is excluded or limited, this also applies to the liability of PERI's legal representatives, employees and vicarious agents.

Costs, further development and termination

- PERI currently makes all PERI SDI available to the Contractor free of charge. PERI reserves the right to offer the use of specific PERI SDI at any time against payment.
- PERI is not obliged to further develop the PERI SDI.
- PERI will continue to reserve the right to terminate the provision of PERI SDI at any time without justification.

Data protection

- When using PERI SDI, no personal data is stored by PERI.

Changes to the Terms of Use

- PERI reserves the right to modify the Terms of Use at any time. There will be no explicit reference to the change in the Terms of Use.

Place of jurisdiction and choice of law

- The place of jurisdiction for all disputes arising from the contractual relationship shall be the headquarters of PERI:
  PERI SE
  Rudolf-Diesel-Strasse 19
  89264 Weissenhorn
  Germany
  PERI reserves the right to take legal action at the legal place of jurisdiction of the Contractor.
- The laws of the Federal Republic of Germany shall apply exclusively to the exclusion of the Convention on Contracts for the International Sale of Goods (CISG).

Terms of Use

Place of performance

- The place of performance shall be the headquarters of PERI, Rudolf-Diesel-Strasse 19, 89264 Weissenhorn, Germany.

Severability clause

- Should individual provisions of these Terms of Use be or become invalid or unenforceable, the remaining provisions shall remain unaffected. In such a case, the parties shall undertake to replace the invalid or unenforceable provision with a valid and enforceable provision that corresponds as closely as possible to the actual and economic purpose of these Terms of Use. The same applies to gaps in the Terms of Use.

Contacting PERI

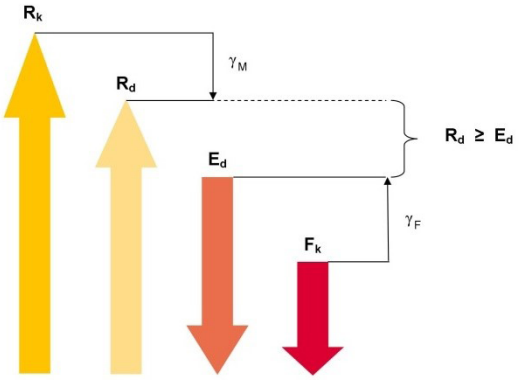
- The contact persons for the end users/end customers are the regionally assigned PERI subsidiaries and their PERI offices.

Area of application

This structural design information is used for structural design and planning of horizontal bracing and anti-tilt devices when using the Tensioning Unit SXP TU 3 T2, the Tensioning Unit SXP TU 15, and the attachments provided for this purpose on the SKYMAX Slab Formwork.
Stiffening with chains or push-pull props by way of tensioning units is necessary because the formwork would tilt or move away due to the front formwork pressure, column inclination and working mode, and wind loads.
The guardrail unit and guardrail post holders each have different wind loads, this has been taken into account for calculation of the wind loads.

Comparison of the structural design methods

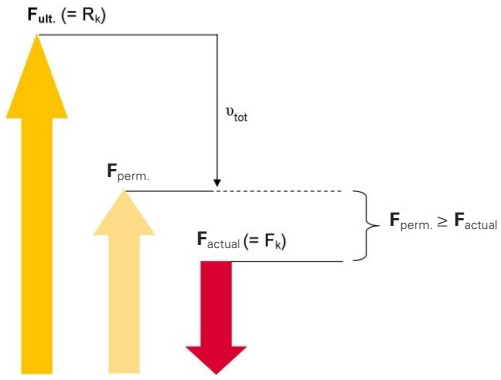
The structural design concept with partial safety factors



Method of proof

$$k_{mod.} \cdot \underbrace{\frac{R_k}{\gamma_M}}_{R_d} \geq \underbrace{F_k \cdot \gamma_F}_{E_d}$$

The old structural design concept with absolute safety factor
(see PERI Design Tables)



Method of proof

$$\underbrace{\frac{F_{ult.}}{\upsilon_{tot}}}_{F_{perm.}} \geq \underbrace{F_{actual}\ (=\ F_k)}_{F_{actual}\ (=\ F_k)}$$

Key:
R_k = Characteristic resistance
R_d = Structural design value of the resistance
F_k = F_{actual} = Existing or characteristic action
E_d = Structural design value of the effect
$F_{ult.}$ = R_k = Characteristic resistance
$F_{perm.}$ = Permissible load-bearing capacity
γ_M = Partial safety factor for the material (steel ≈ 1.1 / concrete ≈ 1.5)
γ_F = Partial safety factor for the load (permanent = 1.35 / changeable = 1.5)
υ_{tot} = Absolute safety factor ≈ $\gamma_M \cdot \gamma_F$ (steel ≈ 1.65 / concrete ≈ 2.25)

Characteristic values are stated in the document, see Section “Design load” on page 13.

Boundary conditions

Boundary conditions in general

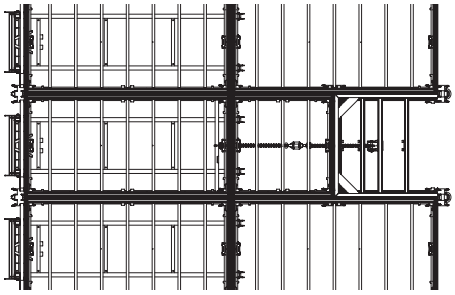
- The structural design information is only valid in connection with the Instructions for Assembly and Use for SKYMAX Large Panel Slab Formwork.

- As a general rule, the cantilevered panel should be braced.

- Edge panel without cantilever when using the Guardrail Post Holder SXP GPR / GPL T2:
  – Bracing at the edge panel generally required.

- Edge panel without cantilever when using the SXP GU 100 Guardrail Unit:
  – with horizontal load in accordance with DIN EN 12811-1:2004-03 (**0.30 kN**):
  → bracing not required on the edge panel.
  – with horizontal load in accordance with US standard OSHA 1926.502(b)(3) (**0.89 kN**):
  → bracing required on the edge panel.

- Edge panel without cantilever when using Panel SXP P 100 x 100 Alu in second row:
  – The edge panel must be braced, regardless of whether the horizontal equivalent load is applied in accordance with DIN EN 12811-1:2004-03 or OSHA 1926.502(b)(3).



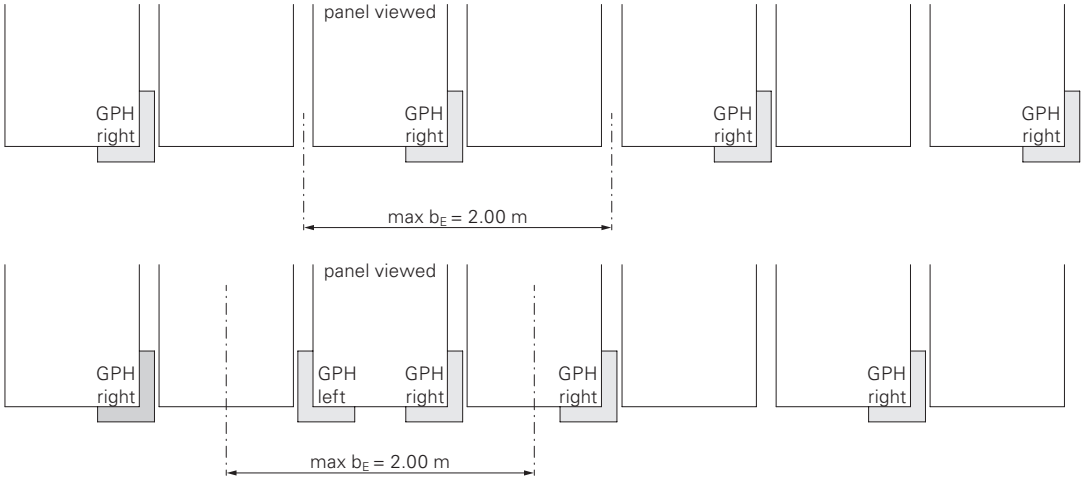
- Execute the formwork contiguously in filler areas if horizontal loads are accumulated by way of "tension".

- Tensioned panels for absorbing the edge panel loads must be executed in an interconnected manner.

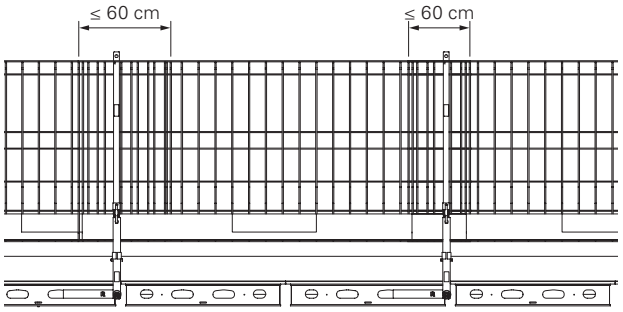
- In the Instructions for Assembly and Use, only the tables with front formwork pressure are shown in a simplified way for the Tensioning Unit SXP TU 3 T2, and tables are not shown at all for the Tensioning Unit SXP TU 15. Refer to the tables in Section "A1 Tensioning Unit SXP TU 3 T2" and Section "A2 Tensioning Unit SXP TU 15" for the required bracing. For applications with front formwork pressure, use the tables "Front formwork pressure must be dissipated with bracing". If it is ensured that the front formwork pressure will short-circuit, e.g. a building open on both sides with contiguous formwork, or that the face formwork pressure will be relieved in some other way, the tables "front formwork pressure remains in the system" may be used.

- On the cantilevered edge panel, the slab prop must be placed in the centre of the panel. This results in a minimum slab projection of 20 cm. For the maximum slab projections, see the tables in Section "A1 Tensioning Unit SXP TU 3 T2" and Section "A2 Tensioning Unit SXP TU 15".

- For use with Guardrail Post Holder SXP GPR/GPL T2:
  – Maximum total influence width per panel of lateral protection ≤ 2.00 m. If two guardrail post holders are used on one panel, the influence width changes as shown below.



- When using Guardrail Post Holders SXP GPR/GPL T2 with Lateral Protection Barrier PMB: the lateral protection barrier overlap at each guardrail post is ≤ 60 cm.



Additional boundary conditions for SXP TU 3 T2 bracing

- The potential widths of the working area / slab projection depend on the slab thickness and the choice of lateral protection (guardrail unit, guardrail post holder with boards or guardrail post holder with lateral protection barrier).
  See tables in Section "A1 Tensioning Unit SXP TU 3 T2" or tables in the SKYMAX Instructions for Assembly and Use.

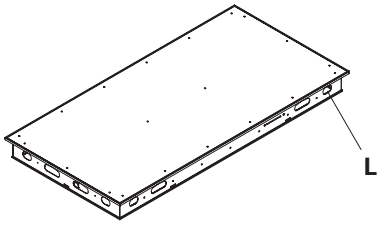
- If guardrail post holders are used, the tables for guardrail units can be used for the panel rows without guardrail post holders.

- Use a maximum of 1 tensioning unit +1 chain per panel in each direction.

- Angle between chain and panel on cantilevered panel SXP P Alu: α = 60 ° (anti-tilt device).

