

INHUS Engineering, UAB
Žarijų g. 6, LT-02300 Vilnius
Tel. +370 5 260 0120
engineering@inhus.eu

3401 HE
REQUIREMENTS FOR
PRESTRESSED HOLLOW CORE SLABS PKE

VILNIUS, 2026

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Preface

This catalogue is intended as reference material for the design and production stages of precast prestressed hollow core slabs (hereinafter referred to as “products”).

The design of individual products should follow the regulatory documents in force in the respective country and the specified design requirements, while their production should be carried out in accordance with the manufacturing documentation.

1. Scope of Application

This catalogue is intended for designers, manufacturers, logistics specialists, and other related parties.

It provides structured technical information for the design and production of the products (cross-section geometry, reinforcement schemes, and other recommendations).

2. Normative References

In the design of products and the preparation of their working drawings, it is recommended to follow these regulatory and technical documents (adapted to the specific country):

- 1) EN 1990 “Eurocode: Basis of structural design”;
- 2) EN 1991 “Eurocode 1: Actions on structures”;
- 3) EN 1992 “Eurocode 2: Design of concrete structures”;
- 4) EN 1168 “Precast concrete products – Hollow core slabs”;
- 5) EN 13369 “Common rules for precast concrete products”;
- 6) EN 206 “Concrete – Specification, performance, production and conformity”;
- 7) EN 10080 “Steel for the reinforcement of concrete – Weldable reinforcing steel – General”;
- 8) EN 10025-2 “Hot rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels”;
- 9) prEN 10138-3 “Prestressing steels – Part 3: Strand”;
- 10) CEN/TR 15728 “Design and Use of Inserts for Lifting and Handling of Precast Concrete – Elements”;
- 11) UAB “INHUS” production technology descriptions and equipment technical instructions.

Note: General references to standards are provided; it is mandatory to consider the regulatory documents in force in the respective country and the national annexes to the standards.

3. Terms and Definitions

The terms and definitions used in this catalogue comply with those specified in the documents listed in Section 2.

4. Description of the Products

HCS and PKE cross-sections are manufactured in Vilnius (Lithuania) in thicknesses of 200, 265, 320, and 400 mm. TAM cross-sections are produced in Tartu (Estonia) in thicknesses of 220, 265, 320, and 400 mm. All products have a standard width of 1200 mm and variable lengths. They are primarily used for floor and roof structures in buildings of various types.

The manufactured products may include different types of openings, recesses, and niches. In specific cases, embedded inserts may also be provided.

Standard hollow core end caps are 100 mm long. If project requirements necessitate 200 mm end caps, this is possible; however, we must be notified in advance.

The products are lifted using specialized lifting beams with clamps or via traditional lifting loops embedded in the slabs.

The products are manufactured in accordance with the production technology and the instructions for the use of technological equipment. A brief description of the production process is as follows:

- The number of strands specified in the working drawings is tensioned;
- Using special equipment in slipform moulds, a continuous slab of approximately 100 m in length is cast;
- Before the concrete hardens, various openings, recesses, niches, lifting loops, and embedded inserts are installed in the designated locations, as specified in the working drawings;
- After about a day, when the concrete has reached strength class C25/30, the prestressed strands are released at the ends of the continuous slab;
- The continuous slab is cut to the required length using a special circular saw, either crosswise or diagonally;
- If needed, the slab is cut longitudinally with a special saw to obtain narrower slabs;
- The finished products are lifted with a special lifting beam with clamps (during lifting, holes are automatically drilled in the slab voids to remove water), then transported to storage or directly to the construction site.

5. Product Marking

The product marking consists of groups of letters and numbers. Example: 2PKE 40-13-2/3x, where:

- 2 – strand position in the cross-section (1 – 35 mm; 2 – 45 mm; 3 – 55 mm);
- PKE – product name (slab, hollow core, extruded);
- 40 – product thickness in centimetres (20 – 200 mm; 22 – 220 mm; 27 – 265 mm; 32 – 320 mm; 40 – 400 mm);
- 13 – number of prestressed strands in the first row of the tension zone (from 4 to 13 pcs.);
- 2 – number of prestressed strands in the second row of the tension zone (2 or 3 pcs.), not indicated if none;
- 3 – number of prestressed strands in the compression zone (from 3 to 5 pcs.), not indicated if none.

Note: For a 9.3 mm strand, the suffix "x" is added after the quantity (e.g., 1PKE 20-7x); for a 12.5 mm strand, only the number of strands is indicated.

6. Production tolerances

The production tolerances of the products are specified in the table below, in accordance with standard EN 1168 [4], standard EN 13369 [5] and Table 10 of "Toleranser för betongelement 2020" by Svensk Betong.

Product Geometry:

- length	±12 mm
- width	±5 mm
- width (longitudinally cut slabs)	-15 mm / +5 mm
- thickness	±8 mm
- lateral curvature (full slab)	±5 mm
- angular deviation of the shape	±8 mm

Camber:

- initial vertical camber	length / 300
- horizontal camber	length / 1000
- deviation from the mean camber	±12 mm

Surface Evenness:

- smoothed surface over 0.25 m distance	±6 mm
- smoothed surface over 2 m distance	±15 mm
- bottom surface over 0.25 m distance	±4 mm
- bottom surface over 2 m distance	±9 mm

Cross-section Geometry:

- thickness of one individual web	-10 mm
- total thickness of all webs	-20 mm
- flange thickness	-10 mm / +15 mm

Strand position:

- vertical position (individual)	±15 mm
- average value in the slab	±7 mm

Openings and Recesses

- Diameter, length, and width	±10 mm
- Longitudinal and transverse position	±20 mm

Embedded Items:

- lifting loop position	±50 mm
- in plane position (longitudinal/transverse)	±20 mm
- out of plane position (level/elevation)	±5 mm

Note for groups (≥2 items):

Tolerances apply to the group; within the group, tolerances are halved.

Permissible Cracks:

Cracks are not permitted, except for longitudinal shrinkage and surface technological cracks, provided their width does not exceed:

- top surface	0.3 mm
- bottom surface	0.2 mm

7. Recommendations for Lifting, Transport, and Storage

When lifting, transporting, and storing the products, all necessary measures must be taken to prevent damage.

The products should be lifted, transported, and stored in accordance with the manufacturer's prepared schemes.

The products should be transported and stored in the design position, following the relevant transport and storage instructions.

8. Testing Requirements

The products are tested in accordance with EN 1168. [4].

9. Shop Drawings

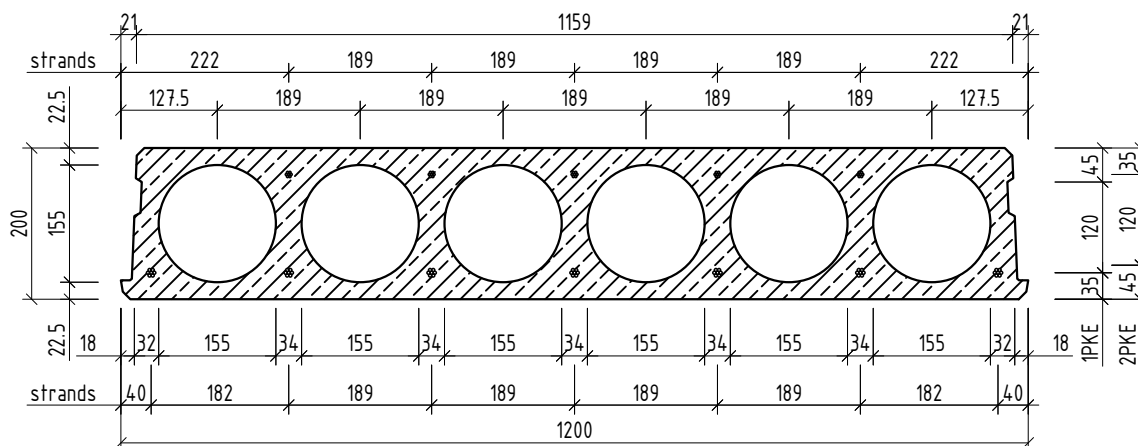
The catalogue provides specific recommendations for the representation of products in factory shop drawings and for the detailing of the drawings themselves.

10. Technical documentation

Below is various technical documentation regarding the products:

- 1.x – product cross-sections;
- 2.x – product reinforcement types;
- 3.x – longitudinal and transverse cutting possibilities;
- 4.x – layout possibilities for openings and cut-outs;
- 5.x – lifting requirements, lifting loop installation assemblies;
- 6.x – recommendations for product representation in drawings.

HCS20 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Standard:

- EN 1168

Product mass:

- 268 kg/m²
- 322 kg/m
(mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.0997 m³/m²
- 0.1196 m³/m

Joint concrete volume:

- 0.00591 m³/m²
- 0.00709 m³/m

Core concrete volume:

- 0.01572 m³/m²
- 0.01887 m³/m

Characteristic weight in the slab structure:

- product 2.83 kN/m²
- core 0.377 kN/m²
- core 0.453 kN/m

Number and arrangement of strands:

- bottom 4 - 7 pcs.
- top 0 - 4 pcs.
- for strand arrangement see other sheets

MATERIAL CHARACTERISTICS

Concrete:

- standard EN 206
- strength class C50/60
- density 2400 kg/m³

Strands:

- standard prEN 10138-3
- class Y1860S7
- mass:
d12.5 mm 0.74 kg/m
d9.3 mm 0.42 kg/m
- Cross-section area:
d12.5 mm 93.0 mm²
d9.3 mm 52.0 mm²

RECOMMENDATIONS FOR STRAND TENSIONING AND RELEASE

Bottom strands tensioning (forces):

- d12.5 mm 900 MPa (84 kN)
- d9.3 mm 1000 MPa (52 kN)

Top strands tensioning (forces):

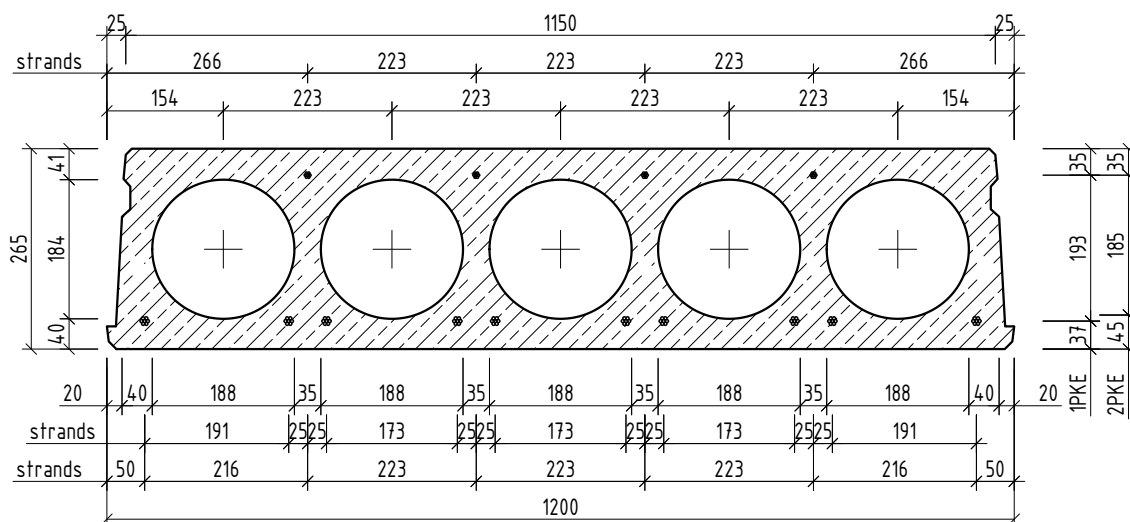
- d9.3 mm 800 MPa (42 kN)

Concrete strength at the time of strand release:

C25/30

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PKE27 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Standard:

- EN 1168

Product mass:

- 339 kg/m²
- 407 kg/m
(mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.1437 m³/m²
- 0.1725 m³/m

Joint concrete volume:

- 0.00793 m³/m²
- 0.00951 m³/m

Core concrete volume

- 0.0226 m³/m²
- 0.0272 m³/m

Characteristic weight in the slab structure:

- product 3.58 kN/m²
- core 0.543 kN/m²
- core 0.652 kN/m

Number and arrangement of strands:

- bottom 4 - 10 pcs.
- top 0 - 4 pcs.
- for strand arrangement see other sheets

MATERIAL CHARACTERISTICS

Concrete:

- standard EN 206
- strength class C50/60
- density 2400 kg/m³

Strands:

- standard prEN 10138-3
- class Y1860S7
- mass:
d12.5 mm 0.74 kg/m
d9.3 mm 0.42 kg/m
- Cross-section area:
d12.5 mm 93.0 mm²
d9.3 mm 52.0 mm²

RECOMMENDATIONS FOR STRAND TENSIONING AND RELEASE

Bottom strands tensioning (forces):

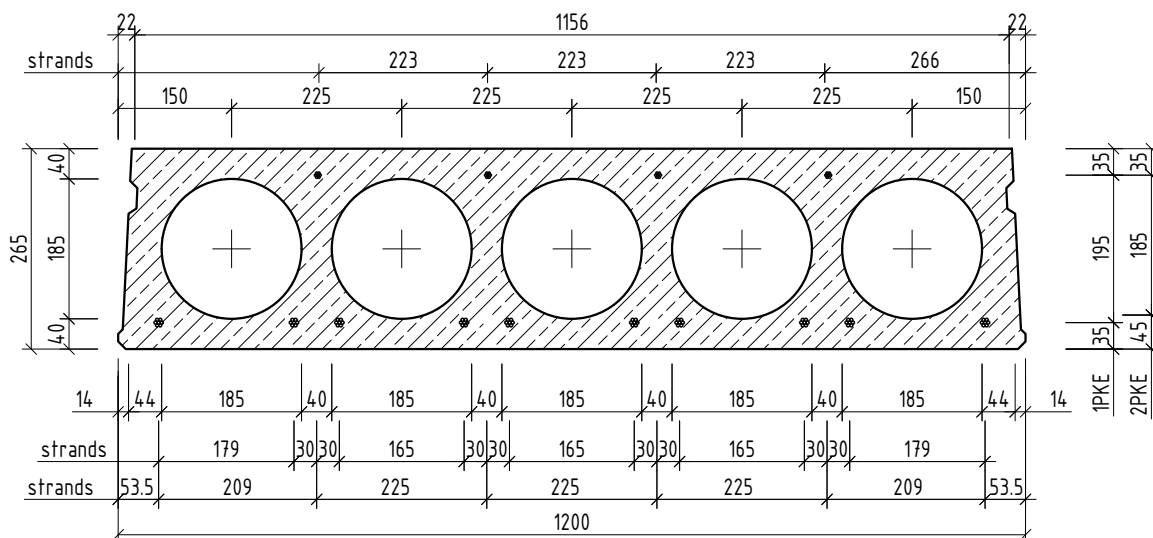
- d12.5 mm 900 MPa (84 kN)
- d9.3 mm 1000 MPa (52 kN)

Top strands tensioning (forces):

- d9.3 mm 800 MPa (42 kN)

Concrete strength at the time of strand release: C25/30

TAM27 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Standard:

- EN 1168

Product mass:

- 360 kg/m²
- 443 kg/m
(mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.1438 m³/m²
- 0.1770 m³/m

Joint concrete volume:

- 0.00541 m³/m²
- 0.00649 m³/m

Core concrete volume:

- 0.0224 m³/m²
- 0.0269 m³/m

Characteristic weight in the slab structure:

- product 3.73 kN/m²
- core 0.560 kN/m²
- core 0.673 kN/m

Number and arrangement of strands:

- bottom 4 - 10 pcs.
- top 0 - 4 pcs.
- for strand arrangement see other sheets

MATERIAL CHARACTERISTICS

Concrete:

- standard EN 206
- strength class C50/60
- density 2400 kg/m³

Strands:

- standard prEN 10138-3
- class Y1860S7
- mass:
d12.5 mm 0.74 kg/m
d9.3 mm 0.42 kg/m
- Cross-section area:
d12.5 mm 93.0 mm²
d9.3 mm 52.0 mm²

RECOMMENDATIONS FOR STRAND TENSIONING AND RELEASE

Bottom strands tensioning (forces):