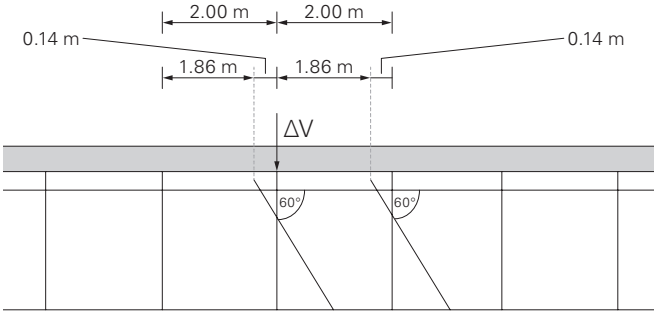
Notes on structural design

- Angle between chain and panel on the internally installed panels (panels without cantilever and without guardrail): $\alpha \leq 60$ ° (only horizontal loads, no tilting; table values were determined for 60 °).
- The number of chains and connected panels in the tables in Section "A1 Tensioning Unit SXP TU 3 T2" refer to one panel row.
- Permissible tension force of Tensioning Unit SXP TU 3 T2 and anchor chain: $Z_{perm} = 3.0$ kN.
- Use the Tensioning Unit SXP TU 3 T2 in conjunction with the PERI formwork chain 3 kN, a suitable PERI base plate and a suitable concrete anchor. The tension force in the formwork chain is: $Z_k = 3.0$ kN.
- Always install the Tensioning Unit SXP TU 3 T2 on the Panel SXP P Alu in the outer function holes (**L**) of the SKYMAX Panel.



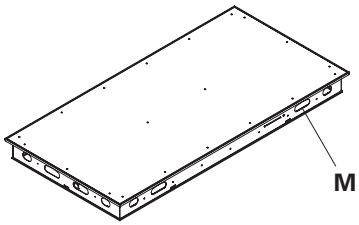
- Arrange the tensioning units and chains on the panels so that no prop receives more than $\Delta V = 2.6$ kN (= 3.0 kN x sin 60 °) additional load.
  Calculation: ΔV = (1.86 m / 2.00 m x 3.0 kN x sin 60 °) + (0.14 m / 2.00 m x 3.0 kN x sin 60 °)

Panels SXP P Alu

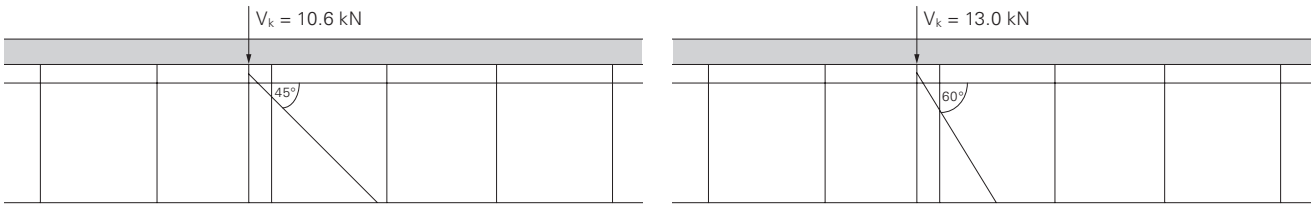


Additional boundary conditions for SXP TU 15 bracing

- Tensioning Unit SXP TU 15 only to be used in combination with Panels SXP P Alu.
- The Tensioning Unit SXP TU 15 is installed in every 2nd panel row (influence width b_E = 2.00 m).
- The Tensioning Unit SXP TU 15 is installed in the recessed grips (**M**) of the long edge profile and also grips the edge profiles of the adjacent panels.
- Install the Tensioning Unit SXP TU 15 in the recessed grip (**M**) in such a way that the round tube is in contact with the bottom of the Panel SXP P Alu. An air gap is required at the top between the round tube and the Panel SXP P Alu.



- If a row of panels can only be supported on one side with an adjacent Tensioning Unit SXP TU 15, brace this row of panels with units SXP TU 3 T2 and use the corresponding tables for SXP TU 3 T2 (e.g. panels next to adjacent wall).
- Angle between push-pull prop and panel on cantilevered edge bay: α = 45 ° – 60 ° (anti-tilt device)
  – Table values were determined for 45 ° and 60 °.
- Angle between the push-pull prop and panel in the inner bays: $\alpha \leq$ 60 ° (horizontal loads only, no tilting)
  – Table values were determined for 45 ° and 60 °.
- Permissible tension force of Tensioning Unit SXP TU 15: Z_{perm} = 15.0 kN.
- Use the Tensioning Unit SXP TU 15 in conjunction with a suitable PERI push-pull prop, PERI base plate and a suitable concrete anchor. The tension force in the push-pull prop is: Z_k = 15.0 kN.
- Provide support for the Tensioning Unit SXP TU 15 with an additional slab prop in the middle of the traverse to absorb the additional vertical load.
  Vertical load on prop:
  – Push-pull prop at less than 45 °: V_k = 10.6 kN
  – Push-pull prop at less than 60 °: V_k = 13.0 kN



- The number of braces and connected bays shown in the tables in Section “A2 Tensioning Unit SXP TU 15” refer to the panel row in which the Tensioning Unit SXP TU 15 is installed. (Every 2nd panel row with 2x half the influence width of the connected adjacent panel rows.)
- The width of the maximum slab projection is always 50 cm when using the SXP TU 15 (regardless of the slab thickness and the choice of lateral protection).

Design load

The table values in Section "A1 Tensioning Unit SXP TU 3 T2" and Section "A2 Tensioning Unit SXP TU 15" are based on the following loads.
A design load was chosen according to DIN EN 12812:2008-12 and DIN EN 12811-1:2004-03.
In addition, the horizontal equivalent load according to US standard OSHA 1926.502(b)(**3**) (as of 14 March 2001) was taken into account. This has no effect on the required number of braces.
The loads listed are service loads F_k (characteristic effects).

Vertical loads:

- Dead weight: Q_1 = 0.20 kN/m²
- Concrete weight: $Q_{2,b}$ = 24.5 kN/m³ * d_{Slab} (DIN EN 12812:2008-12, 8.2.2.1.1)
- Live load working operations: $Q_{2,p}$ = 0.75 kN/m² (DIN EN 12812:2008-12, 8.2.2.1.3)
- Live load concreting: Q_4 = 0.1 * $Q_{2,b}$ with 0.75 kN/m² ≤ Q_4 ≤ 1.75 kN/m² (DIN EN 12812:2008-12, 8.2.3.1)
- Total load: Q = $Q_1 + Q_{2,b} + Q_{2,p} + Q_4$
- Uniformly distributed live load for working area edge panel $q_{working\ scaffold}$ = 1.50 kN/m² (DIN EN 12811-1:2004-03, load class 2)
- Single live load 500 x 500 mm for working area edge panel $Q_{working\ scaffold}$ = 1.50 kN (DIN EN 12811-1:2004-03, load class 2)

Horizontal loads:

- Horizontal load from working mode = 1% of vertical load (DIN EN 12812:2008-12, 8.2.2.2)
- Horizontal load from tilted position = 1% of vertical load (DIN EN 12812:2008-12, 9.3.4.2)
- Dynamic pressure working wind $q_{working\ wind}$ = 0.20 kN/m² (DIN EN 12812:2008-12, 8.2.4.2 or DIN EN 12811-1:2004-03, 6.2.7.4.2)
- Dynamic pressure maximum wind $q_{maximum\ wind}$ = 0.60 kN/m² (this value is used to record most of the wind conditions in Europe, see DIN EN 13374:2019-06, 6.3.4)
- Height of the replacement area for equipment + materials on scaffolding level in LF working wind $h_{working\ wind}$ = 400 mm (DIN EN 12811-1:2004-03, 6.2.7.4.2)
- Height of the replacement area for equipment + materials on scaffolding level in LF maximum wind $h_{maximum\ wind}$ = 200 mm (DIN EN 12811-1:2004-03, 6.2.7.4.1)
- Horizontal load from wind on lateral protection (without toe board, replacement area for equipment includes the height of the toe board):

Per Tensioning Unit SXP TU 3 T2	Guardrail Unit SXP GU 100	Guardrail Post Holder SXP GPR/GPL T2 + 3x boards 15/3 cm (total influence width per panel ≤ 2.00 m)	Guardrail Post Holder SXP GPR/GPL T2 + Lateral Protection Barrier PMB (overlap. ≤ 60 cm)
Working wind $H_{Working\ wind}$	0.075 kN	0.367 kN	0.297 kN
Maximum wind $H_{Maximum\ wind}$	0.225 kN	1.100 kN	0.890 kN

Per Tensioning Unit SXP TU 15	2x Guardrail Unit SXP GU 100	Guardrail Post Holder SXP GPR/GPL T2 + 3x boards 15/3 cm (total influence width per panel ≤ 2.00 m)	Guardrail Post Holder SXP GPR/GPL T2 + Lateral Protection Barrier PMB (overlap. ≤ 60 cm)
Working wind $H_{Working\ wind}$	0.150 kN	0.367 kN	0.297 kN
Maximum wind $H_{Maximum\ wind}$	0.449 kN	1.100 kN	0.890 kN

- Horizontal load on lateral protection as an alternative to wind load:

	"European" DIN EN 12811-1:2004-03, 6.2.5.2	US standard OSHA 1926.502(b)(3)
$H_{lateral\ protection}$	0.30 kN	0.89 kN *) (200 pounds)

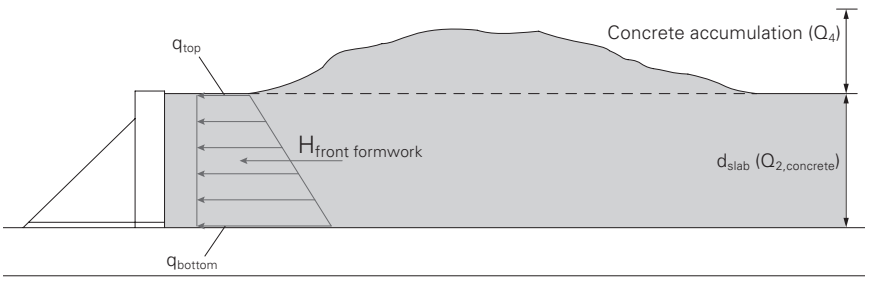
*) Proof "against breakage"

- Horizontal load from front formwork pressure per Tensioning Unit SXP TU 3 T2:

Slab thickness	$H_{front\ formwork}$
14 cm	0.35 kN
16 cm	0.43 kN
18 cm	0.53 kN
20 cm	0.64 kN
22 cm	0.76 kN
24 cm	0.89 kN
26 cm	1.02 kN
28 cm	1.17 kN
30 cm	1.33 kN
32 cm	1.51 kN
35 cm	1.80 kN
40 cm	2.35 kN
45 cm	2.98 kN
50 cm	3.68 kN
55 cm	4.45 kN

- Horizontal load from front formwork pressure per Tensioning Unit SXP TU 15:

Slab thickness	$H_{front\ formwork}$
14 cm	0.69 kN
16 cm	0.87 kN
18 cm	1.06 kN
20 cm	1.28 kN
22 cm	1.52 kN
24 cm	1.77 kN
26 cm	2.05 kN
28 cm	2.34 kN
30 cm	2.66 kN
32 cm	3.01 kN
35 cm	3.60 kN
40 cm	4.70 kN
45 cm	5.95 kN
50 cm	7.35 kN
55 cm	8.89 kN



A1 Tensioning Unit SXP TU 3 T2

Information on the tables

Key:

- Column A:
  required number of Tensioning Units SXP TU 3 T2 + chains to carry the loads arising at the edge panel.
  (Tipping loads, wind load, horizontal loads from working operation and tilting, where applicable front formwork pressure.)

- Columns B:
  maximum number of inner panels that can also be connected to the last Tensioning Unit SXP TU 3 T2 + chain for the edge panel loads.
  (Horizontal loads from working operation and tilting of this number of inner panels can also be absorbed by the edge panel bracing)
  – Column B-1: Edge panel with cantilever
  – Column B-2: Edge panel without cantilever

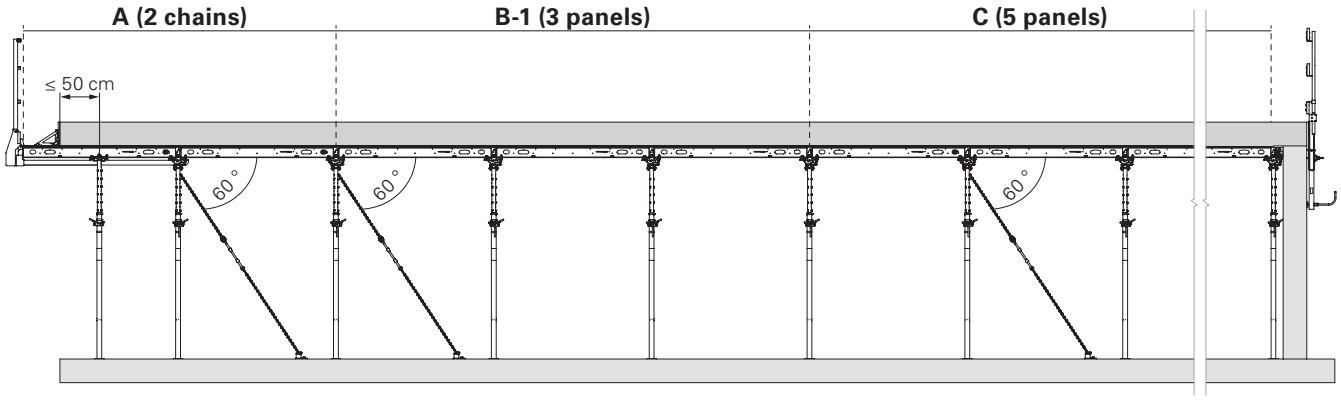
- Column C:
  maximum number of inner panels that can be connected to a Tensioning Unit SXP TU 3 T2 + chain.
  (Horizontal loads from working operation and tilting of this number of inner panels can be absorbed with one bracing.)

Guardrail Unit SXP GU 100 with Panels SXP P Alu

Panels SXP P Alu + SXP TU 3 T2 + SXP GU 100

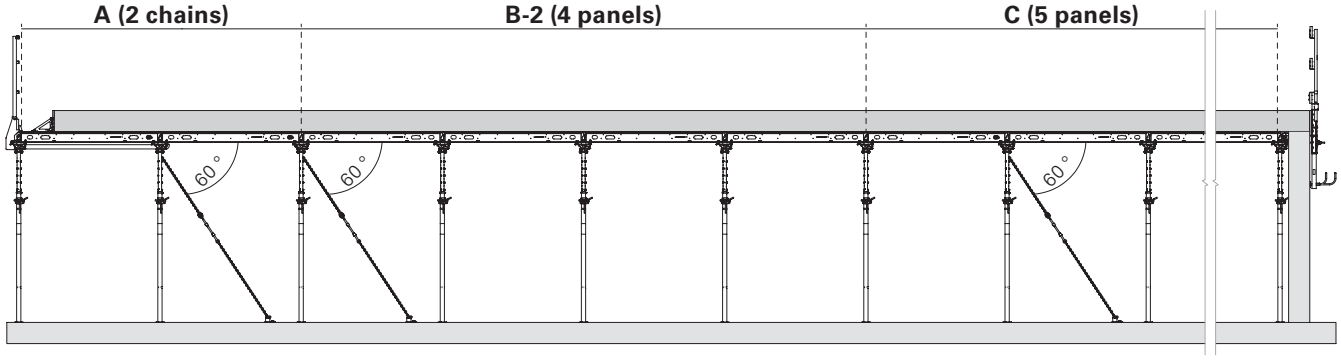
Front formwork pressure must be dissipated with bracing (e.g. building open on one side)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of chains for edge panel loads (A)	Max. number of inner panels connected to the last chain with edge panel loads (B)		Max. number of inner panels connected per chain (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 chains	2.0 panels	4.0 panels	8.5 panels
16 cm		1.0 chains	1.5 panels	3.0 panels	7.5 panels
18 cm		1.0 chains	1.0 panels	2.5 panels	7.0 panels
20 cm		1.0 chains	1.0 panels	1.5 panels	6.5 panels
22 cm		1.0 chains	0.5 panels	1.0 panels	6.0 panels
24 cm		1.0 chains	0.5 panels	0.5 panels	5.5 panels
26 cm		2.0 chains	4.0 panels	4.0 panels	5.0 panels
28 cm		2.0 chains	3.0 panels	3.0 panels	5.0 panels
30 cm		2.0 chains	2.0 panels	2.0 panels	4.5 panels
32 cm		2.0 chains	1.5 panels	1.5 panels	4.5 panels
35 cm		2.0 chains	0.5 panels	0.5 panels	4.0 panels
40 cm	45 cm	3.0 chains	1.5 panels	1.5 panels	3.5 panels
45 cm		4.0 chains	1.5 panels	1.5 panels	3.0 panels
50 cm		5.0 chains	1.5 panels	1.5 panels	3.0 panels
55 cm		6.0 chains	1.5 panels	1.5 panels	2.5 panels

A1 Tensioning Unit SXP TU 3 T2



Example: slab thickness 28 cm, building open on one side with cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GU 100.

P_{Slab} ≤ 50 cm **A = 2 chains** **B-1 = 3 panels** **C = 5 panels**



Example: slab thickness 26 cm, building open on one side without cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GU 100.

A = 2 chains **B-2 = 4 panels** **C = 5 panels**

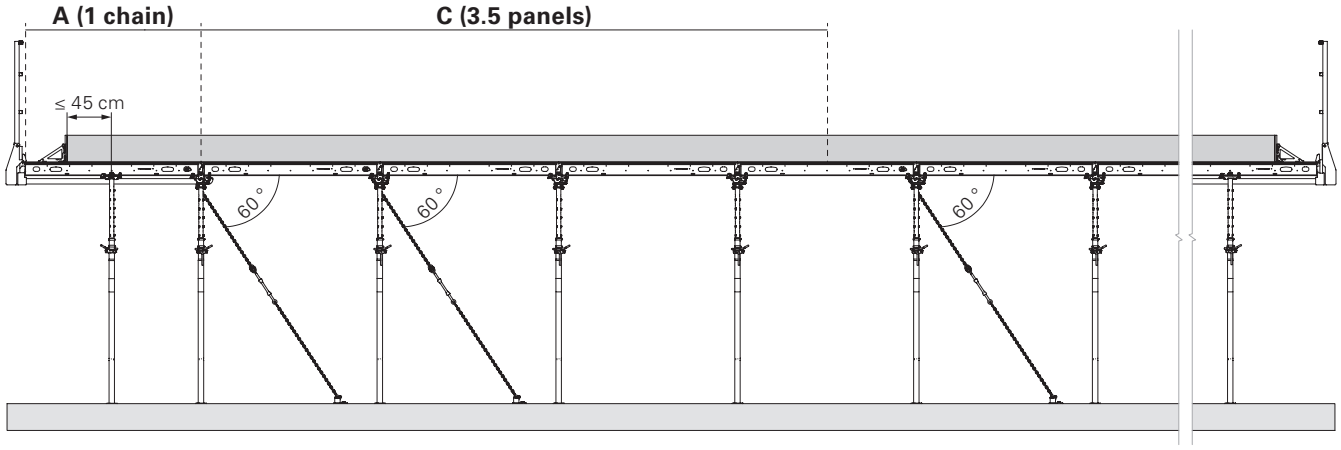
A1 Tensioning Unit SXP TU 3 T2

Panels SXP P Alu + SXP TU 3 T2 + SXP GU 100

Front formwork pressure remains in the system (e.g. building open on both sides with continuous formwork)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of chains for edge panel loads (A)	Max. number of inner panels connected to the last chain with edge panel loads (B)		Max. number of inner panels connected per chain (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 chains	2.0 panels	6.0 panels	8.5 panels
16 cm		1.0 chains	1.5 panels	5.5 panels	7.5 panels
18 cm		1.0 chains	1.0 panels	5.0 panels	7.0 panels
20 cm		1.0 chains	1.0 panels	4.5 panels	6.5 panels
22 cm		1.0 chains	0.5 panels	4.0 panels	6.0 panels
24 cm		1.0 chains	0.5 panels	3.5 panels	5.5 panels
26 cm		1.0 chains	0.5 panels	3.0 panels	5.0 panels
28 cm		1.0 chains	0.0 panels	3.0 panels	5.0 panels
30 cm		1.0 chains	0.0 panels	2.5 panels	4.5 panels
32 cm		1.0 chains	0.0 panels	2.5 panels	4.5 panels
35 cm		1.0 chains	0.0 panels	2.0 panels	4.0 panels
40 cm	45 cm	1.0 chains	0.0 panels	2.0 panels	3.5 panels
45 cm		1.0 chains	0.0 panels	1.5 panels	3.0 panels
50 cm		1.0 chains	0.0 panels	1.5 panels	3.0 panels
55 cm		1.0 chains	0.0 panels	1.0 panels	2.5 panels

A1 Tensioning Unit SXP TU 3 T2

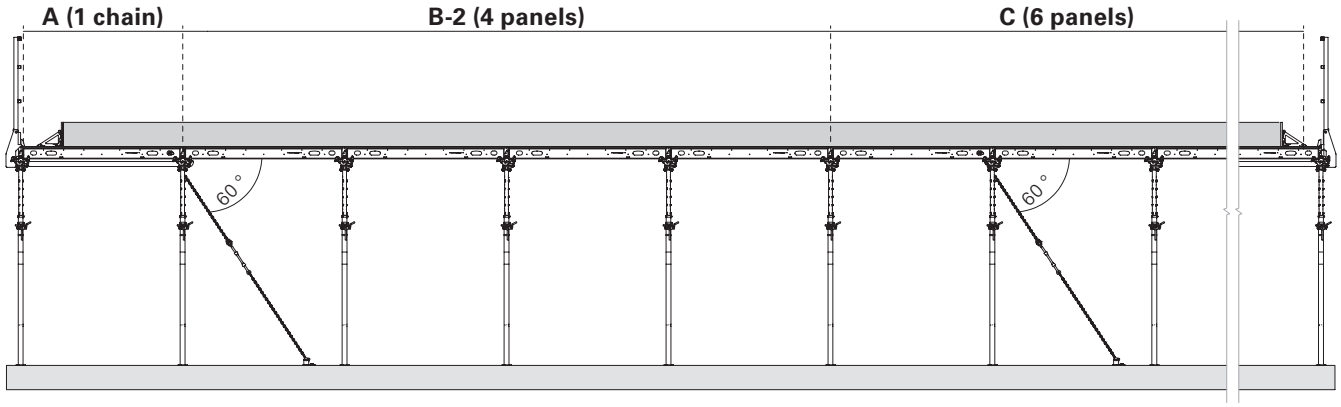
On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 40 cm, building open on both sides with cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GU 100.