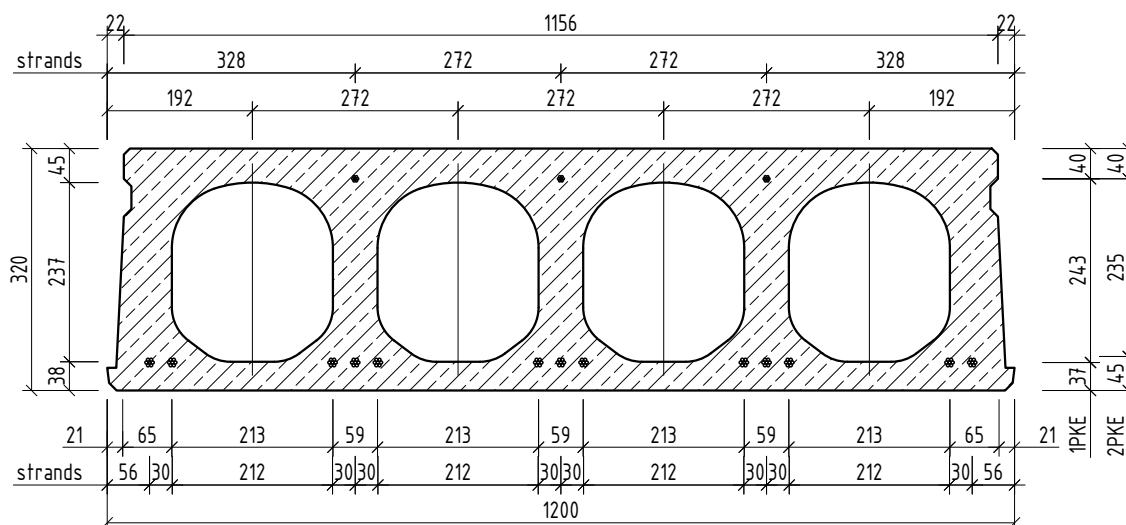
- d12.5 mm 900 MPa (84 kN)
- d9.3 mm 1000 MPa (52 kN)

Top strands tensioning (forces):

- d9.3 mm 800 MPa (42 kN)

Concrete strength at the time of strand release: C25/30

PKE32 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Standard:

- EN 1168

Product mass:

- 385 kg/m²
- 462 kg/m²
(mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.1634 m³/m²
- 0.1961 m³/m

Joint concrete volume:

- 0.00969 m³/m²
- 0.01162 m³/m

Core concrete volume:

- 0.0367 m³/m²
- 0.0440 m³/m

Characteristic weight in the slab structure:

- product 4,08 kN/m²
- core 0,880 kN/m²
- core 1,057 kN/m

Number and arrangement of strands:

- bottom 5 - 13 pcs.
- top 0 - 3 pcs.
- for strand arrangement see other sheets

MATERIAL CHARACTERISTICS

Concrete:

- standard EN 206
- strength class C50/60
- density 2400 kg/m³

Strands:

- standard prEN 10138-3
- class Y1860S7
- mass:
d12.5 mm 0.74 kg/m
d9.3 mm 0.42 kg/m
- Cross-section area:
d12.5 mm 93.0 mm²
d9.3 mm 52.0 mm²

RECOMMENDATIONS FOR STRAND TENSIONING AND RELEASE

Bottom strands tensioning (forces):

- d12.5 mm 900 MPa (84 kN)
- d9.3 mm 1000 MPa (52 kN)

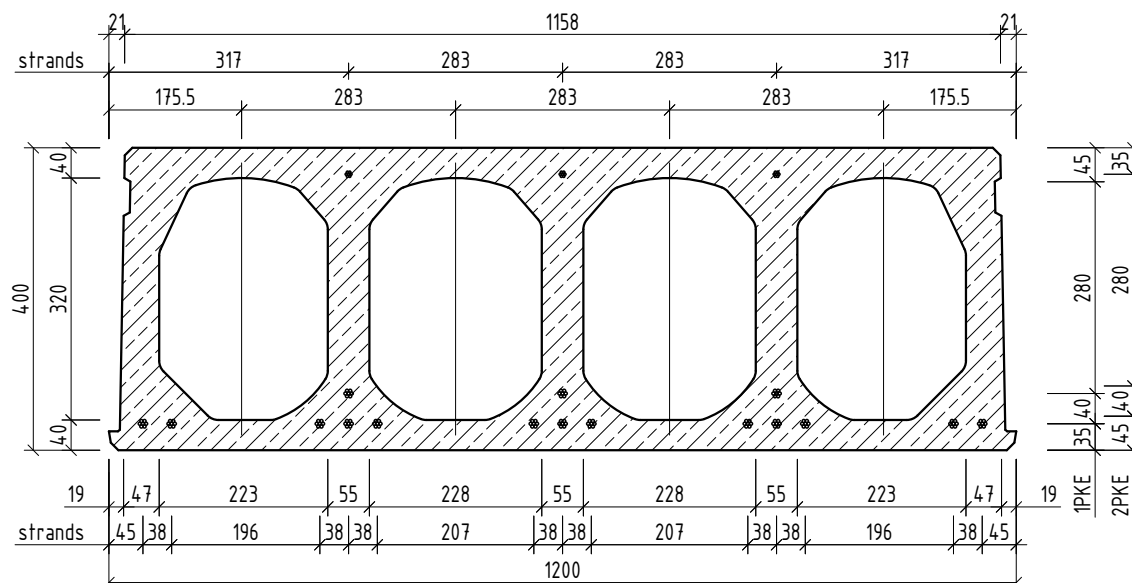
Top strands tensioning (forces):

- d9.3 mm 800 MPa (42 kN)

Concrete strength at the time of strand release:

C25/30

HCS40 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Standard:

- EN 1168

Product mass:

- 447 kg/m²
- 536 kg/m
(mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.173 m³/m²
- 0.208 m³/m

Joint concrete volume:

- 0.01182 m³/m²
- 0.01419 m³/m

Core concrete volume:

- 0.0537 m³/m²
- 0.0645 m³/m

Characteristic weight in the slab structure:

- product 4.76 kN/m²
- core 1.290 kN/m²
- core 1.548 kN/m

Number and arrangement of the strands:

- bottom 5 - 13+3 pcs.
- top 0 - 3 pcs.
- for strand arrangement see other sheets

MATERIAL CHARACTERISTICS

Concrete:

- standard EN 206
- strength class C50/60
- density 2400 kg/m³

Strands:

- standard prEN 10138-3
- class Y1860S7
- mass:
d12.5 mm 0.74 kg/m
d9.3 mm 0.42 kg/m
- Cross-section area:
d12.5 mm 93.0 mm²
d9.3 mm 52.0 mm²

RECOMMENDATIONS FOR STRAND TENSIONING AND RELEASE

Bottom strands tensioning (forces):

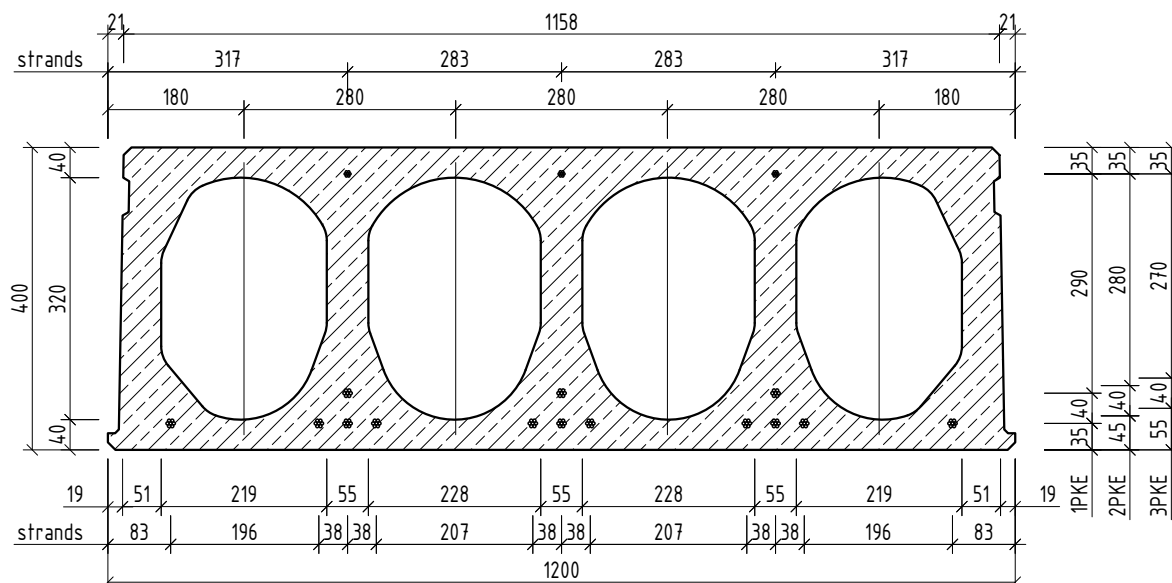
- d12.5 mm 900 MPa (84 kN)
- d9.3 mm 1000 MPa (52 kN)

Top strands tensioning (forces):

- d9.3 mm 800 MPa (42 kN)

Concrete strength at the time of strand release: C25/30

TAM40 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Standard:

- EN 1168

Product mass:

- 473 kg/m²
- 567 kg/m
- (mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.1890 m³/m²
- 0.2268 m³/m

Joint concrete volume:

- 0.01183 m³/m²
- 0.01419 m³/m

Core concrete volume:

- 0.0498 m³/m²
- 0.0597 m³/m

Characteristic weight in the slab structure:

- product 5.02 kN/m²
- core 1.245 kN/m²
- core 1.493 kN/m

Number and arrangement of strands:

- bottom 5 - 11+3 pcs.
- top 0 - 3 pcs.
- for strand arrangement see other sheets

MATERIAL CHARACTERISTICS

Concrete:

- standard EN 206
- strength class C50/60
- density 2400 kg/m³

Strands:

- standard prEN 10138-3
- class Y1860S7
- mass:
 - d12.5 mm 0.74 kg/m
 - d9.3 mm 0.42 kg/m
- Cross-section area:
 - d12.5 mm 93.0 mm²
 - d9.3 mm 52.0 mm²

RECOMMENDATIONS FOR STRAND TENSIONING AND RELEASE

Bottom strands tensioning (forces):

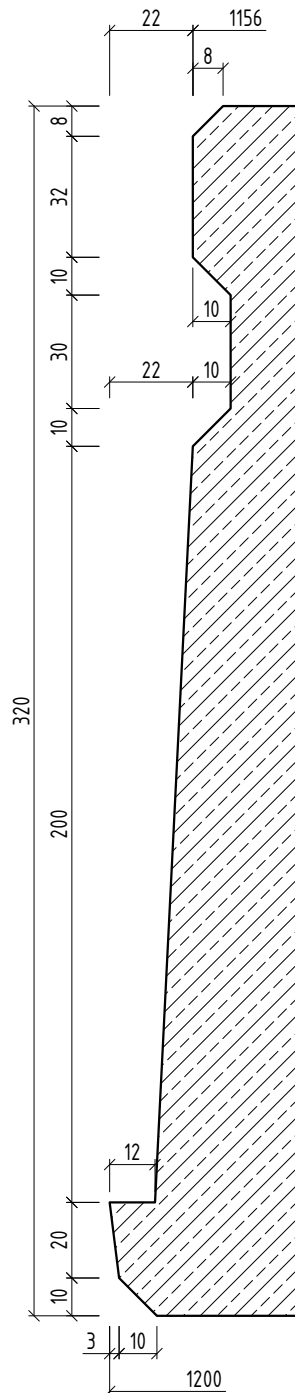
- d12.5 mm 900 MPa (84 kN)
- d9.3 mm 1000 MPa (52 kN)

Top strands tensioning (forces):

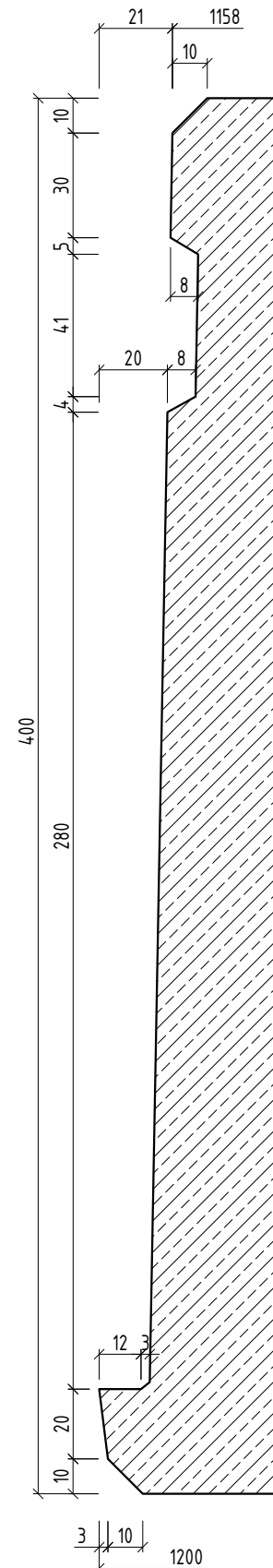
- d9.3 mm 800 MPa (42 kN)

Concrete strength at the time of strand release: C25/30

PKE 32 (M 1:2)



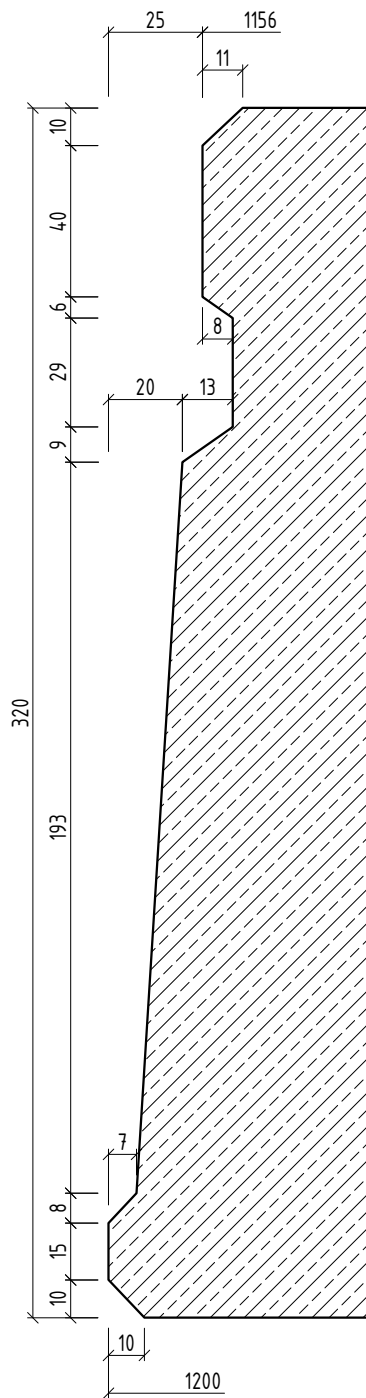
HCS 40 (M 1:2)



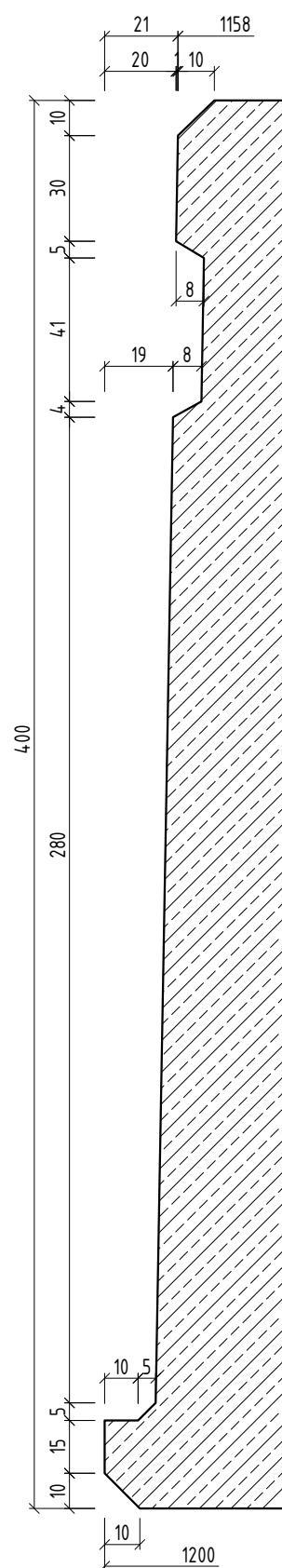
NOTE:

- the geometry of the product cross-section sides may vary slightly, depending on the manufacturing technology.