P_{slab} ≤ 45 cm **A = 1 chain** **B-1 = 0 panels** **C = 3.5 panels**

On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 22 cm, building open on both sides without cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GU 100.

A = 1 chain **B-2 = 4 panels** **C = 6 panels**

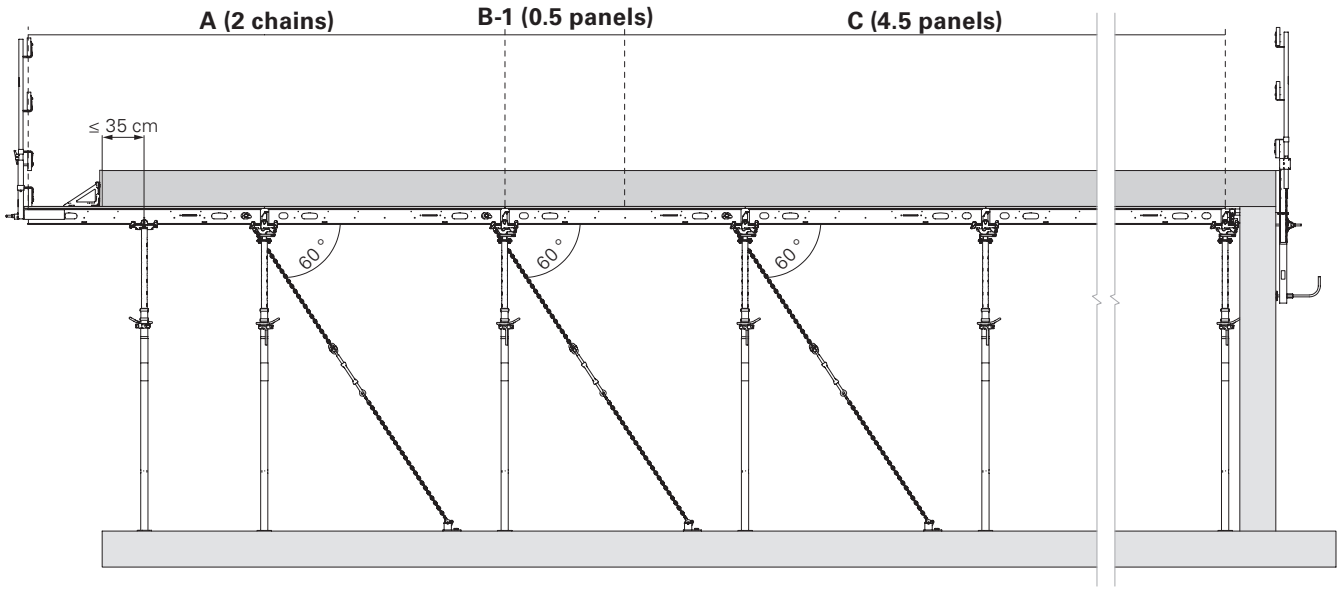
A1 Tensioning Unit SXP TU 3 T2

Guardrail Post Holder SXP GPR/GPL T2 with Panels SXP P Alu and guardrail boards

Panels SXP P Alu + SXP TU 3 T2 + SXP GPR/GPL T2 + guardrail boards (15/3 cm)

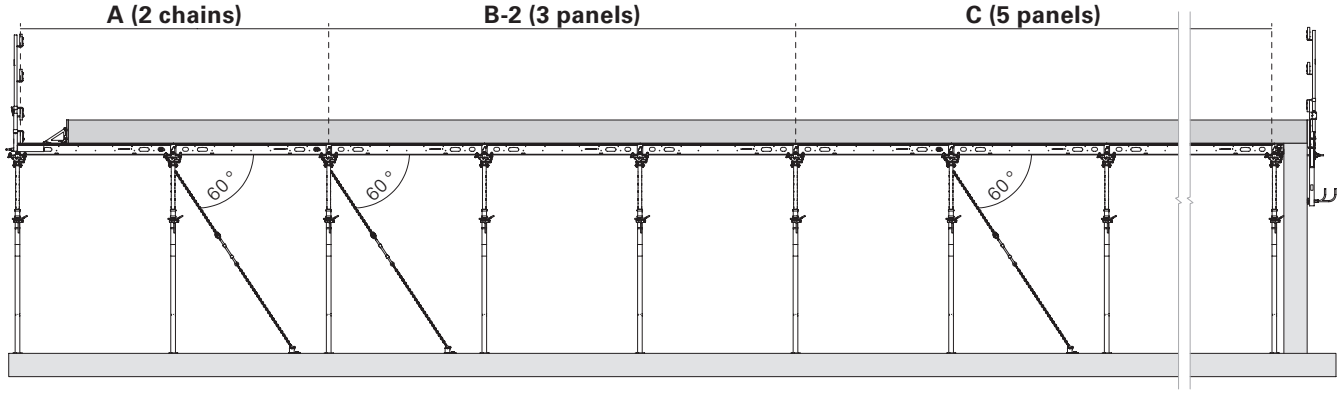
Front formwork pressure must be dissipated with bracing (e.g. building open on one side)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of chains for edge panel loads (A)	Max. number of inner panels connected to the last chain with edge panel loads (B)		Max. number of inner panels connected per chain (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	46 cm	1.0 chains	0.0 panels	2.5 panels	8.5 panels
16 cm	44 cm	1.0 chains	0.0 panels	1.5 panels	7.5 panels
18 cm	42 cm	1.0 chains	0.0 panels	1.0 panels	7.0 panels
20 cm	40 cm	1.0 chains	0.0 panels	0.5 panels	6.5 panels
22 cm	39 cm	2.0 chains	4.5 panels	4.5 panels	6.0 panels
24 cm	38 cm	2.0 chains	3.5 panels	3.5 panels	5.5 panels
26 cm	37 cm	2.0 chains	3.0 panels	3.0 panels	5.0 panels
28 cm	36 cm	2.0 chains	2.0 panels	2.0 panels	5.0 panels
30 cm	35 cm	2.0 chains	1.5 panels	1.5 panels	4.5 panels
32 cm		2.0 chains	0.5 panels	0.5 panels	4.5 panels
35 cm		3.0 chains	2.5 panels	2.5 panels	4.0 panels
40 cm		3.0 chains	0.5 panels	0.5 panels	3.5 panels
45 cm		4.0 chains	1.0 panels	1.0 panels	3.0 panels
50 cm		5.0 chains	1.0 panels	1.0 panels	3.0 panels
55 cm		6.0 chains	1.0 panels	1.0 panels	2.5 panels

A1 Tensioning Unit SXP TU 3 T2



Example: slab thickness 32 cm, building open on one side with cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GPR/GPL T2 + guardrail boards.

P_{slab} ≤ 35 cm **A = 2 chains** **B-1 = 0.5 panels** **C = 4.5 panels**



Example: slab thickness 26 cm, building open on one side without cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GPR/GPL T2 + guardrail boards.

A = 2 chains **B-2 = 3 panels** **C = 5 panels**

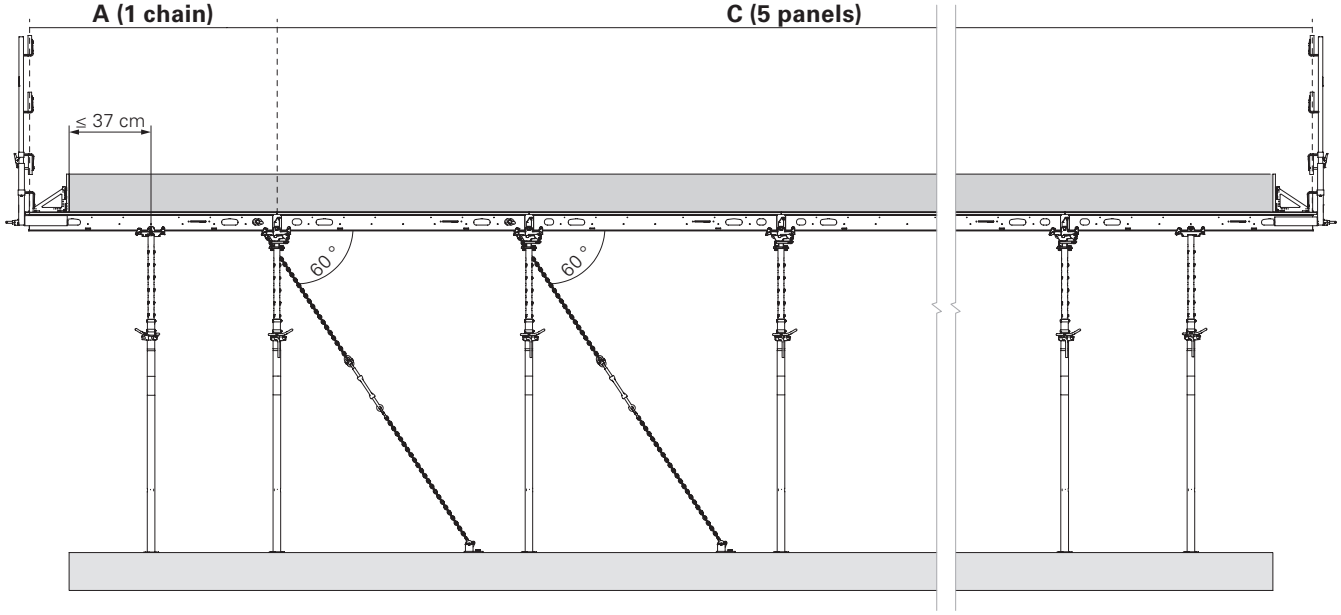
A1 Tensioning Unit SXP TU 3 T2

Panels SXP P Alu + SXP TU 3 T2 + SXP GPR/GPL T2 + guardrail boards (15/3 cm)

Front formwork pressure remains in the system (e.g. building open on both sides with continuous formwork)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of chains for edge panel loads (A)	Max. number of inner panels connected to the last chain with edge panel loads (B)		Max. number of inner panels connected per chain (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	46 cm	1.0 chains	0.0 panels	4.5 panels	8.5 panels
16 cm	44 cm	1.0 chains	0.0 panels	4.0 panels	7.5 panels
18 cm	42 cm	1.0 chains	0.0 panels	3.5 panels	7.0 panels
20 cm	40 cm	1.0 chains	0.0 panels	3.0 panels	6.5 panels
22 cm	39 cm	1.0 chains	0.0 panels	2.5 panels	6.0 panels
24 cm	38 cm	1.0 chains	0.0 panels	2.5 panels	5.5 panels
26 cm	37 cm	1.0 chains	0.0 panels	2.0 panels	5.0 panels
28 cm	36 cm	1.0 chains	0.0 panels	2.0 panels	5.0 panels
30 cm	35 cm	1.0 chains	0.0 panels	2.0 panels	4.5 panels
32 cm		1.0 chains	0.0 panels	1.5 panels	4.5 panels
35 cm		2.0 chains	3.0 panels	5.5 panels	4.0 panels
40 cm		2.0 chains	2.5 panels	4.5 panels	3.5 panels
45 cm		2.0 chains	2.0 panels	4.0 panels	3.0 panels
50 cm		2.0 chains	1.5 panels	3.5 panels	3.0 panels
55 cm		2.0 chains	1.5 panels	3.0 panels	2.5 panels

A1 Tensioning Unit SXP TU 3 T2

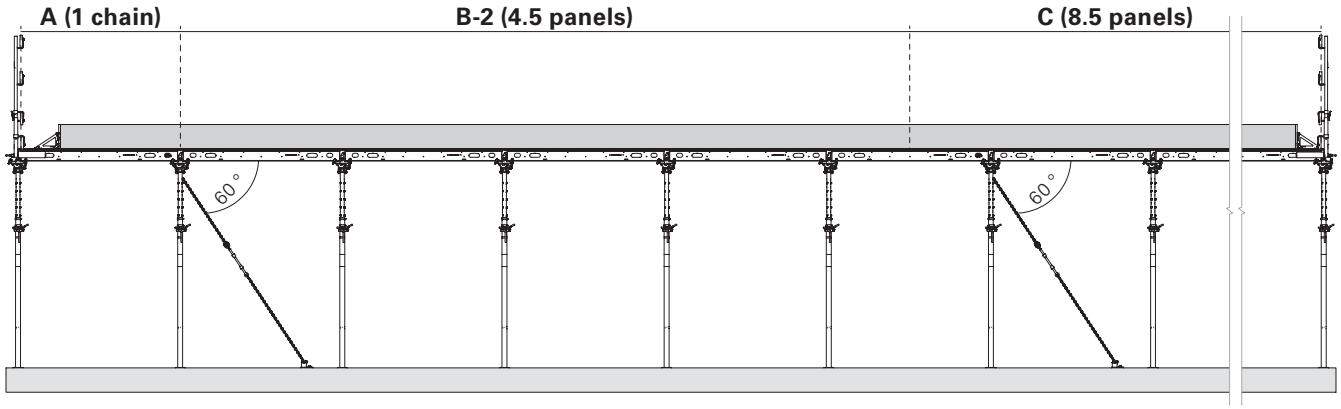
On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 26 cm, building open on both sides with cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + guardrail boards.

P_{slab} ≤ 37 cm **A = 1 chain** **B-1 = 0 panels** **C = 5 panels**

On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 14 cm, building open on both sides without cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + guardrail boards.

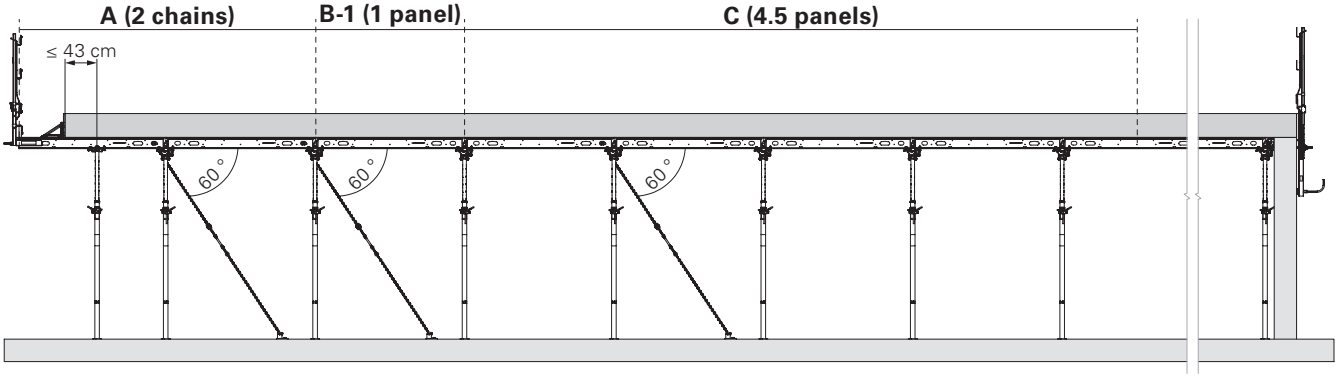
A = 1 chain **B-2 = 4.5 panels** **C = 8.5 panels**

Guardrail Post Holder SXP GPR/GPL T2 with Panels SXP P Alu and lateral protection barrier

Panels SXP P Alu + SXP TU 3 T2 + SXP GPR/GPL T2 + Lateral Protection Barrier PMB 260/240

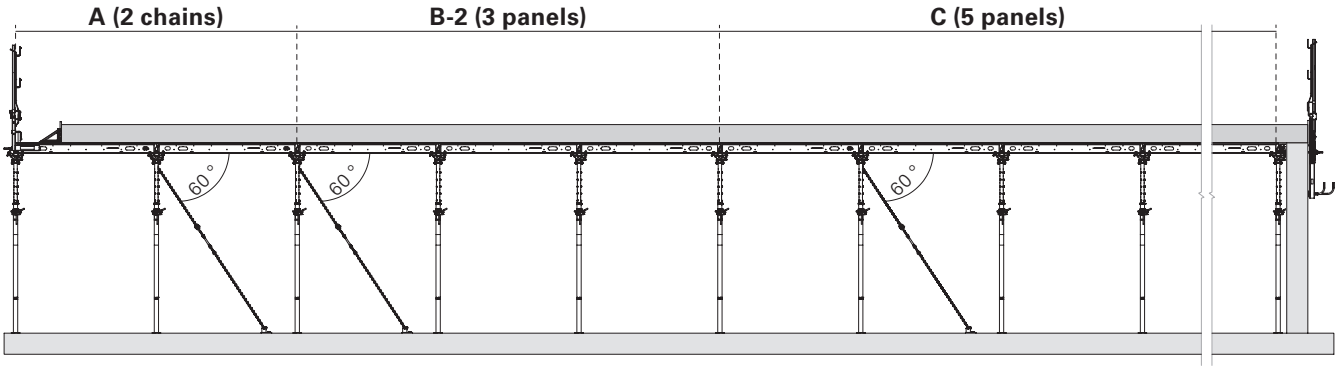
Front formwork pressure must be dissipated with bracing (e.g. building open on one side)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of chains for edge panel loads (A)	Max. number of inner panels connected to the last chain with edge panel loads (B)		Max. number of inner panels connected per chain (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 chains	0.5 panels	3.0 panels	8.5 panels
16 cm		1.0 chains	0.5 panels	2.0 panels	7.5 panels
18 cm		1.0 chains	0.0 panels	1.5 panels	7.0 panels
20 cm	49 cm	1.0 chains	0.0 panels	0.5 panels	6.5 panels
22 cm	47 cm	1.0 chains	0.0 panels	0.0 panels	6.0 panels
24 cm	45 cm	2.0 chains	4.0 panels	4.0 panels	5.5 panels
26 cm	44 cm	2.0 chains	3.0 panels	3.0 panels	5.0 panels
28 cm	44 cm	2.0 chains	2.5 panels	2.5 panels	5.0 panels
30 cm	43 cm	2.0 chains	1.5 panels	1.5 panels	4.5 panels
32 cm	43 cm	2.0 chains	1.0 panels	1.0 panels	4.5 panels
35 cm	42 cm	3.0 chains	3.0 panels	3.0 panels	4.0 panels
40 cm	40 cm	3.0 chains	1.0 panels	1.0 panels	3.5 panels
45 cm		4.0 chains	1.5 panels	1.5 panels	3.0 panels
50 cm		5.0 chains	1.5 panels	1.5 panels	3.0 panels
55 cm		6.0 chains	1.0 panels	1.0 panels	2.5 panels

A1 Tensioning Unit SXP TU 3 T2



Example: slab thickness 32 cm, building open on one side with cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

P_{slab} ≤ 43 cm **A = 2 chains** **B-1 = 1 panel** **C = 4.5 panels**



Example: slab thickness 26 cm, building open on one side without cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

A = 2 chains **B-2 = 3 panels** **C = 5 panels**

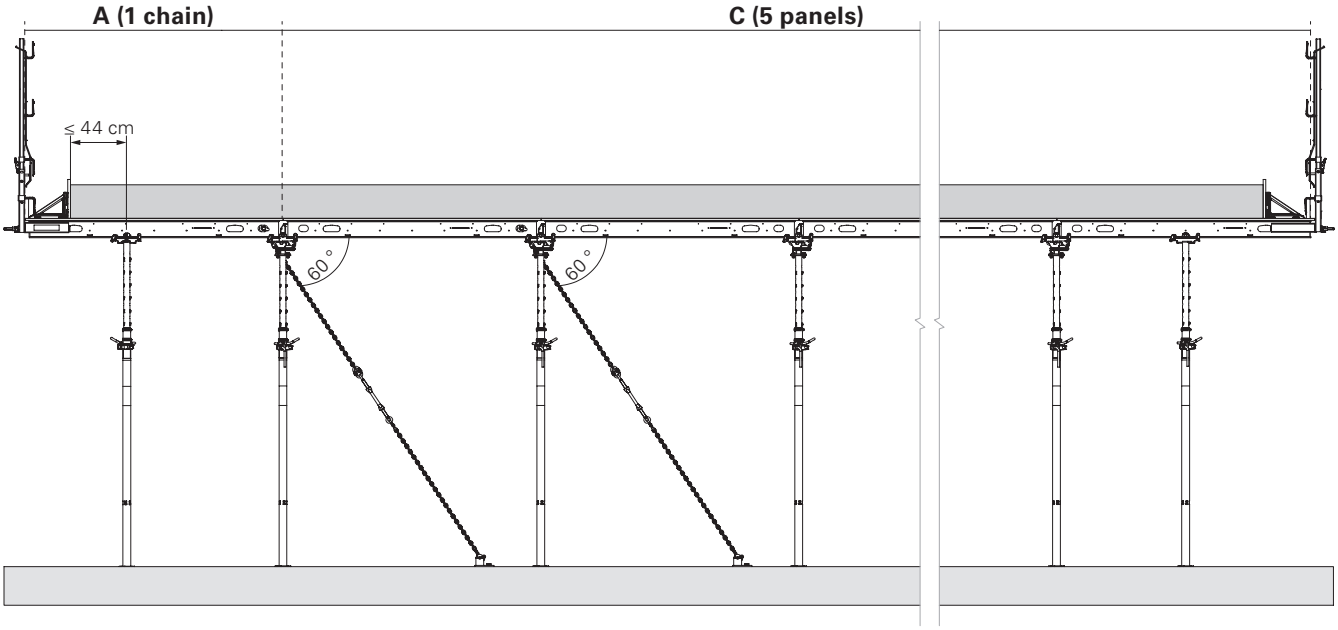
A1 Tensioning Unit SXP TU 3 T2

Panels SXP P Alu + SXP TU 3 T2 + SXP GPR/GPL T2 + Lateral Protection Barrier PMB 260/240

Front formwork pressure remains in the system (e.g. building open on both sides with continuous formwork)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of chains for edge panel loads (A)	Max. number of inner panels connected to the last chain with edge panel loads (B)		Max. number of inner panels connected per chain (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 chains	0.5 panels	5.0 panels	8.5 panels
16 cm		1.0 chains	0.5 panels	4.0 panels	7.5 panels
18 cm		1.0 chains	0.0 panels	3.5 panels	7.0 panels
20 cm	49 cm	1.0 chains	0.0 panels	3.5 panels	6.5 panels
22 cm	47 cm	1.0 chains	0.0 panels	3.0 panels	6.0 panels
24 cm	45 cm	1.0 chains	0.0 panels	2.5 panels	5.5 panels
26 cm	44 cm	1.0 chains	0.0 panels	2.5 panels	5.0 panels
28 cm	44 cm	1.0 chains	0.0 panels	2.5 panels	5.0 panels
30 cm	43 cm	1.0 chains	0.0 panels	2.0 panels	4.5 panels
32 cm	43 cm	1.0 chains	0.0 panels	2.0 panels	4.5 panels
35 cm	42 cm	1.0 chains	0.0 panels	1.5 panels	4.0 panels
40 cm	40 cm	1.0 chains	0.0 panels	1.5 panels	3.5 panels
45 cm		1.0 chains	0.0 panels	1.0 panels	3.0 panels
50 cm		1.0 chains	0.0 panels	1.0 panels	3.0 panels
55 cm		1.0 chains	0.0 panels	0.5 panels	2.5 panels