TAM 32 (M 1:2)

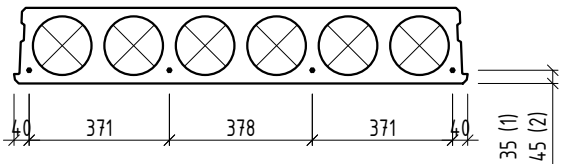
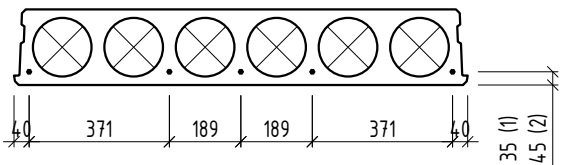
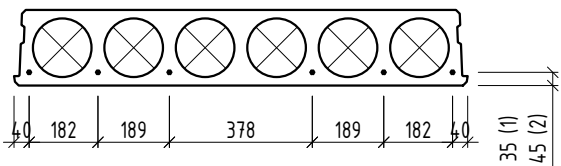
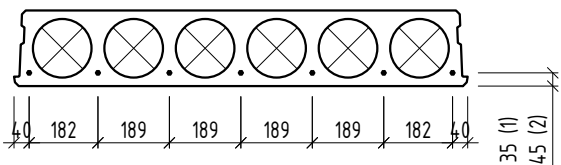


TAM 40 (M 1:2)



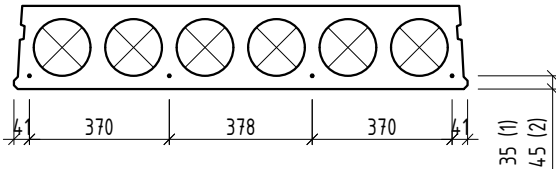
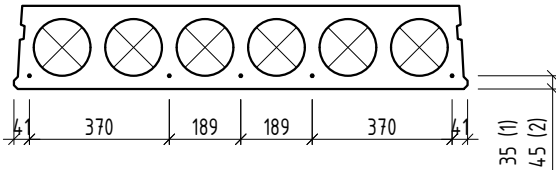
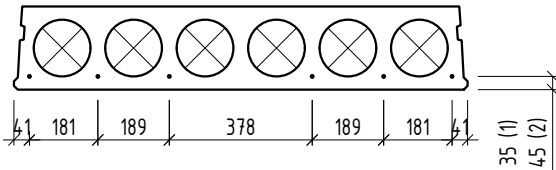
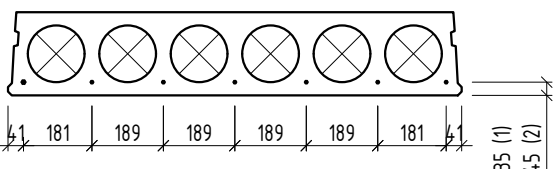
NOTE:

- the geometry of the product cross-section sides may vary slightly, depending on the manufacturing technology.

CROSS-SECTION	STRANDS	MARKING
	4 pcs. 9,3 mm	1PKE 20-4x 2PKE 20-4x
	5 pcs. 9,3/12,5 mm	1PKE 20-5x 2PKE 20-5x
	6 pcs. 9,3/12,5 mm	1PKE 20-6x 2PKE 20-6x
	7 pcs. 9,3/12,5 mm	1PKE 20-7x 2PKE 20-7x

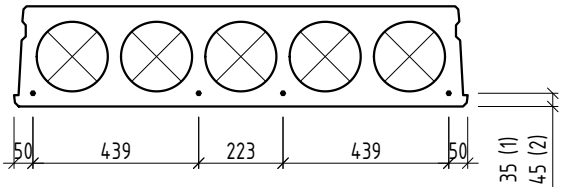
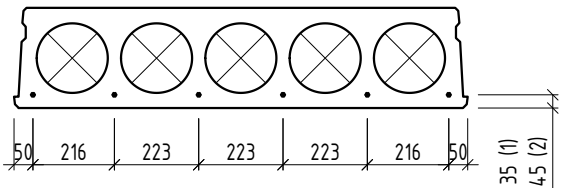
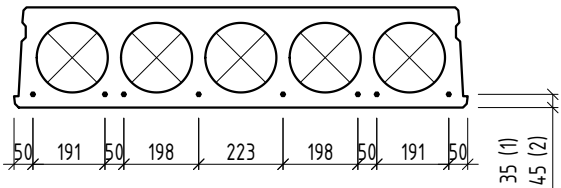
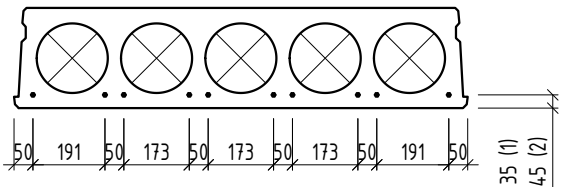
NOTES:

1. Top strands are designed when needed and are usually not added.
2. The arrangement of the top strands is given on a separate sheet.
3. Longitudinally cut elements must be reinforced with 7 strands.

CROSS-SECTION	STRANDS	MARKING
	4 pcs. 9,3 mm	1PKE 22-4x 2PKE 22-4x
	5 pcs. 9,3/12,5 mm	1PKE 22-5x 2PKE 22-5x
	6 pcs. 9,3/12,5 mm	1PKE 22-6x 2PKE 22-6x
	7 pcs. 9,3/12,5 mm	1PKE 22-7x 2PKE 22-7x

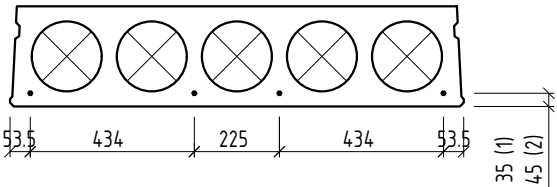
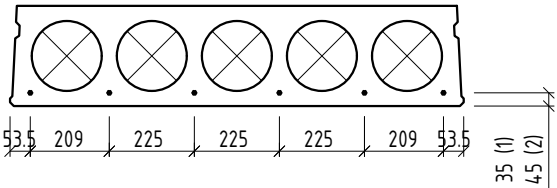
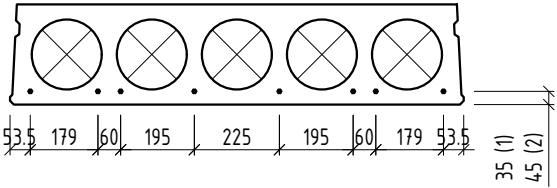
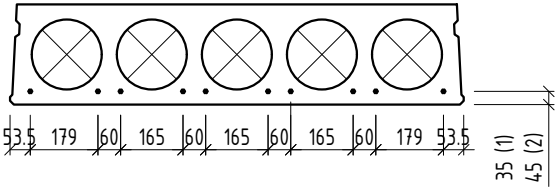
NOTES:

- Top strands are designed when needed and are usually not added.
- The arrangement of the top strands is given on a separate sheet.
- Longitudinally cut elements must be reinforced with 7 strands.

CROSS-SECTION	STRANDS	MARKING
	4 pcs. 9,3/12,5 mm	1PKE 27-4x 2PKE 27-4x
		1PKE 27-4 2PKE 27-4
	6 pcs. 9,3/12,5 mm	1PKE 27-6x 2PKE 27-6x
		1PKE 27-6 2PKE 27-6
	8 pcs. 9,3/12,5 mm	1PKE 27-8x 2PKE 27-8x
		1PKE 27-8 2PKE 27-8
	10 pcs. 12,5 mm	1PKE 27-10 2PKE 27-10

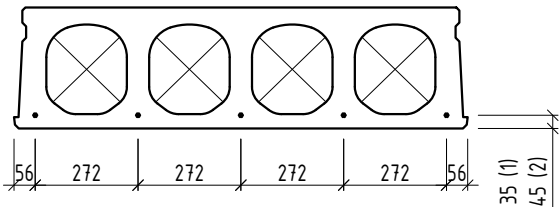
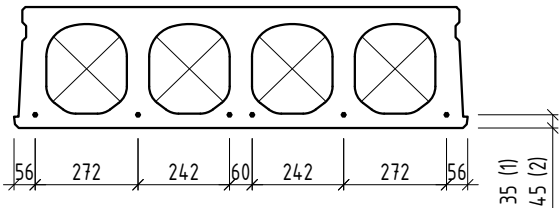
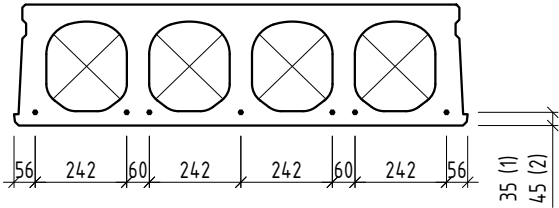
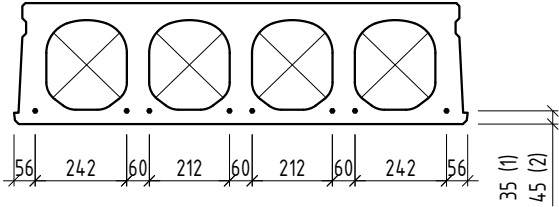
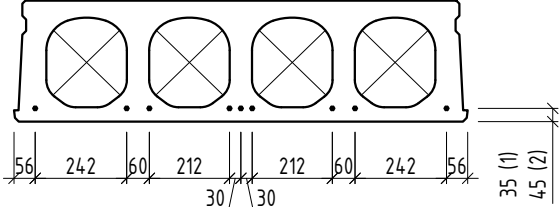
NOTES:

1. Top strands are designed when needed and are usually not added.
2. The arrangement of the top strands is given on a separate sheet.
3. Longitudinally cut elements must be reinforced with 6 strands.

CROSS-SECTION	STRANDS	MARKING
	4 pcs. 9,3/12,5 mm	1PKE 27-4x 2PKE 27-4x
		1PKE 27-4 2PKE 27-4
	6 pcs. 9,3/12,5 mm	1PKE 27-6x 2PKE 27-6x
		1PKE 27-6 2PKE 27-6
	8 pcs. 9,3/12,5 mm	1PKE 27-8x 2PKE 27-8x
		1PKE 27-8 2PKE 27-8
	10 pcs. 12,5 mm	1PKE 27-10 2PKE 27-10

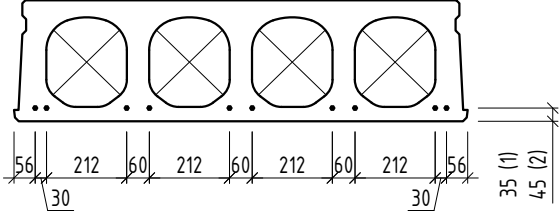
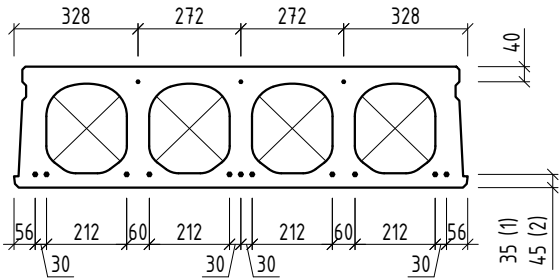
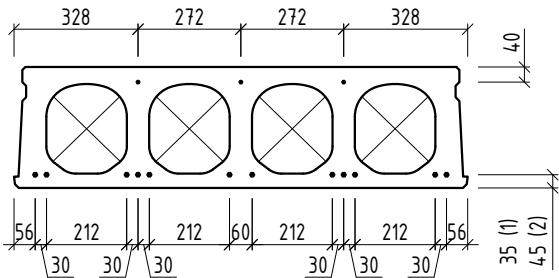
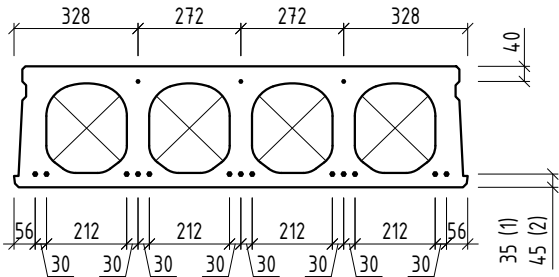
NOTES:

1. Top strands are designed when needed and are usually not added.
2. The arrangement of the top strands is given on a separate sheet.
3. Longitudinally cut elements must be reinforced with 6 strands.

CROSS-SECTION	STRANDS	MARKING
	5 pcs. 9,3/12,5 mm	1PKE 32-5x 2PKE 32-5x
		1PKE 32-5 2PKE 32-5
	6 pcs. 9,3/12,5 mm	1PKE 32-6x 2PKE 32-6x
		1PKE 32-6 2PKE 32-6
	7 pcs. 9,3/12,5 mm	1PKE 32-7x 2PKE 32-7x
		1PKE 32-7 2PKE 32-7
	8 pcs. 12,5 mm	1PKE 32-8 2PKE 32-8
	9 pcs. 12,5 mm	1PKE 32-9 2PKE 32-9

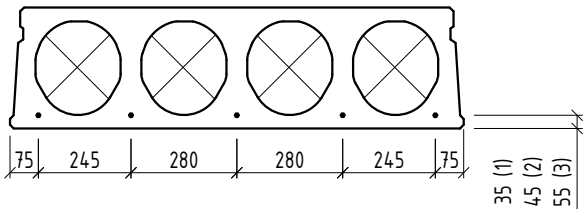
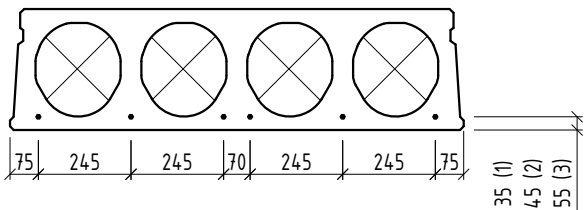
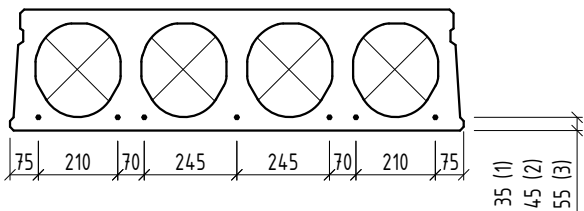
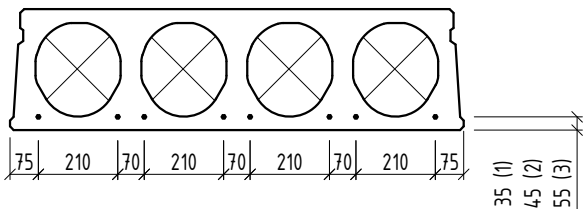
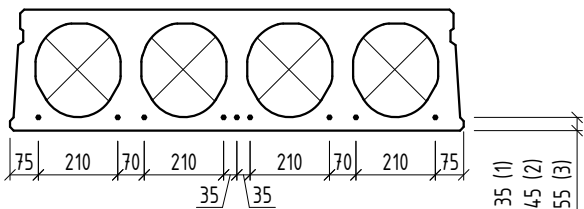
NOTES:

- Top strands are designed when needed and are usually not added.
- The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING
	10 pcs. 12,5 mm	1PKE 32-10 2PKE 32-10
	Top: 3 pcs. 9,3 mm Bottom: 11 pcs. 12,5 mm	1PKE 32-11/3x 2PKE 32-11/3x
	Top: 3 pcs. 9,3 mm Bottom: 12 pcs. 12,5 mm	1PKE 32-12/3x 2PKE 32-12/3x
	Top: 3 pcs. 9,3 mm Bottom: 12 pcs. 12,5 mm	1PKE 32-13/3x 2PKE 32-13/3x