A1 Tensioning Unit SXP TU 3 T2

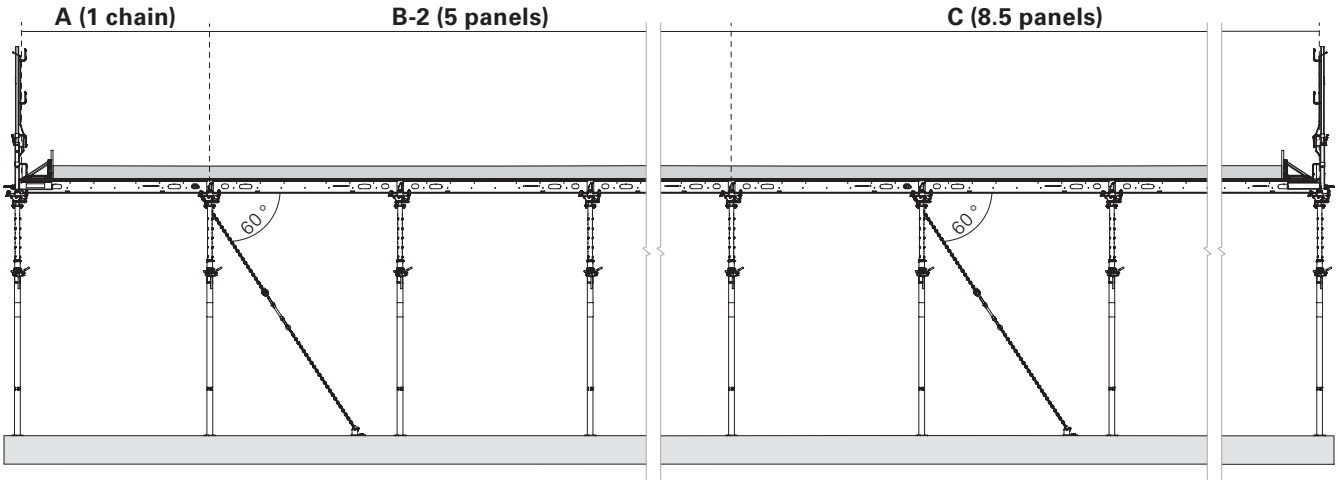
On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 26 cm, building open on both sides with cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

P_{slab} ≤ 44 cm **A = 1 chain** **B-1 = 0 panels** **C = 5 panels**

On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 14 cm, building open on both sides without cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

A = 1 chain **B-2 = 5 panels** **C = 8.5 panels**

A2 Tensioning Unit SXP TU 15

Information on the tables

Key:

- Column A:
  required number of Tensioning Units SXP TU 15 + push-pull props to carry the loads arising at the edge panel.
  (Tipping loads, wind load, horizontal loads from working operation and tilting, where applicable front formwork pressure.)

- Columns B:
  maximum number of inner panels that can be additionally connected to the last Tensioning Unit SXP TU 15 + push-pull prop for the edge panel loads.
  (Horizontal loads from working operation and tilting of this number of inner panels can also be absorbed by the edge panel bracing)
  – Column B-1: Edge panel with cantilever
  – Column B-2: Edge panel without cantilever

- Column C:
  maximum number of inner panels that can be connected to a Tensioning Unit SXP TU 15 + push-pull prop.
  (Horizontal loads from working operation and tilting of this number of inner panels can be absorbed with one bracing.)

Notes on safe application

Note

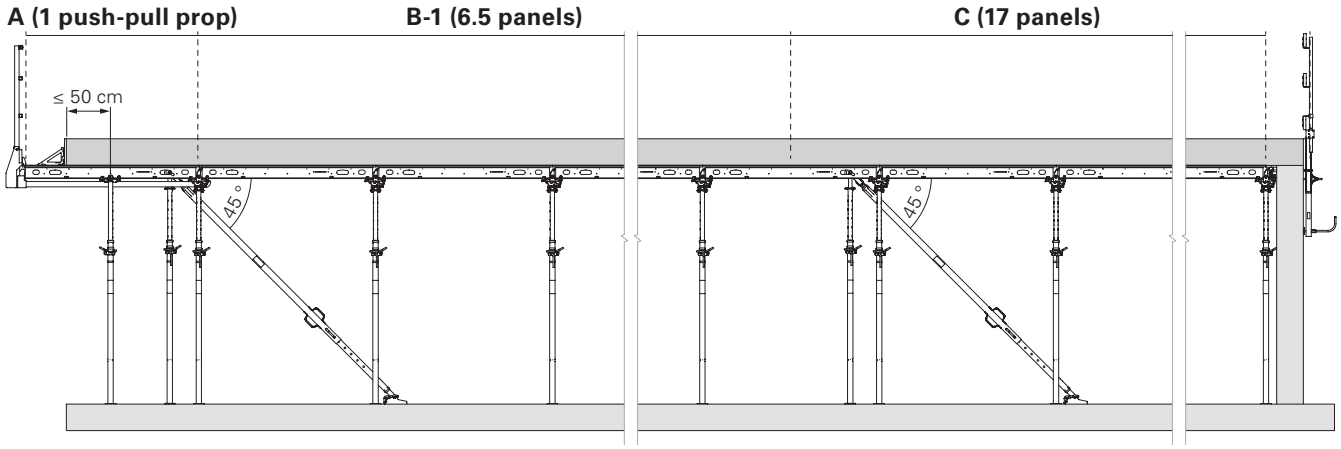
The diagonal push-pull prop may only be subjected to tension, similar to bracing with a chain.

Bracing when used with push-pull prop at 45 ° angle

Applies to the following combinations:
- Panels SXP P Alu + SXP TU 15 + SXP GU 100
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + guardrail boards (15/3 cm)
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + Lateral Protection Barrier PMB 260/240

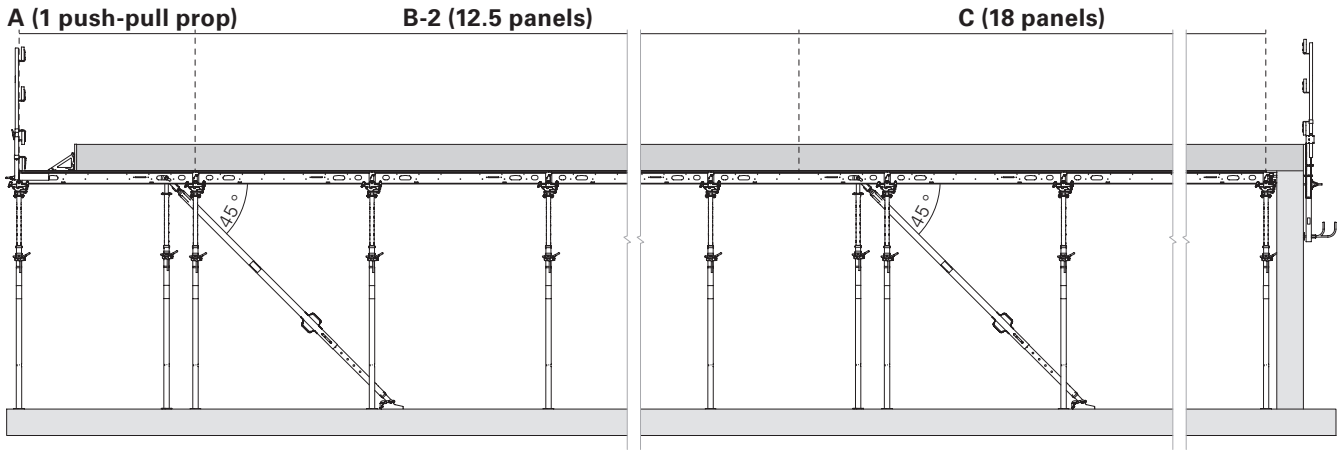
Front formwork pressure must be dissipated with bracing (e.g. building open on one side)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of braces for edge panel loads (A)	Max. number of inner panels connected to the last bracing with edge panel loads (B)		Max. number of inner panels connected per bracing (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 bracing	15.0 bays	25.0 bays	30.5 bays
16 cm		1.0 bracing	13.0 bays	22.0 bays	27.0 bays
18 cm		1.0 bracing	11.5 bays	19.5 bays	24.5 bays
20 cm		1.0 bracing	10.0 bays	17.5 bays	22.5 bays
22 cm		1.0 bracing	9.0 bays	15.5 bays	21.0 bays
24 cm		1.0 bracing	8.0 bays	14.0 bays	19.5 bays
26 cm		1.0 bracing	7.0 bays	12.5 bays	18.0 bays
28 cm		1.0 bracing	6.5 bays	11.0 bays	17.0 bays
30 cm		1.0 bracing	6.0 bays	10.0 bays	16.0 bays
32 cm		1.0 bracing	5.5 bays	8.5 bays	15.0 bays
35 cm		1.0 bracing	5.0 bays	7.0 bays	14.0 bays
40 cm		1.0 bracing	4.5 bays	5.0 bays	12.5 bays
45 cm		1.0 bracing	3.0 bays	3.0 bays	11.0 bays
50 cm		1.0 bracing	1.5 bays	1.5 bays	10.0 bays
55 cm		2.0 bracing	8.0 bays	8.0 bays	9.0 bays

A2 Tensioning Unit SXP TU 15



Example: slab thickness 28 cm, building open on one side with cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GU 100.

P_{Slab} ≤ 50 cm **A = 1 push-pull prop** **B-1 = 6.5 panels** **C = 17 panels**



Example: slab thickness 26 cm, building open on one side without cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GPR/GPL T2 + guardrail boards.