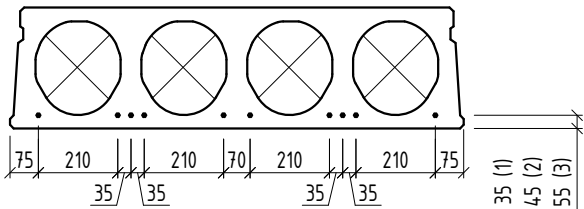
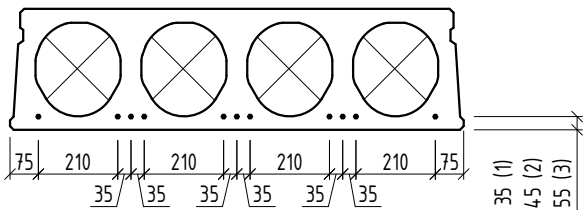
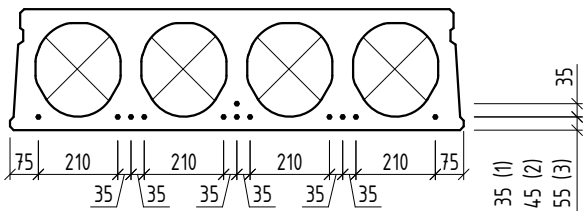
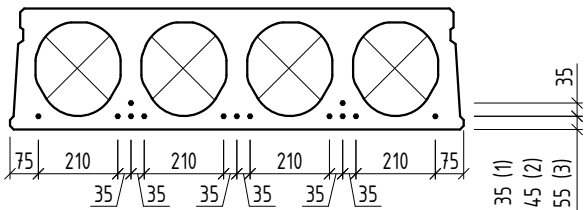
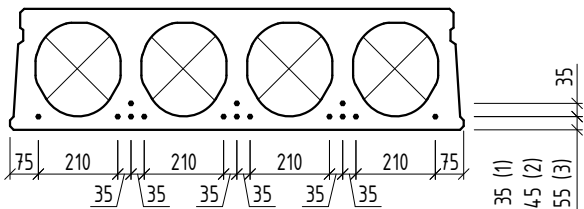
NOTES:

- Top strands are designed when needed and are usually not added.
- Slabs with 11 or more strands are always reinforced with 3 d9.3 mm top strands
- The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING	
	5 pcs. 9,3/12,5 mm	1PKE 32-5x 2PKE 32-5x 3PKE 32-5x	1PKE 32-5 2PKE 32-5 3PKE 32-5
	6 pcs. 9,3/12,5 mm	1PKE 32-6x 2PKE 32-6x 3PKE 32-6x	1PKE 32-6 2PKE 32-6 3PKE 32-6
	7 pcs. 9,3/12,5 mm	1PKE 32-7x 2PKE 32-7x 3PKE 32-7x	1PKE 32-7 2PKE 32-7 3PKE 32-7
	8 pcs. 12,5 mm	1PKE 32-8 2PKE 32-8 3PKE 32-8	
	9 pcs. 12,5 mm	1PKE 32-9 2PKE 32-9 3PKE 32-9	

NOTES:

- Top strands are designed when needed and are usually not added.
- The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING
	10 pcs. 12,5 mm	1PKE 32-10 2PKE 32-10 3PKE 32-10
	11 pcs. 12,5 mm	1PKE 32-11 2PKE 32-11 3PKE 32-11
	11+1 pcs. 12,5 mm	1PKE 32-11-1 2PKE 32-11-1 3PKE 32-11-1
	11+2 pcs. 12,5 mm	1PKE 32-11-2 2PKE 32-11-2 3PKE 32-11-2
	11+3 pcs. 12,5 mm	1PKE 32-11-3 2PKE 32-11-3 3PKE 32-11-3

NOTES:

- Top strands are designed when needed and are usually not added.
- The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING
	Top: 3 pcs. 9,3 mm	1PKE 40-5x/3x 2PKE 40-5x/3x
	Bottom: 5 pcs. 9,3/12,5 mm	1PKE 40-5/3x 2PKE 40-5/3x
	Top: 3 pcs. 9,3 mm	1PKE 40-6/3x 2PKE 40-6/3x
	Bottom: 6 pcs. 12,5 mm	
	Top: 3 pcs. 9,3 mm	1PKE 40-7/3x 2PKE 40-7/3x
	Bottom: 7 pcs. 12,5 mm	
	Top: 3 pcs. 9,3 mm	1PKE 40-8/3x 2PKE 40-8/3x
	Bottom: 8 pcs. 12,5 mm	

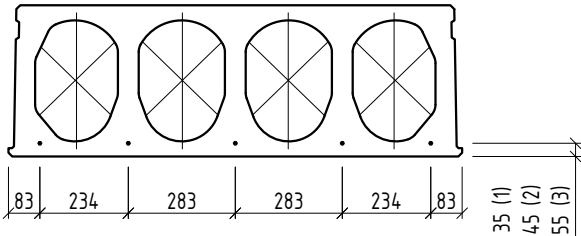
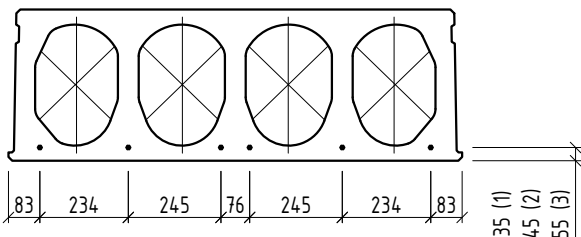
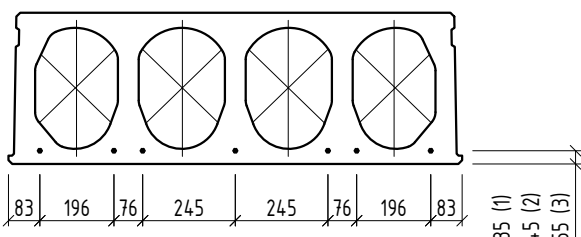
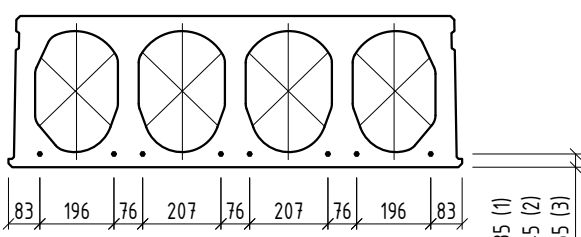
NOTE: top strands are always designed.

CROSS-SECTION	STRANDS	MARKING
	Top: 3 pcs. 9,3 mm Bottom: 9 pcs. 12,5 mm	1PKE 40-9/3x 2PKE 40-9/3x
	Top: 3 pcs. 9,3 mm Bottom: 10 pcs. 12,5 mm	1PKE 40-10/3x 2PKE 40-10/3x
	Top: 3 pcs. 9,3 mm Bottom: 11 pcs. 12,5 mm	1PKE 40-11/3x 2PKE 40-11/3x
	Top: 3 pcs. 9,3 mm Bottom: 12 pcs. 12,5 mm	1PKE 40-12/3x 2PKE 40-12/3x

NOTE: top strands are always designed.

CROSS-SECTION	STRANDS	MARKING
	Top: 3 pcs. 9,3 mm	1PKE 40-13/3x 2PKE 40-13/3x
	Bottom: 13 pcs. 12,5 mm	
	Top: 3 pcs. 9,3 mm	1PKE 40-13-2/3x 2PKE 40-13-2/3x
	Bottom: 13+2 pcs. 12,5 mm	
	Top: 3 pcs. 9,3 mm	1PKE 40-13-3/3x 2PKE 40-13-3/3x
	Bottom: 13+3 pcs. 12,5 mm	

NOTE: top strands are always designed.

CROSS-SECTION	STRANDS	MARKING
	5 pcs. 9,3/12,5 mm	1PKE 40-5x 2PKE 40-5x 3PKE 40-5x
		1PKE 40-5 2PKE 40-5 3PKE 40-5
	6 pcs. 12,5 mm	1PKE 40-6 2PKE 40-6 3PKE 40-6
	7 pcs. 12,5 mm	1PKE 40-7 2PKE 40-7 3PKE 40-7
	8 pcs. 12,5 mm	1PKE 40-8 2PKE 40-8 3PKE 40-8

NOTES:

1. Top strands are designed when needed and are usually not added.
2. The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING
	9 pcs. 12,5 mm	1PKE 40-9 2PKE 40-9 3PKE 40-9
	10 pcs. 12,5 mm	1PKE 40-10 2PKE 40-10 3PKE 40-10
	11 pcs. 12,5 mm	1PKE 40-11 2PKE 40-11 3PKE 40-11
	11+1 pcs. 12,5 mm	1PKE 40-11-1 2PKE 40-11-1 3PKE 40-11-1

NOTES:

- Top strands are designed when needed and are usually not added.
- The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING
	11+2 pcs. 12,5 mm	1PKE 40-11-2 2PKE 40-11-2 3PKE 40-11-2
	11+3 pcs. 12,5 mm	1PKE 40-11-3 2PKE 40-11-3 3PKE 40-11-3

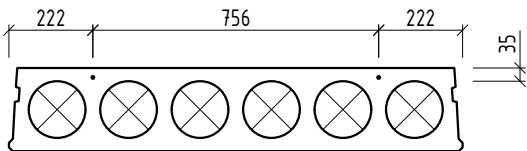
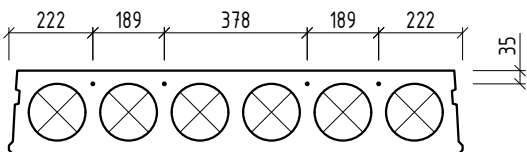
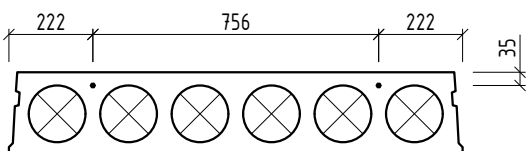
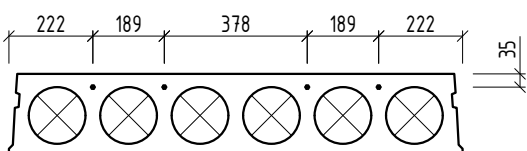
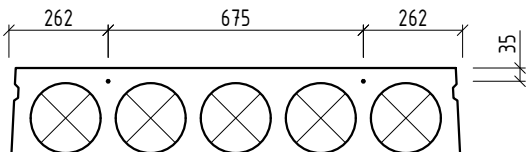
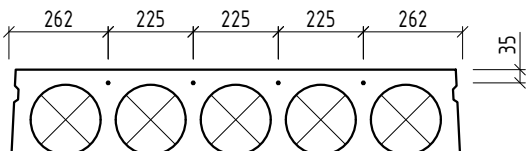
NOTES:

1. Top strands are designed when needed and are usually not added.
2. The arrangement of the top strands is given on a separate sheet.

CROSS-SECTION	STRANDS	MARKING
	3 pcs. 9,3 mm	1PKE 20-.../3x 2PKE 20-.../3x
	5 pcs. 9,3 mm	1PKE 20-.../5x 2PKE 20-.../5x
	2 pcs. 9,3 mm	1PKE 27-.../2x 2PKE 27-.../2x
	4 pcs. 9,3 mm	1PKE 27-.../4x 2PKE 27-.../4x
	2 pcs. 9,3 mm	1PKE 32-.../2x 2PKE 32-.../2x
	3 pcs. 9,3 mm	1PKE 32-.../3x 2PKE 32-.../3x

NOTES:

- Top strands are designed when needed and are usually not added.
- In the marking, the symbol "..." is replaced with the number of bottom strands taken from the previous sheets.
- For HCS profiles, the position of the top strands is linked to the bottom strands.

CROSS-SECTION	STRANDS	MARKING
	2 pcs. 9,3 mm	1PKE 22-.../2x 2PKE 22-.../2x
	4 pcs. 9,3 mm	1PKE 22-.../4x 2PKE 22-.../4x
	2 pcs. 12,5 mm	1PKE 22-.../2 2PKE 22-.../2
	4 pcs. 12,5 mm	1PKE 22-.../4 2PKE 22-.../4
	2 pcs. 9,3 mm	1PKE 27-.../2x 2PKE 27-.../2x
	4 pcs. 9,3 mm	1PKE 27-.../4x 2PKE 27-.../4x

NOTES:

- Top strands are designed when needed and are usually not added.
- In the marking, the symbol "..." is replaced with the number of bottom strands taken from the previous sheets.

CROSS-SECTION	STRANDS	MARKING
	2 pcs. 12,5 mm	1PKE 27-.../2 2PKE 27-.../2
	4 pcs. 12,5 mm	1PKE 27-.../4 2PKE 27-.../4
	2 pcs. 9,3 mm	1PKE 32-.../2x 2PKE 32-.../2x 3PKE 32-.../2x
	3 pcs. 9,3 mm	1PKE 32-.../3x 2PKE 32-.../3x 3PKE 32-.../3x
	3 pcs. 12,5 mm	1PKE 32-.../2 2PKE 32-.../2 3PKE 32-.../2
	3 pcs. 12,5 mm	1PKE 32-.../3 2PKE 32-.../3 3PKE 32-.../3

NOTES:

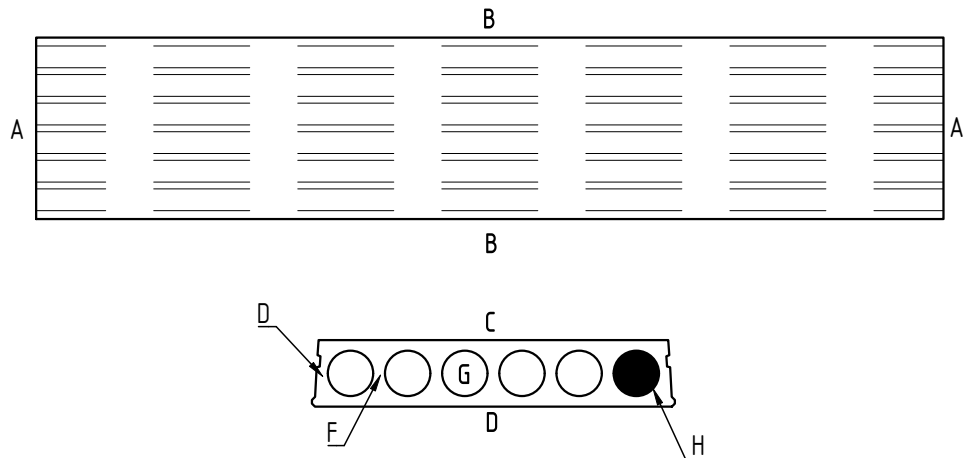
- Top strands are designed when needed and are usually not added.
- In the marking, the symbol "..." is replaced with the number of bottom strands taken from the previous sheets.

CROSS-SECTION	STRANDS	MARKING
	2 pcs. 9,3 mm	1PKE 40-.../2x 2PKE 40-.../2x 3PKE 40-.../2x
	3 pcs. 9,3 mm	1PKE 40-.../3x 2PKE 40-.../3x 3PKE 40-.../3x
	2 pcs. 9,3 mm	1PKE 40-.../2 2PKE 40-.../2 3PKE 40-.../2
	3 pcs. 9,3 mm	1PKE 40-.../3 2PKE 40-.../3 3PKE 40-.../3

NOTES:

- Top strands are designed when needed and are usually not added.
- In the marking, the symbol "..." is replaced with the number of bottom strands taken from the previous sheets.
- For HCS profiles, the position of the top strands is linked to the bottom strands (Position 1 is 45 mm from the top). For TAM profiles, the top strands are always located at a fixed distance of 35 mm from the top surface.

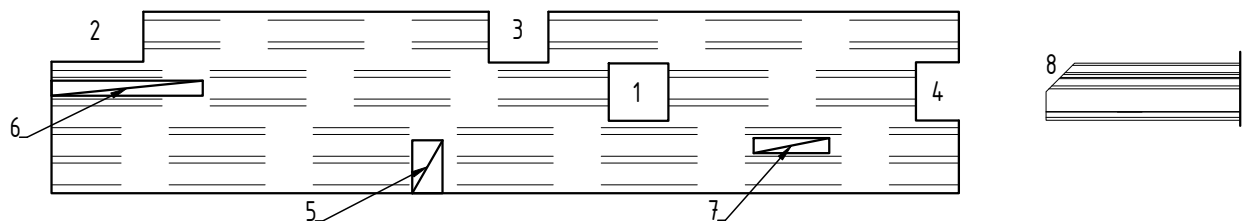
TERMINOLOGY OF SLAB PARTS



- A. Galiniai kraštai (galai)
- B. Šoniniai kraštai (šonai)
- C. Viršutinė lentyna (viršus)
- D. Apatinė lentyna (apačia)
- E. Kraštinis tiltelis
- F. Vidurinis tiltelis
- G. Kiaurymė
- H. Užpildas (užpildyta betonu kiaurymė ar jos dalis)

- A. End edges (Ends)
- B. Side edges (Sides)
- C. Upper flange (Top)
- D. Lower flange (Bottom)
- E. Outermost web
- F. Intermediate web
- G. Core
- H. Filling (Core or part of it filled with concrete)

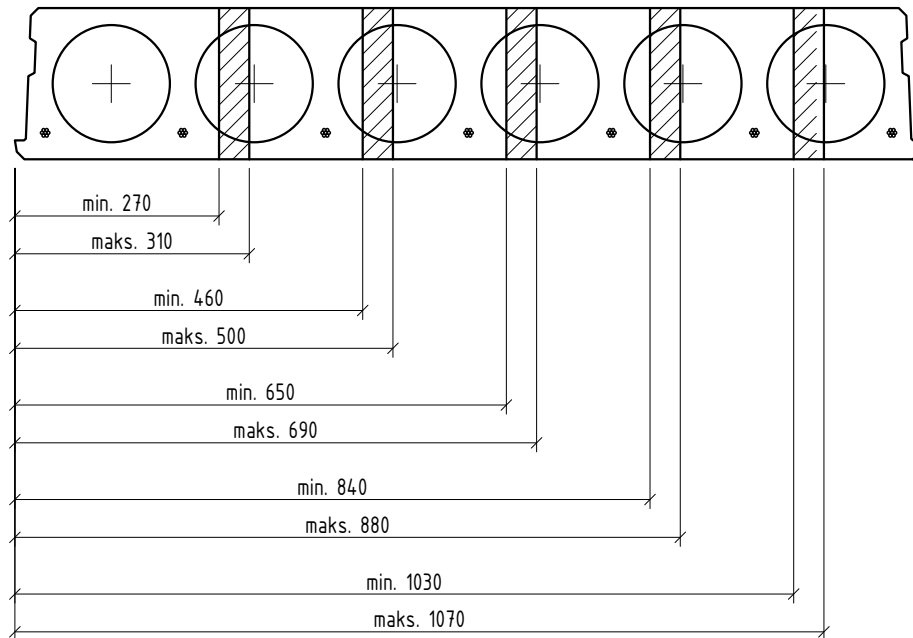
TERMINOLOGY OF CAVITIES FORMED IN SLABS



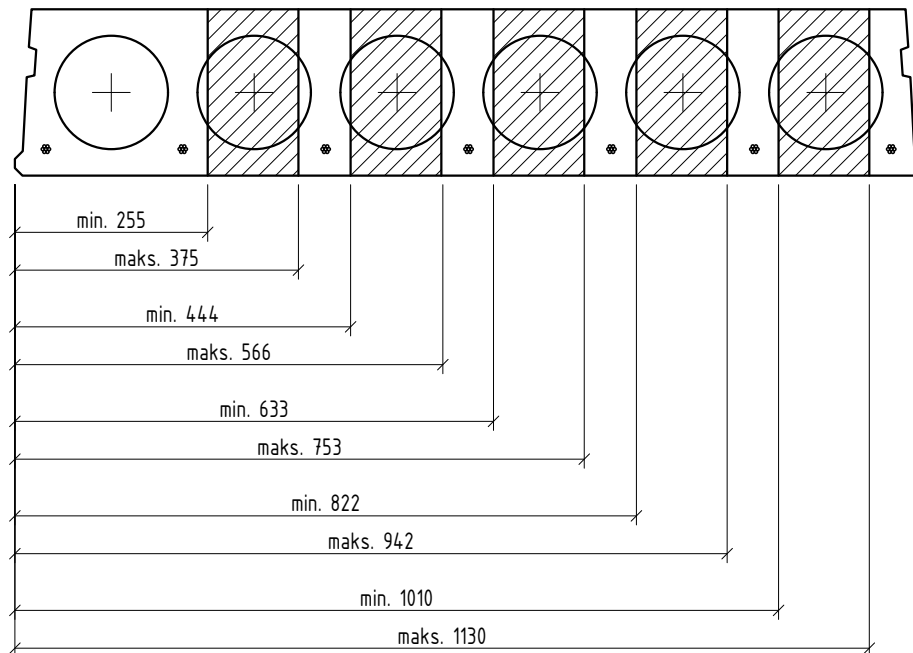
- 1. Anga
 - 2. Kampinė išpjova
 - 3. Šoninė išpjova
 - 4. Galinė išpjova
 - 5. Šoninė išėma (dažniausiai skirta inkaravimui)
 - 6. Galinė išėma (dažniausiai skirta inkaravimui)
 - 7. Niša (dažniausiai skirta kiaurymės užpildymui betonu)
 - 8. Nuopjova (dažniausiai įrengiama tik galuose)
- Bendruoju atveju - ertmės*

- 1. Opening
 - 2. Corner cut-out
 - 3. Side cut-out
 - 4. End cut-out
 - 5. Side recess (typically for anchoring)
 - 6. End recess (typically for anchoring)
 - 7. Pocket (typically for concrete filling)
 - 8. Chamfer (typically provided only at the ends)
- In the general case - Cavities*

200 HEIGHT SLAB LONGITUDINAL CUTTING OPTIONS (M 1:10)



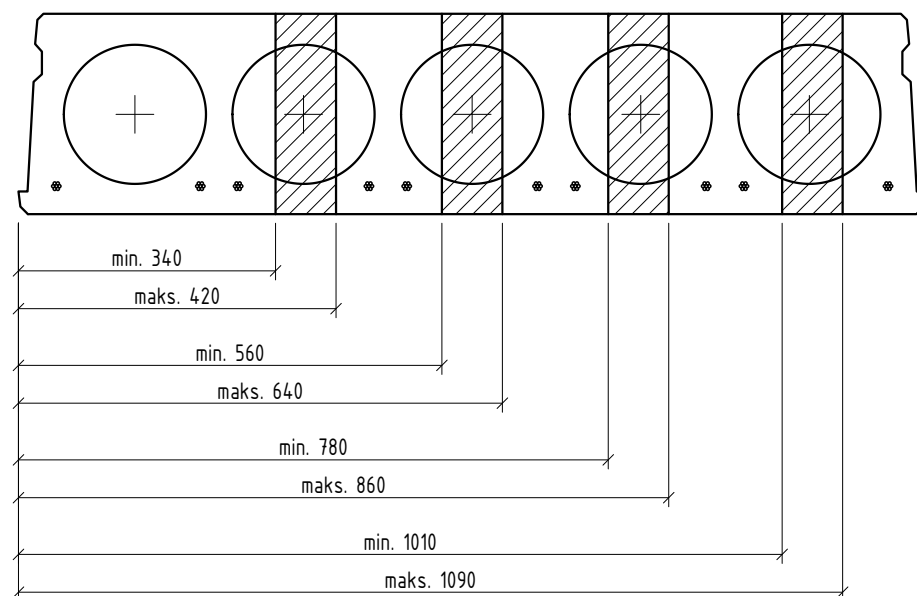
220 HEIGHT SLAB LONGITUDINAL CUTTING OPTIONS (M 1:10)



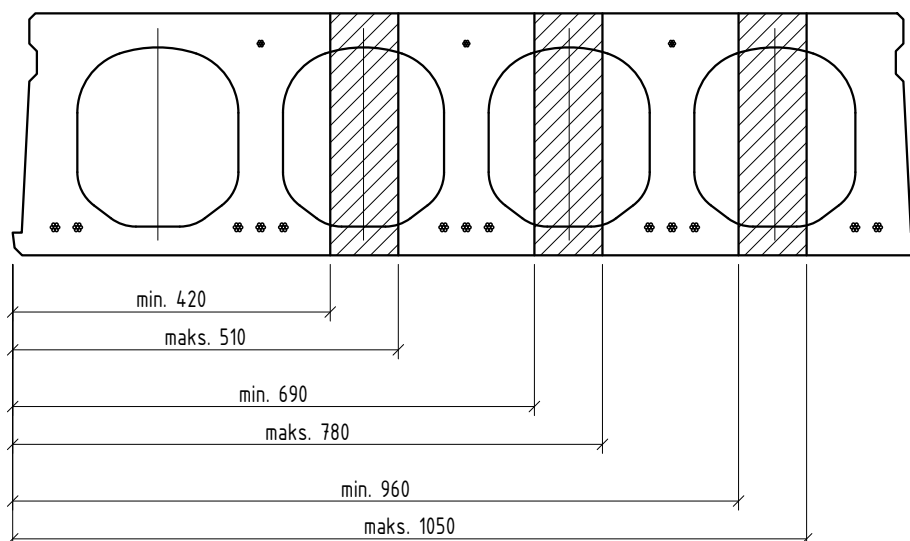
NOTES:

1. For width tolerance, see the explanatory note.
2. It is recommended to maintain symmetrical reinforcement for units cut longitudinally.

265 HEIGHT SLAB LONGITUDINAL CUTTING OPTIONS (M 1:10)



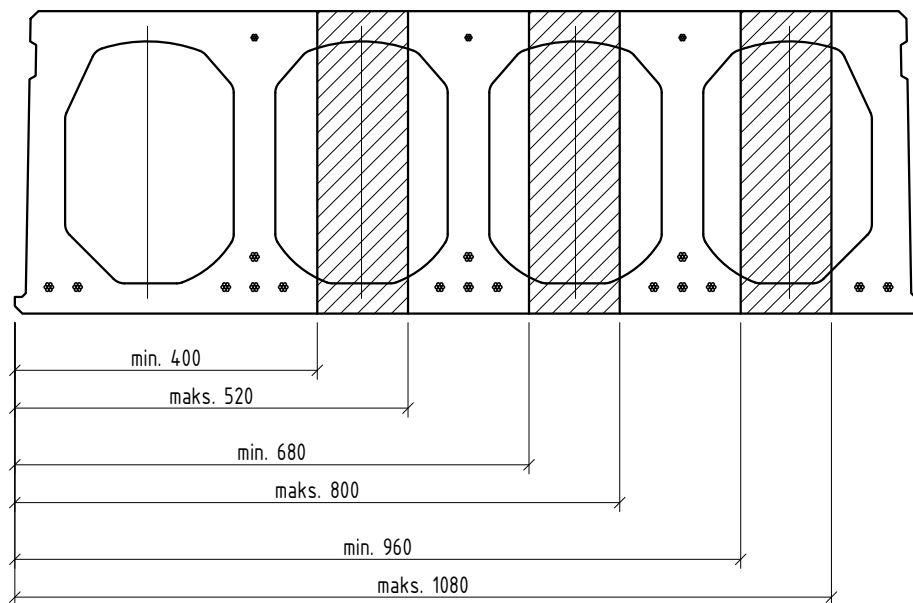
320 HEIGHT SLAB LONGITUDINAL CUTTING OPTIONS (M 1:10)



NOTES:

1. For width tolerance, see the explanatory note.
2. It is recommended to maintain symmetrical reinforcement for units cut longitudinally.

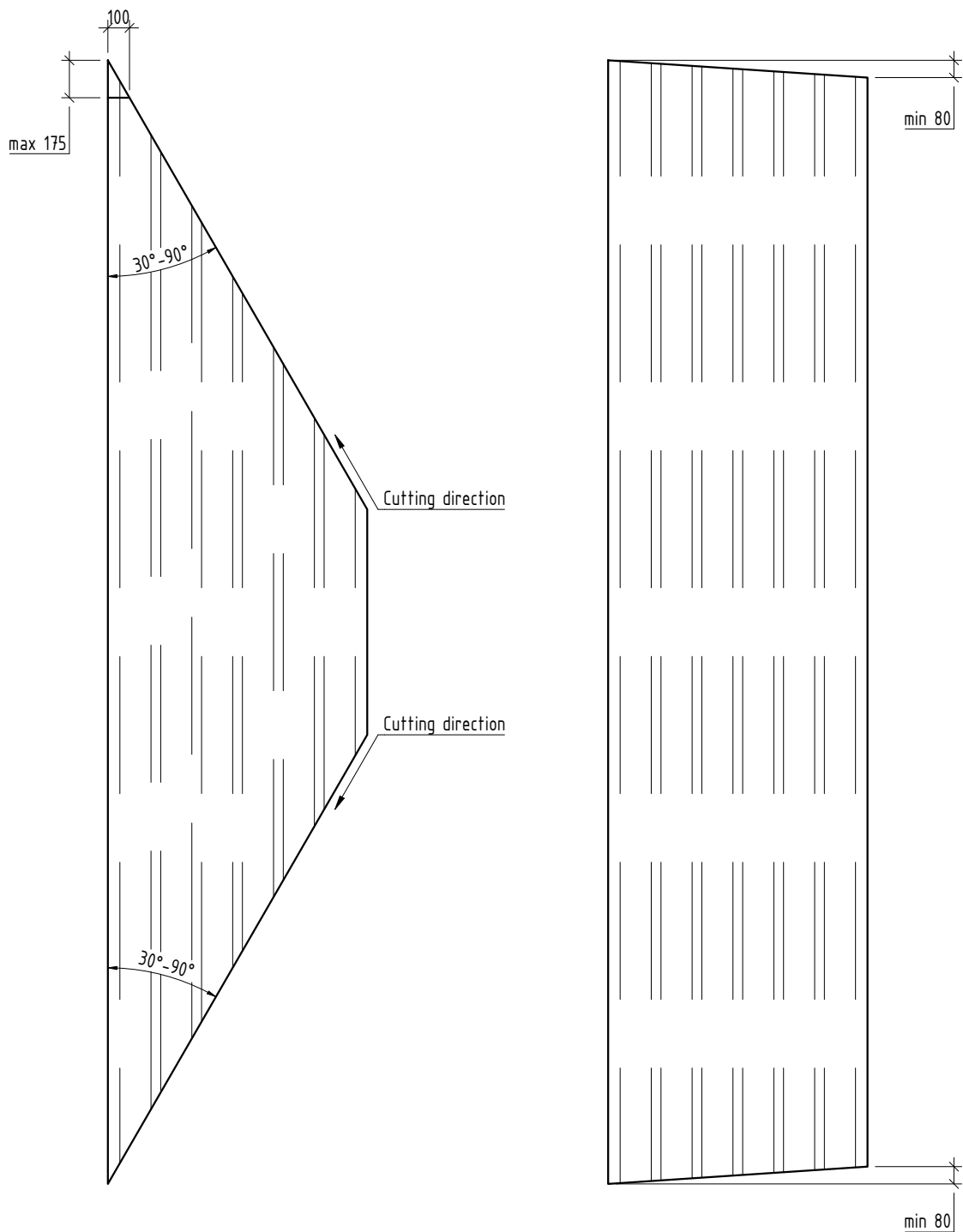
400 HEIGHT SLAB LONGITUDINAL CUTTING OPTIONS (M 1:10)



NOTES:

1. For width tolerance, see the explanatory note.
2. It is recommended to maintain symmetrical reinforcement for units cut longitudinally.