A = 1 push-pull prop **B-2 = 12.5 panels** **C = 18 panels**

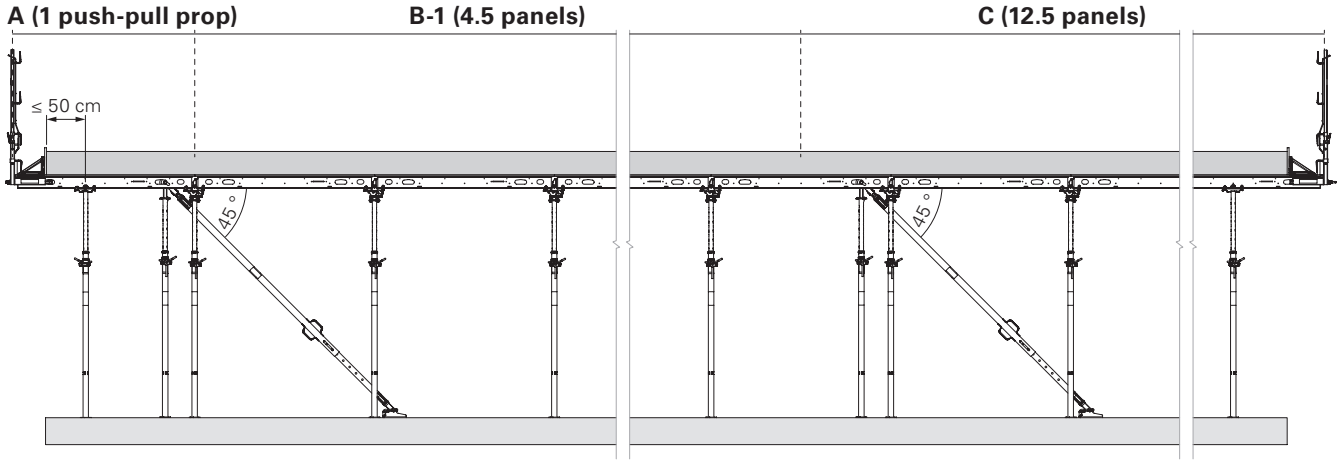
A2 Tensioning Unit SXP TU 15

Applies to the following combinations:
- Panels SXP P Alu + SXP TU 15 + SXP GU 100
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + guardrail boards (15/3 cm)
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + Lateral Protection Barrier PMB 260/240

Front formwork pressure remains in the system (e.g. building open on both sides with continuous formwork)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of braces for edge panel loads (A)	Max. number of inner panels connected to the last bracing with edge panel loads (B)		Max. number of inner panels connected per bracing (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 bracing	15.0 bays	27.0 bays	30.5 bays
16 cm		1.0 bracing	13.0 bays	24.5 bays	27.0 bays
18 cm		1.0 bracing	11.5 bays	22.0 bays	24.5 bays
20 cm		1.0 bracing	10.0 bays	20.0 bays	22.5 bays
22 cm		1.0 bracing	9.0 bays	18.5 bays	21.0 bays
24 cm		1.0 bracing	8.0 bays	17.0 bays	19.5 bays
26 cm		1.0 bracing	7.0 bays	16.0 bays	18.0 bays
28 cm		1.0 bracing	6.5 bays	15.0 bays	17.0 bays
30 cm		1.0 bracing	6.0 bays	14.0 bays	16.0 bays
32 cm		1.0 bracing	5.5 bays	13.0 bays	15.0 bays
35 cm		1.0 bracing	5.0 bays	12.0 bays	14.0 bays
40 cm		1.0 bracing	4.5 bays	10.5 bays	12.5 bays
45 cm		1.0 bracing	3.5 bays	9.0 bays	11.0 bays
50 cm		1.0 bracing	3.0 bays	8.5 bays	10.0 bays
55 cm		1.0 bracing	3.0 bays	7.5 bays	9.0 bays

A2 Tensioning Unit SXP TU 15

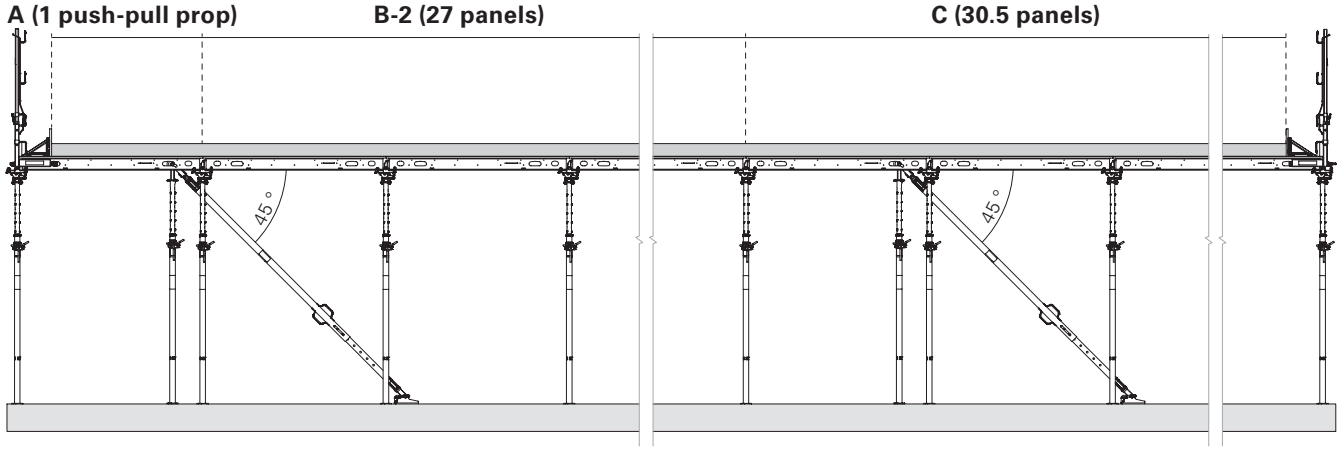
On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 40 cm, building open on both sides with cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

P_{slab} ≤ 50 cm **A = 1 push-pull prop** **B-1 = 4.5 panels** **C = 12.5 panels**

On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 14 cm, building open on both sides without cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

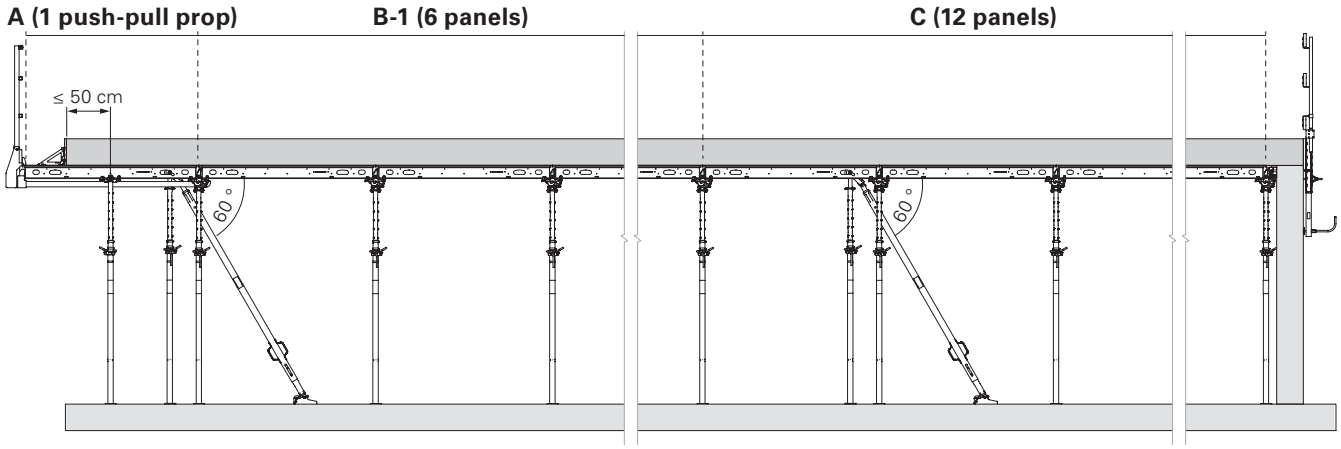
A = 1 push-pull prop **B-2 = 27 panels** **C = 30.5 panels**

Bracing when used with push-pull prop at 60 ° angle

Applies to the following combinations:
- Panels SXP P Alu + SXP TU 15 + SXP GU 100
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + guardrail boards (15/3 cm)
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + Lateral Protection Barrier PMB 260/240

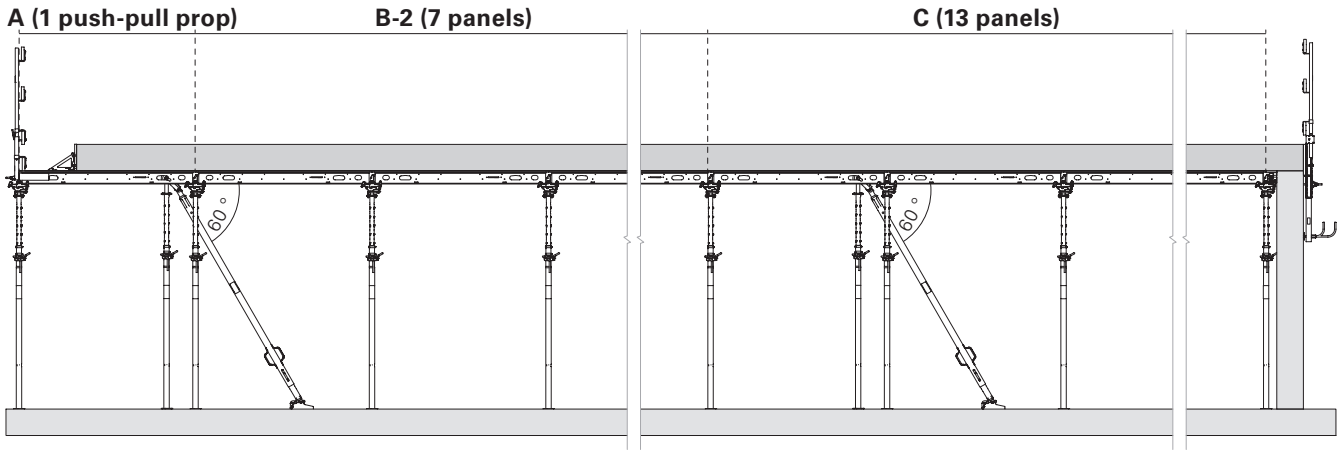
Front formwork pressure must be dissipated with bracing (e.g. building open on one side)					
Slab thick-ness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of braces for edge panel loads (A)	Max. number of inner panels connected to the last bracing with edge panel loads (B)		Max. number of inner panels connected per bracing (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 bracing	12.5 bays	16.5 bays	21.5 bays
16 cm		1.0 bracing	11.0 bays	14.0 bays	19.0 bays
18 cm		1.0 bracing	10.0 bays	12.5 bays	17.5 bays
20 cm		1.0 bracing	8.5 bays	10.5 bays	16.0 bays
22 cm		1.0 bracing	8.0 bays	9.5 bays	15.0 bays
24 cm		1.0 bracing	7.0 bays	8.0 bays	13.5 bays
26 cm		1.0 bracing	6.5 bays	7.0 bays	13.0 bays
28 cm		1.0 bracing	6.0 bays	6.0 bays	12.0 bays
30 cm		1.0 bracing	5.0 bays	5.0 bays	11.5 bays
32 cm		1.0 bracing	4.5 bays	4.5 bays	10.5 bays
35 cm		1.0 bracing	3.0 bays	3.0 bays	10.0 bays
40 cm		1.0 bracing	1.5 bays	1.5 bays	8.5 bays
45 cm		2.0 bracing	6.5 bays	6.5 bays	8.0 bays
50 cm		2.0 bracing	4.5 bays	4.5 bays	7.0 bays
55 cm		2.0 bracing	2.5 bays	2.5 bays	6.5 bays

A2 Tensioning Unit SXP TU 15



Example: slab thickness 28 cm, building open on one side with cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GU 100.

P_{Slab} ≤ 50 cm **A = 1 push-pull prop** **B-1 = 6 panels** **C = 12 panels**



Example: slab thickness 26 cm, building open on one side without cantilever, front formwork pressure must be dissipated, use Panels SXP P Alu + SXP GPR/GPL T2 + guardrail boards.