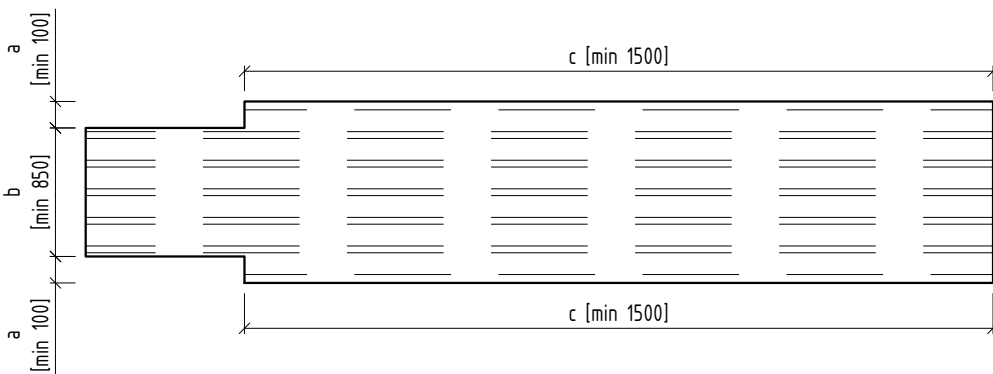
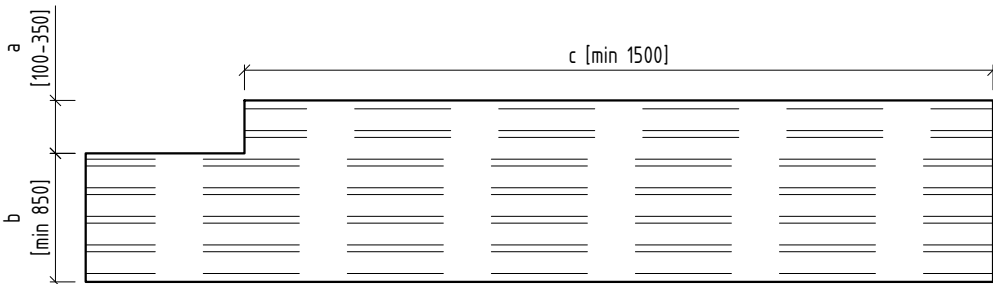
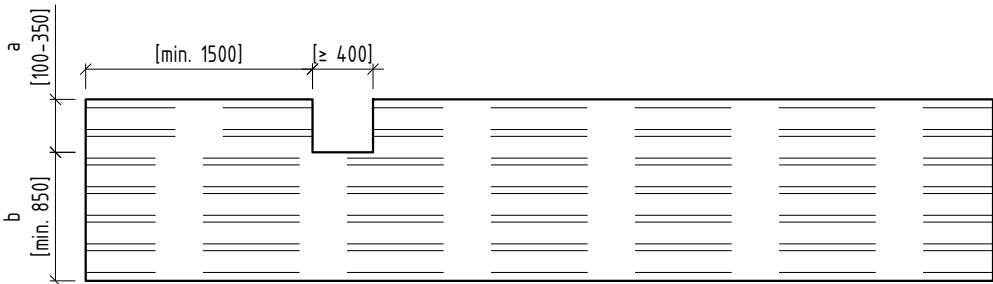
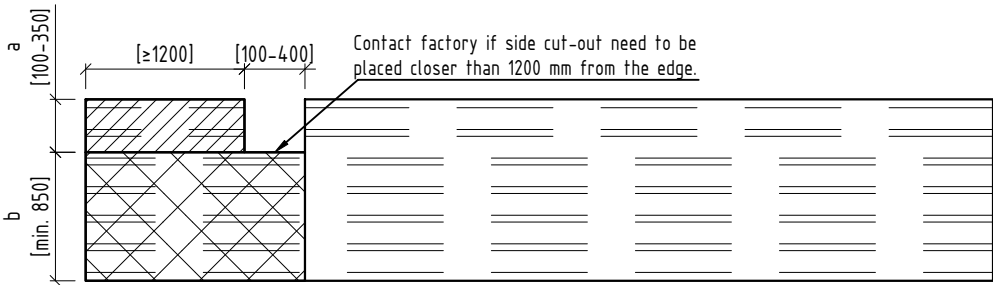
CUTTING ANGLES DIAGRAM (M 1:30)



NOTES:

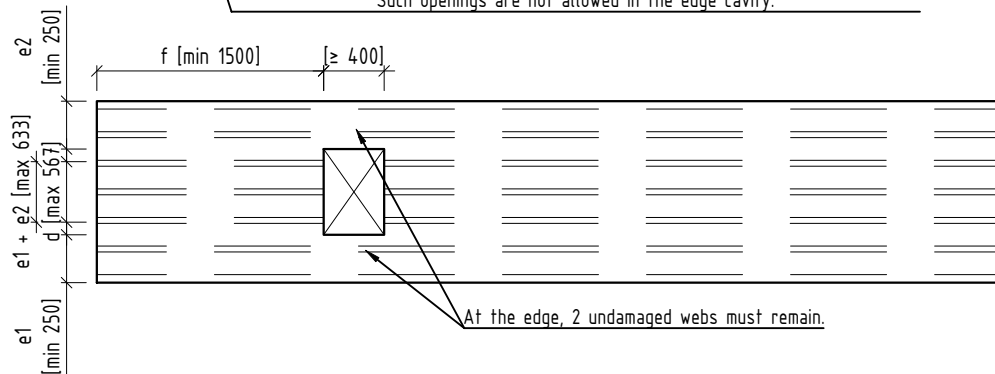
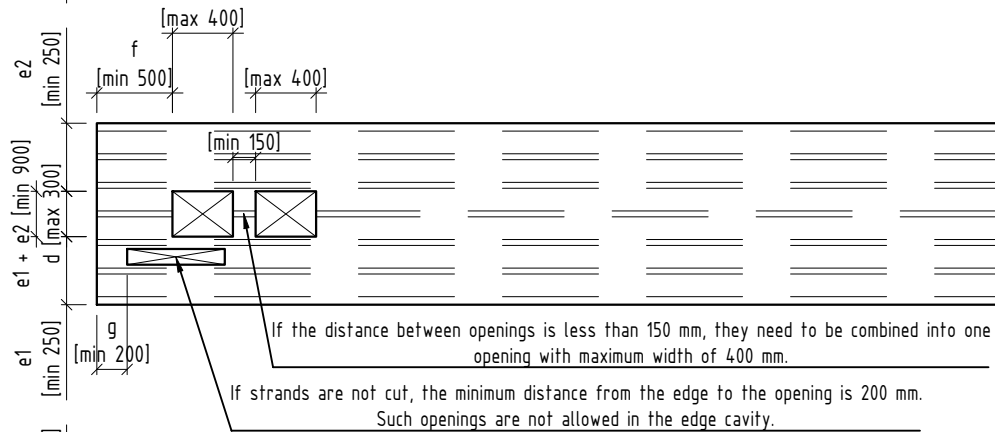
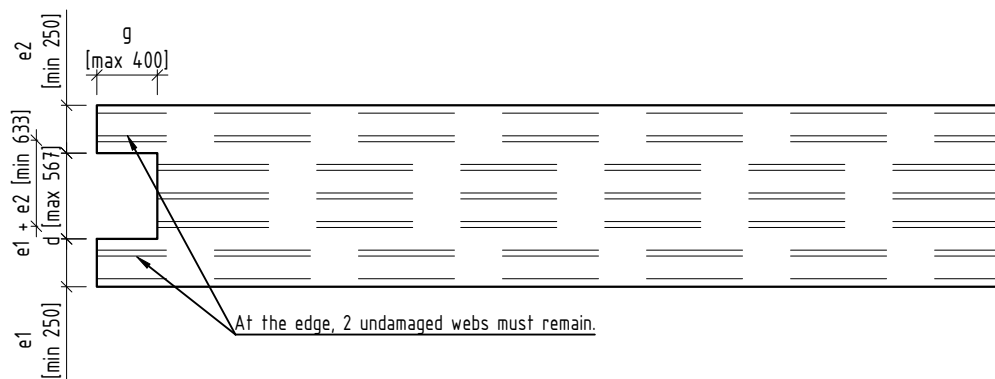
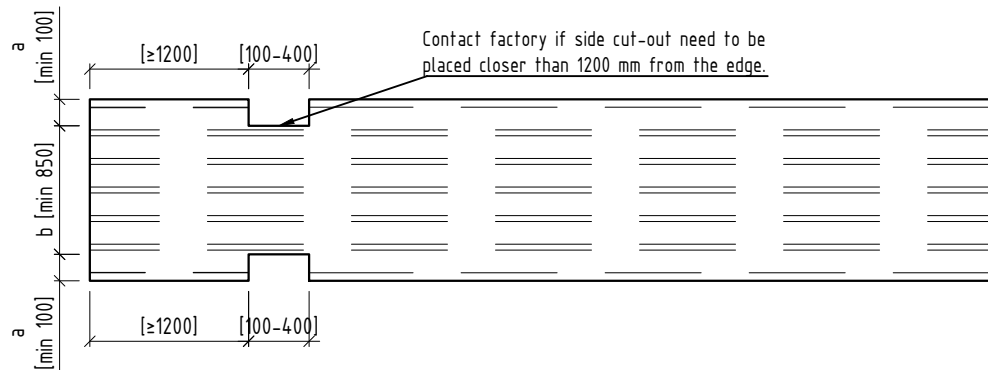
1. The presented cutting angle layout is applicable to all types of PKE slabs.
2. The layout shows the maximum technologically permissible cutting angle at the slab ends.
3. For slab angles smaller than 45°, the acute slab end may be cut perpendicular in order to maintain a minimum slab width of 100 mm (due to cracking limitations).

200, 220 HEIGHT SLAB OPENINGS AND CAVITIES REQUIREMENTS

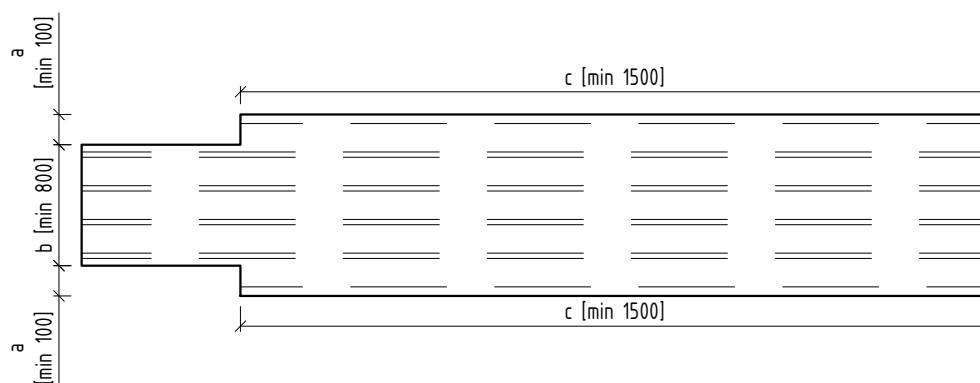
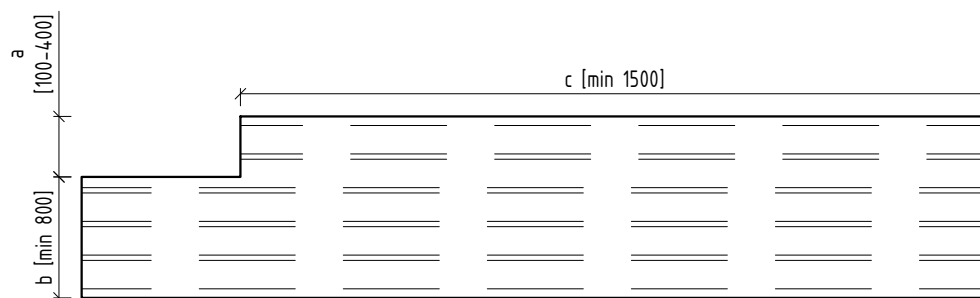
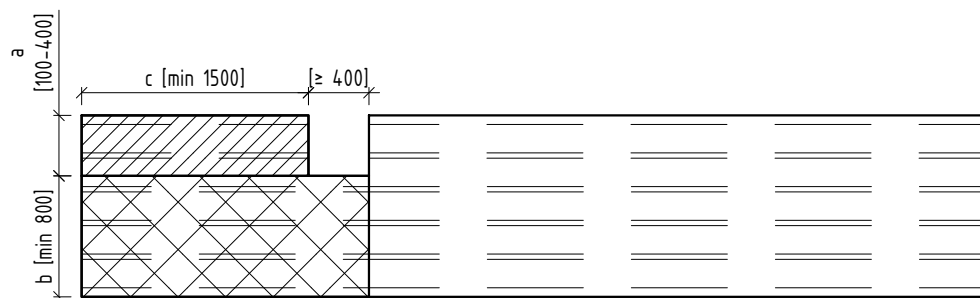
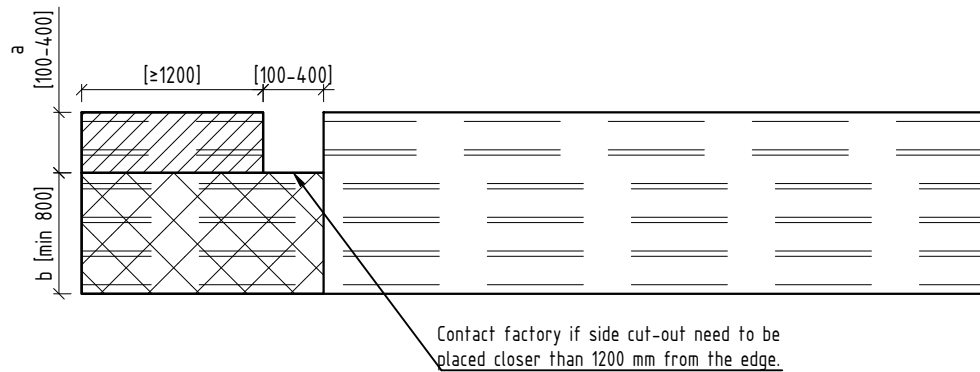


NOTES:
Cutting the web or strand in hatched zones must be coordinated with the factory at the design stage.

200, 220 HEIGHT SLAB OPENINGS AND CAVITIES REQUIREMENTS



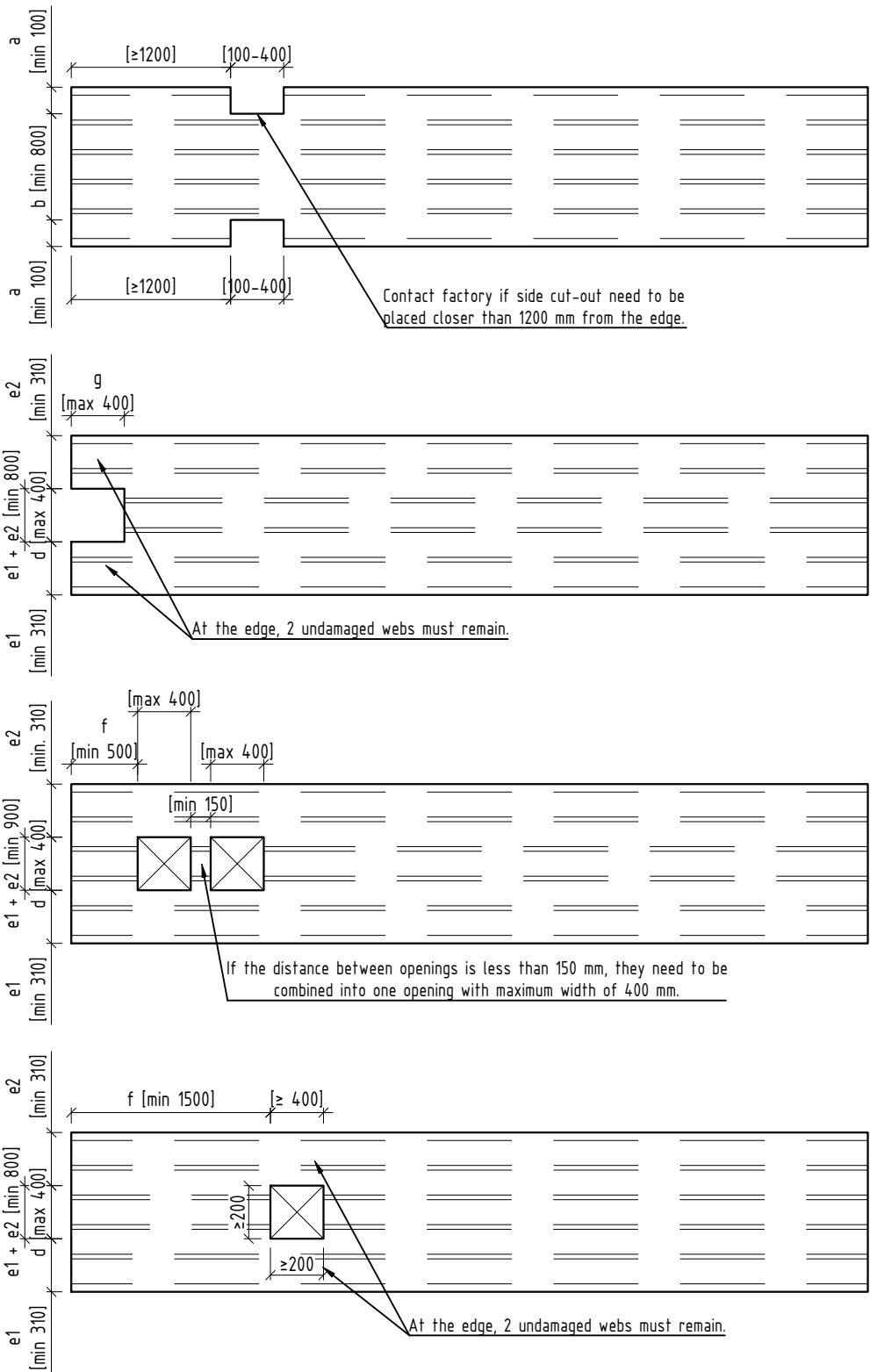
265 HEIGHT SLAB OPENINGS AND CAVITIES REQUIREMENTS



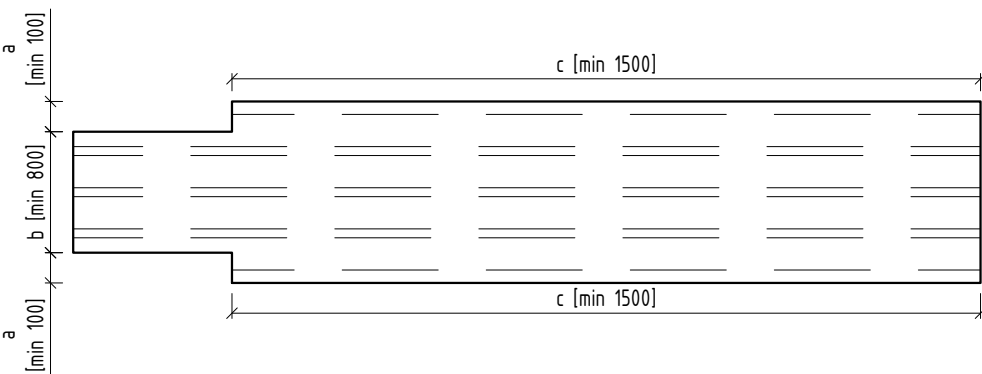
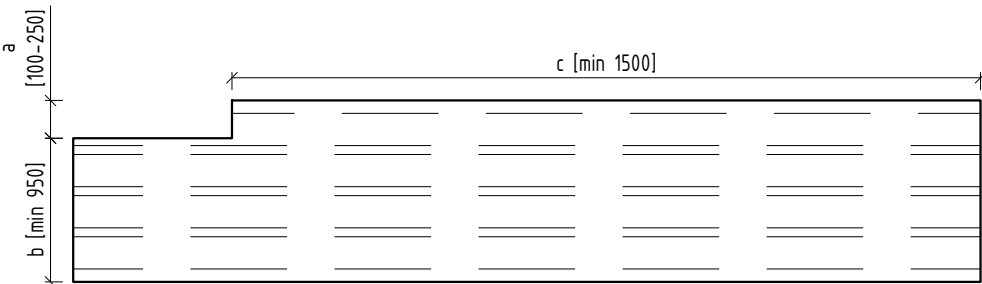
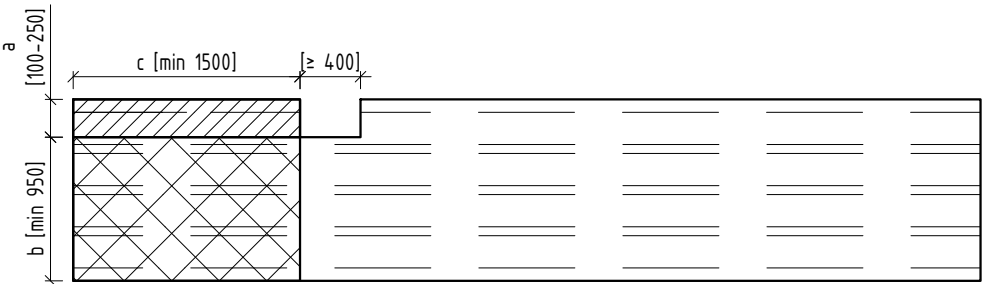
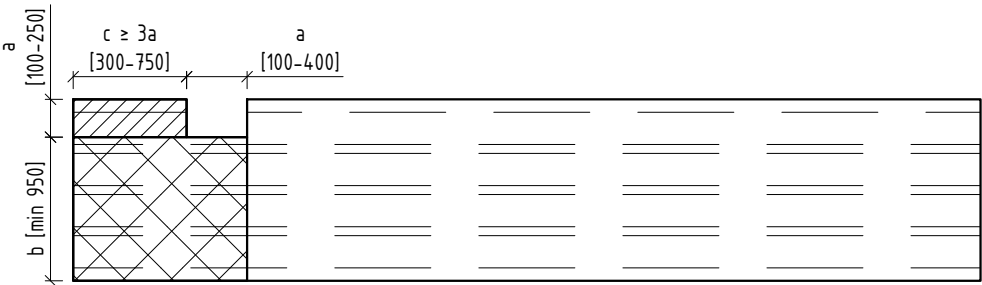
NOTES:

Cutting the web or strand in hatched zones must be coordinated with the factory at the design stage.

265 HEIGHT SLAB OPENINGS AND CAVITIES REQUIREMENTS

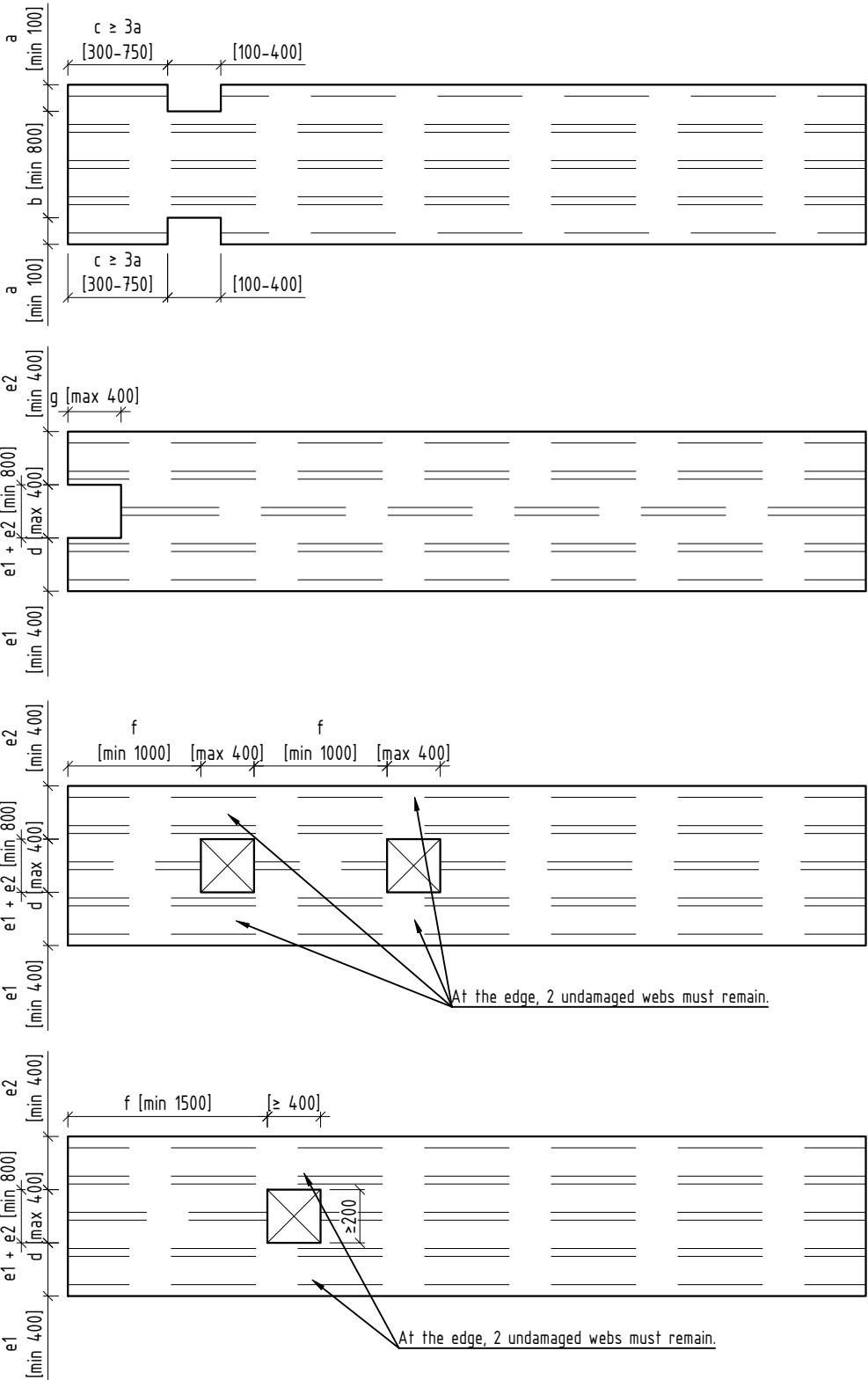


320, 400 HEIGHT SLAB OPENINGS AND CAVITIES REQUIREMENTS



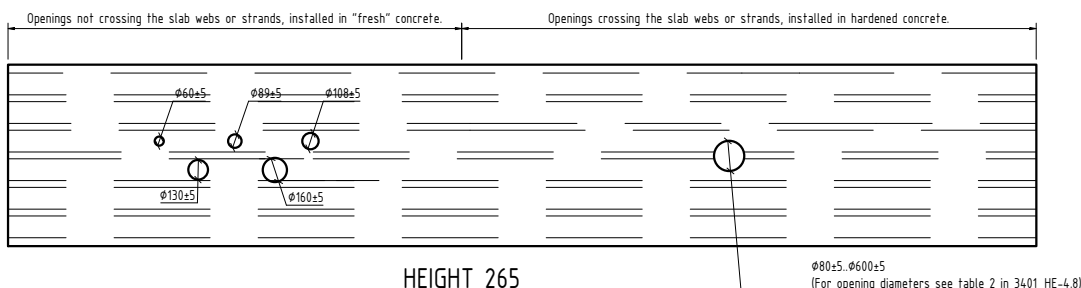
NOTES:
Cutting the web or strand in hatched zones must be coordinated with the factory at the design stage.

320, 400 HEIGHT SLAB OPENINGS AND CAVITIES REQUIREMENTS

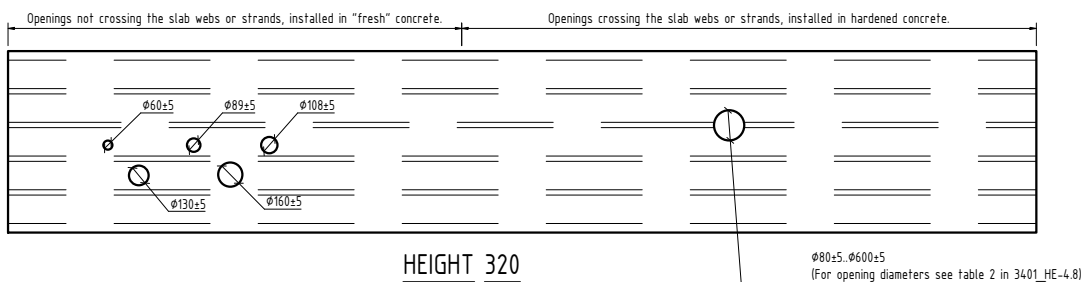


ROUND OPENING OPTIONS

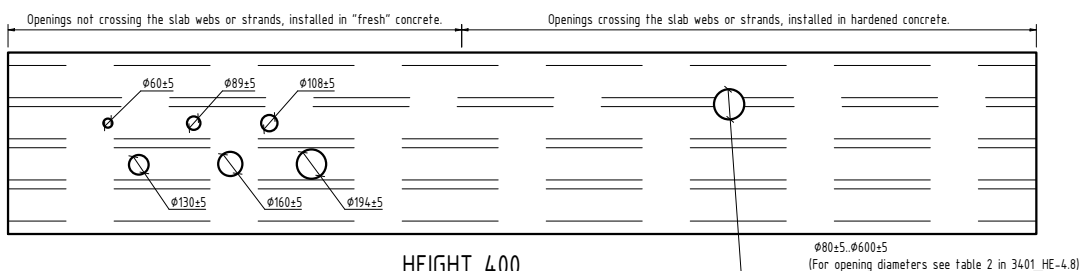
HEIGHT 200 AND 220



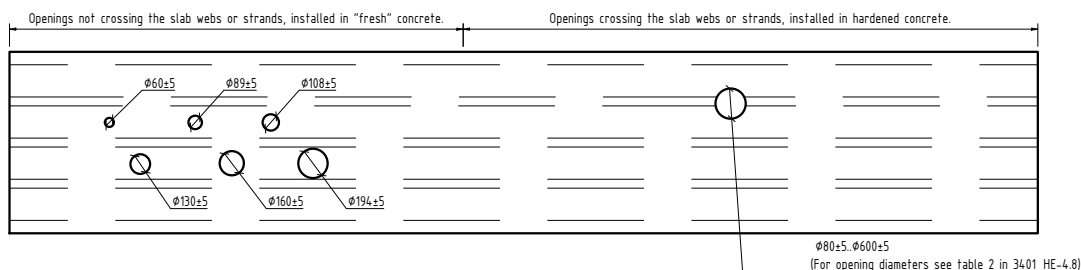
HEIGHT 265



HEIGHT 320



HEIGHT 400



NOTES:

1. Priority should be given to designing openings within cores, avoiding cutting the web or damaging strands. Such openings are installed in fresh concrete.
2. If an opening does not fit within one core, it is allowed to design it so that it cuts only one web of the slab.
3. It is recommended to design openings larger than 100 mm; smaller openings should be drilled on-site.
4. When crossing strands, rectangular openings larger than 150 mm are recommended.
5. Openings up to 150 mm in diameter must be circular. Openings located at the slab edge may be rectangular but not smaller than 100 mm, as specified in the "openings and cavities requirements".

STANDARD DIAMETERS OF ROUND SERVICE OPENINGS

1. When the opening does not cut strands:

Position	Opening diameter (mm)
1	60
2	89
3	108
4	130
5	160
6	194

2. When the opening cuts strands:

Position	Opening diameter (mm)
	Own equipment
1	80
2	100
3	120
4	130
5	140
6	150
7	160
8	170
9	180
10	190
11	200
12	225
13	250
14	275
15	300
	Technominas
16	350
17	400
18	450
19	500
20	550
21	600

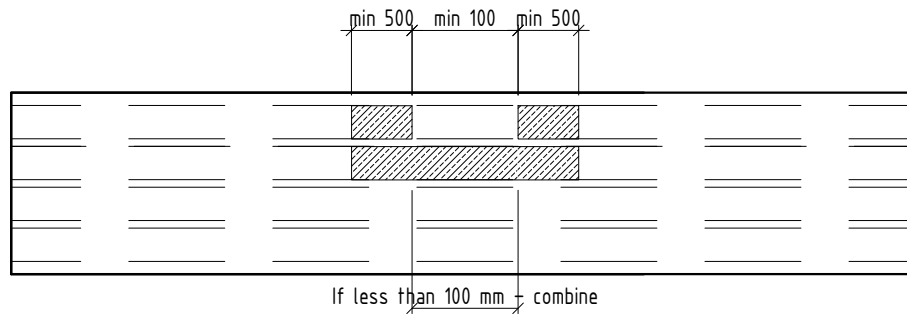
NOTES:

- Holes with a diameter of less than 100 mm are to be drilled on-site by the client.
- The minimum tolerance for openings is 20 mm. Holes for openings may only be formed using standard sizes.

EXAMPLE:

Tube:	Required tolerance:	Opening used:
100 mm	20 mm	120 mm
125 mm	20 mm	150 mm
200 mm	20 mm	225 mm

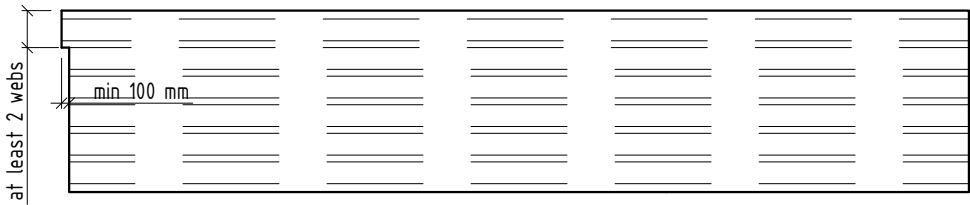
FILLING CONSTRUCTION INSTRUCTION



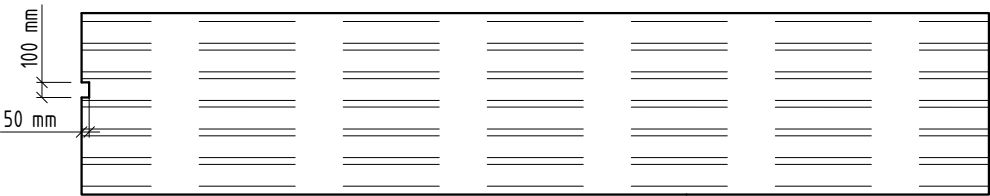
NOTES:

1. HCS void filling at the factory is not a standard solution and may only be used with prior approval from the responsible engineer.
2. A minimum gap of 100 mm may be left between concrete fillings; if the gap is smaller, the fillings must be connected.
3. The minimum width of the concrete filling is 500 mm.