A = 1 push-pull prop **B-2 = 7 panels** **C = 13 panels**

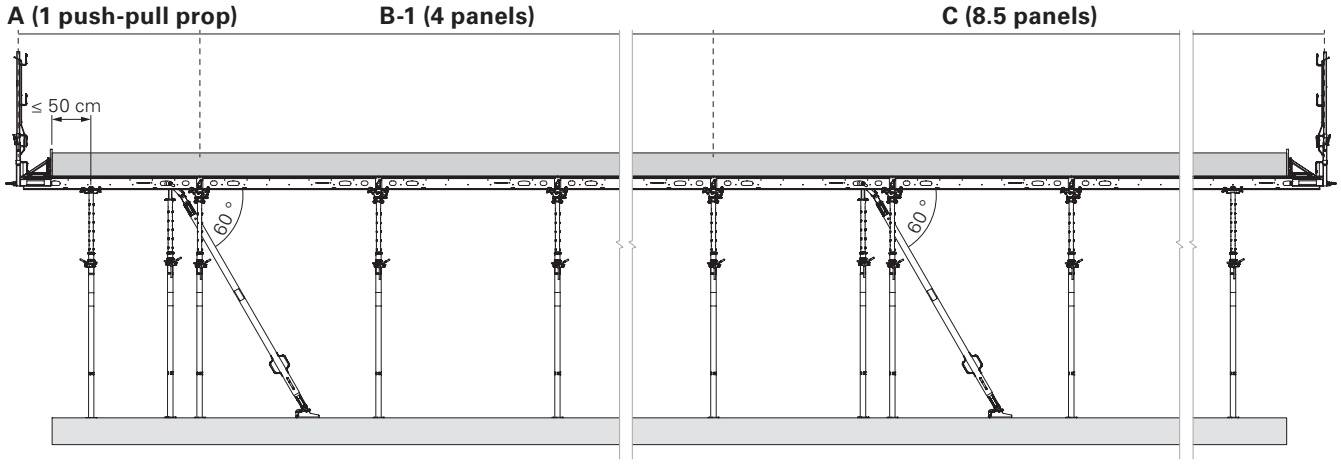
A2 Tensioning Unit SXP TU 15

Applies to the following combinations:
- Panels SXP P Alu + SXP TU 15 + SXP GU 100
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + guardrail boards (15/3 cm)
- Panels SXP P Alu + SXP TU 15 + SXP GPR/GPL T2 + Lateral Protection Barrier PMB 260/240

Front formwork pressure remains in the system (e.g. building open on both sides with continuous formwork)					
Slab thickness	Maximum slab projection for edge panel with cantilever max p_{slab}	Required number of braces for edge panel loads (A)	Max. number of inner panels connected to the last bracing with edge panel loads (B)		Max. number of inner panels connected per bracing (C)
			Edge panel with cantilever (B-1)	Edge panel without cantilever (B-2)	
14 cm	50 cm	1.0 bracing	12.5 bays	18.5 bays	21.5 bays
16 cm		1.0 bracing	11.0 bays	16.5 bays	19.0 bays
18 cm		1.0 bracing	10.0 bays	15.0 bays	17.5 bays
20 cm		1.0 bracing	8.5 bays	13.5 bays	16.0 bays
22 cm		1.0 bracing	8.0 bays	12.5 bays	15.0 bays
24 cm		1.0 bracing	7.0 bays	11.5 bays	13.5 bays
26 cm		1.0 bracing	6.5 bays	10.5 bays	13.0 bays
28 cm		1.0 bracing	6.0 bays	10.0 bays	12.0 bays
30 cm		1.0 bracing	5.5 bays	9.0 bays	11.5 bays
32 cm		1.0 bracing	5.0 bays	8.5 bays	10.5 bays
35 cm		1.0 bracing	4.5 bays	8.0 bays	10.0 bays
40 cm		1.0 bracing	4.0 bays	7.0 bays	8.5 bays
45 cm		1.0 bracing	3.5 bays	6.0 bays	8.0 bays
50 cm		1.0 bracing	3.0 bays	5.5 bays	7.0 bays
55 cm		1.0 bracing	3.0 bays	5.0 bays	6.5 bays

A2 Tensioning Unit SXP TU 15

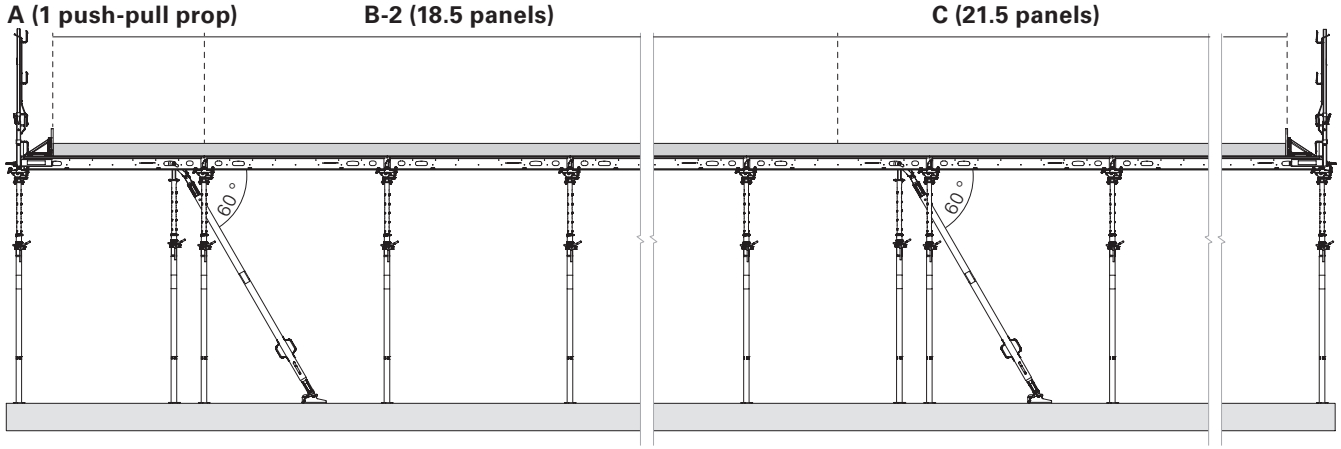
On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 40 cm, building open on both sides with cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

P_{slab} ≤ 50 cm **A = 1 push-pull prop** **B-1 = 4 panels** **C = 8.5 panels**

On the drawing, the bracing is only shown in one direction for a better overview. Bracing is required for buildings open on both sides in both directions.



Example: slab thickness 14 cm, building open on both sides without cantilever, front formwork pressure remains in the system, use Panels SXP P Alu + SXP GPR/GPL T2 + lateral protection barrier.

A = 1 push-pull prop **B-2 = 18.5 panels** **C = 21.5 panels**

A3 Transfer of horizontal loads using building columns

General information
The horizontal loads according to DIN EN 12812:2008-12 are to be accommodated by the building walls, columns or bracing. The SKYMAX Large Panel Slab Formwork is able to transfer these horizontal loads into the building columns in accordance with Table B1.01 without the need to install additional bracing.
(Fig. B1.01)

Prerequisite
The prerequisite is that the building columns can accommodate the horizontal loads in Table B1.01.

- Evidence that the horizontal load H can be safely transferred during construction must be provided by the structural engineer responsible for the structure.
- With a rectangular column grid, the largest column spacing is decisive.
- It is only possible to transfer H-loads through the heads to the building columns by applying pressure.
- Tipping loads, wind loads, front formwork pressure, etc. must be transferred separately at the slab edge, e.g. via Tensioning Units SXP TU 3 T2 or SXP TU 15. See column A in the tables in the corresponding sections.

Slab thickness **d**	Permissible distance Building columns **a**	Horizontal load on building column **H**
[cm]	[m]	[kN]
14 cm	7.83 m	5.50 kN
16 cm	7.42 m	5.50 kN
18 cm	7.07 m	5.50 kN
20 cm	6.77 m	5.50 kN
22 cm	6.50 m	5.50 kN
24 cm	6.27 m	5.50 kN
26 cm	6.05 m	5.50 kN
28 cm	5.86 m	5.50 kN
30 cm	5.69 m	5.50 kN
32 cm	5.52 m	5.50 kN
35 cm	5.30 m	5.50 kN
40 cm	4.84 m	5.21 kN
45 cm	4.44 m	4.92 kN
50 cm	4.12 m	4.70 kN
55 cm	3.85 m	4.53 kN

Tab. A3.01

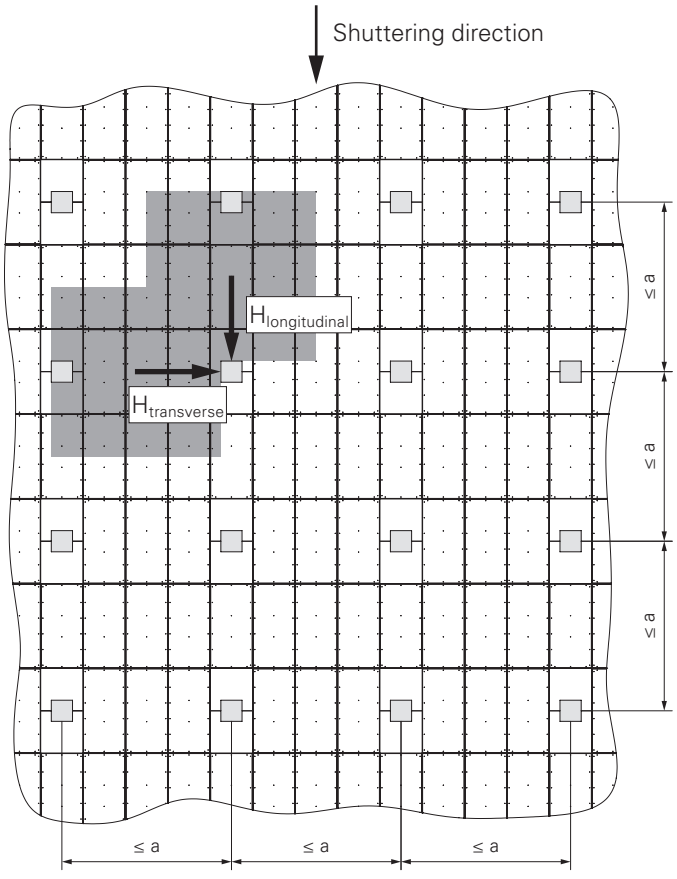


Fig. A3.01

Handover log

Name: _____

Position: _____

Project no.: _____

I have been provided with the PERI Structural Design Information in its entirety.

I have been instructed on how to use the information in the correct manner.

The Instructions for Assembly and Use and/or the Translation of Original Instructions for Use for the associated system are in my possession and I understand them.
I know the safety regulations and will adhere to them in practice.

If I should have any questions or in the case of any uncertainty, I will contact: _____
Or: Support.Formwork@peri.com

Date/Signature: _____

PERI SE
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89264 Weissenhorn
Germany
Phone +49 7309 950-0
Fax +49 7309 951-0
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The optimal system for every project and every requirement



Wall formwork



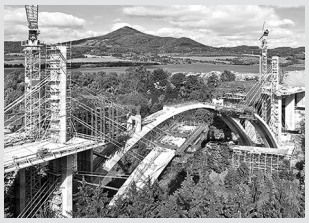
Column formwork



Slab formwork



Climbing systems



Bridge formwork



Tunnel formwork



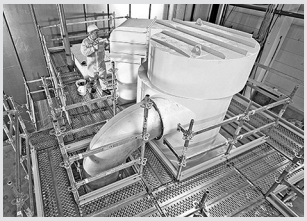
Shoring systems



Construction scaffolds



Facade scaffolds



Industrial scaffolds



Access



Safety scaffolds



Safety systems



System-independent accessories



Services

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