EDGE CUT REQUIREMENTS

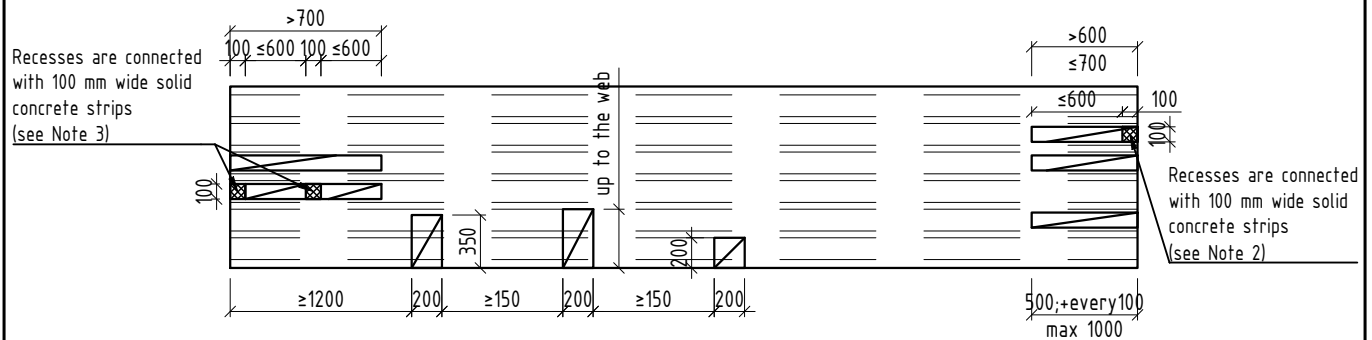


RECOMMENDED DOWEL ANCHORING RECESS GEOMETRY (M 1:50)

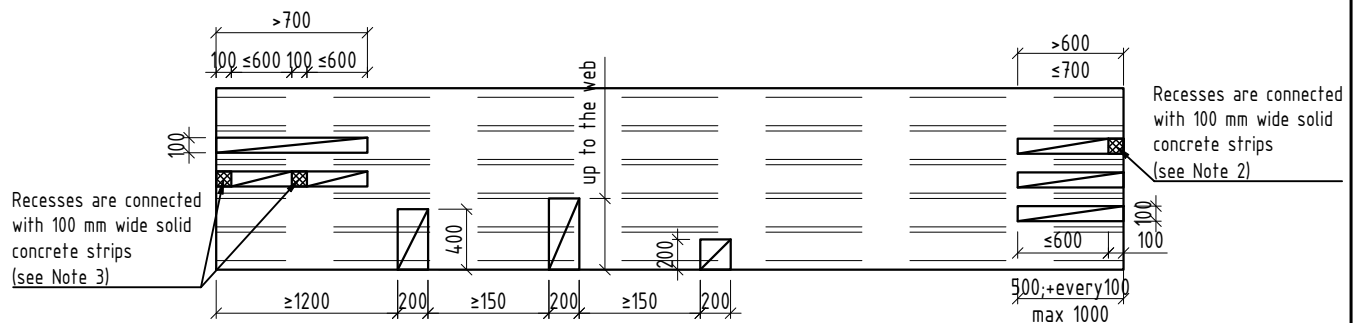


NOTES:
1. Edge cuts at PKE ends must be at least 50 mm deep.

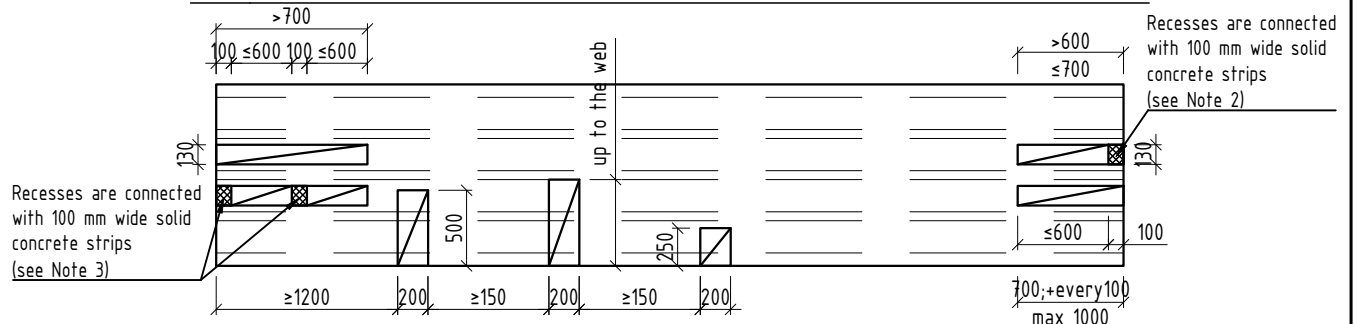
200, 220 HEIGHT SIDE & END ANCHORING RECESS GEOMETRY



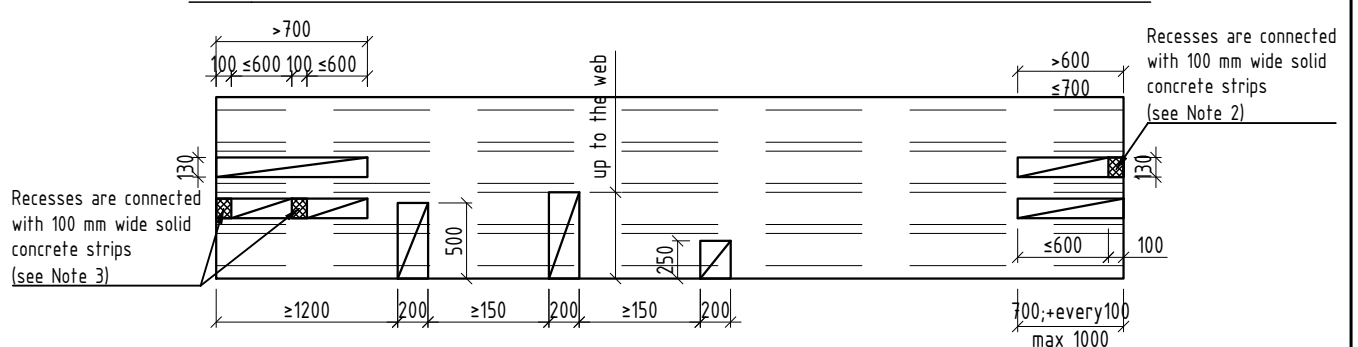
265 HEIGHT SIDE & END ANCHORING RECESS GEOMETRY



320 HEIGHT SIDE & END ANCHORING RECESS GEOMETRY



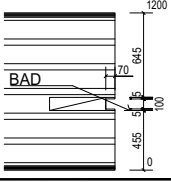
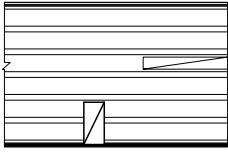
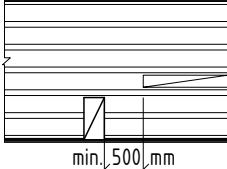
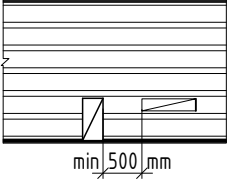
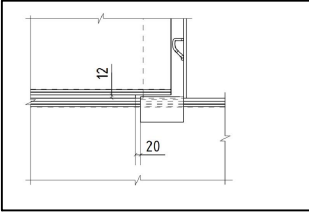
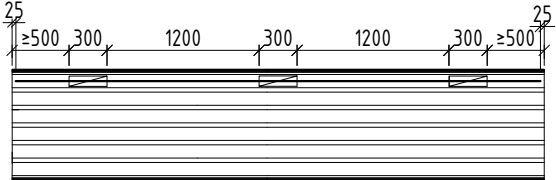
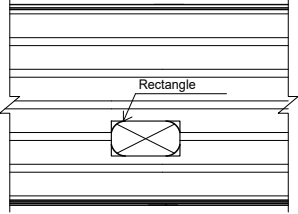
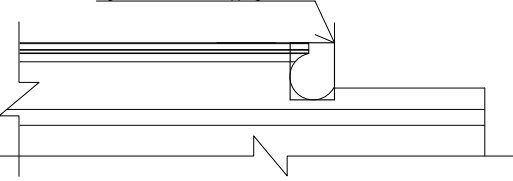
400 HEIGHT SIDE & END ANCHORING RECESS GEOMETRY

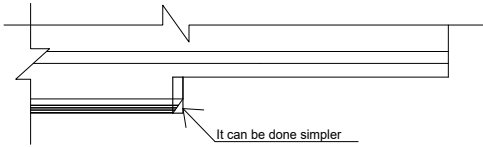
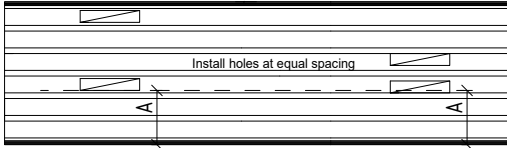
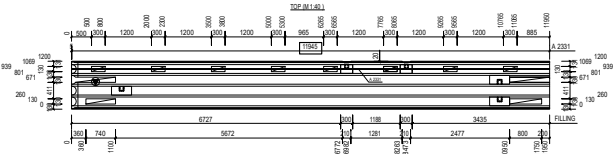
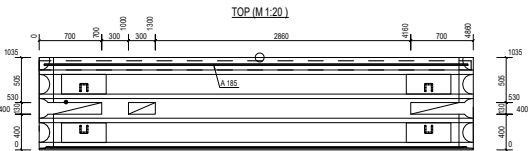


NOTES:

- Side anchoring recesses exceeding the standard length must stop at the web.
- If end recesses are adjacent and the web between them is longer than 600 mm, a 100 mm wide solid concrete section must be left at the start of the slab in one of the recesses; in the other adjacent recess, such a section is not required.
- If end recesses are adjacent and the web between them is longer than 700 mm, leaving a solid concrete section at the start of the slab is not sufficient; an additional solid concrete section must be provided at the midpoint of the remaining un-cast web. A web section without a solid concrete bridge must not exceed 600 mm in length.

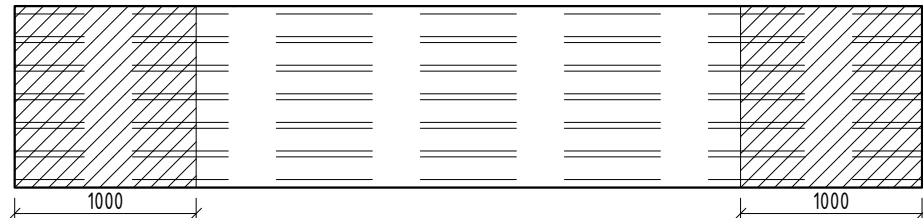
1	Requirements for modeling		
1.1	When installing elongated anchoring holes in edge cores of PKE slabs, a minimum 200 mm solid concrete section of the slab must be left.		2026-04-27
1.2	Form a 100×100 chamfer at the ends of PKE20 and PKE27 slabs.		2026-04-27
1.3	Form a chamfer at the ends of PKE32 and PKE40 slabs: – triangular shape 160×160; – rectangular shape 100×160.		
1.4	For PKE20 and PKE27 slabs, elongated anchoring recesses are recommended to be formed up to 500 mm in length. When the slab is short and recesses are located on both sides, leave a minimum distance of 500 mm between recesses. Recess width 100 mm.		2026-04-27
1.5	For PKE32 and PKE40 slabs, elongated anchoring recesses are recommended to be formed up to 700 mm in length. When the slab is short and recesses are located on both sides, leave a minimum distance of 500 mm between recesses. Recess width 130 mm.		2026-04-27

2.6	Recess for anchoring bar and dowel must be of the same width.		2026-04-27
2.7	When installing elongated end anchoring recesses together with side anchoring recesses in PKE slab ends, the following requirements must be met: 1. No distance requirement between recesses (minimum 2 webs between openings). 2. Minimum distance between recesses 500 mm (separated by one web). 3. Distance between recesses 500 mm with a 200 mm solid connection at the slab end (when no web separates the recesses).	1.  2.  3. 	2026-04-27
2.8	12 mm recess in PKE slab supported on PETRA beam.		2026-04-27
2.9	Geometry and spacing of reinforcement casting openings. Reinforcement must be tied to the unit.		2026-04-27
2.10	Oval openings must be designed as rectangular.		2026-04-27
2.11	Avoid this geometry, as such recesses often cause chipping or breaking of the remaining concrete edges. In this or similar cases, the simple solution is to model a rectangular recess.		2026-04-27

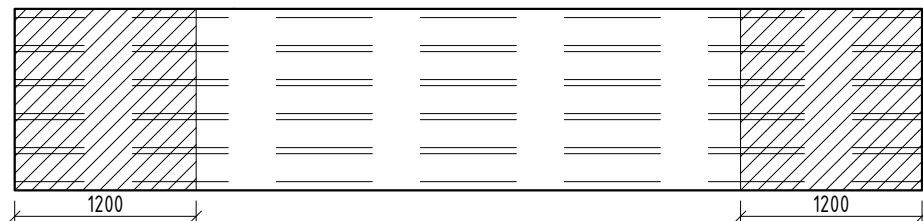
2.12	Avoid this geometry, as such recesses are difficult to install. In this or similar cases, a simple solution is to model a slightly larger rectangular recess.		2026-04-27																								
2.13	Avoid such reinforcement insertions in the factory, where the bar has to be embedded during production. In this case, it is cheaper and simpler to make an opening at the top part and place the reinforcement on site.		2026-04-27																								
2.14	When modeling holes and openings, it is recommended to use equal spacing and uniform positioning.		2026-04-27																								
2.15	Reinforcement bars must not extend beyond the slab dimensions. (bar length = slab length - 50 mm).		2026-04-27																								
2.16	No reinforcement bars allowed in the cut web.		2026-04-27																								
2.17	The following tables define the profile naming conventions for hollow core slabs within the TEKLA software environment:	<table border="1"> <thead> <tr> <th colspan="2">Vilnius factory</th> <th colspan="2">Tartu factory</th> </tr> <tr> <th>Profile name:</th> <th>Profile name in TEKLA</th> <th>Profile name:</th> <th>Profile name in TEKLA</th> </tr> </thead> <tbody> <tr> <td>HCS20</td> <td>HP_HCS20</td> <td>TAM22</td> <td>HPE_HCS22</td> </tr> <tr> <td>PKE27</td> <td>HP_HCS27</td> <td>TAM27</td> <td>HPE_HCS27</td> </tr> <tr> <td>PKE32</td> <td>HP_HCS32</td> <td>TAM32</td> <td>HPE_HCS32R</td> </tr> <tr> <td>HCS40</td> <td>HP_HCS40</td> <td>TAM40</td> <td>HPE_HCS40</td> </tr> </tbody> </table>	Vilnius factory		Tartu factory		Profile name:	Profile name in TEKLA	Profile name:	Profile name in TEKLA	HCS20	HP_HCS20	TAM22	HPE_HCS22	PKE27	HP_HCS27	TAM27	HPE_HCS27	PKE32	HP_HCS32	TAM32	HPE_HCS32R	HCS40	HP_HCS40	TAM40	HPE_HCS40	2026-04-27
Vilnius factory		Tartu factory																									
Profile name:	Profile name in TEKLA	Profile name:	Profile name in TEKLA																								
HCS20	HP_HCS20	TAM22	HPE_HCS22																								
PKE27	HP_HCS27	TAM27	HPE_HCS27																								
PKE32	HP_HCS32	TAM32	HPE_HCS32R																								
HCS40	HP_HCS40	TAM40	HPE_HCS40																								

MARKED ZONES FOR SIDE OPENINGS AND RECESSES

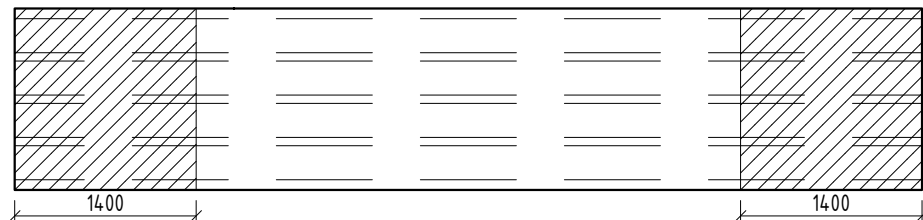
200 & 220 HEIGHT



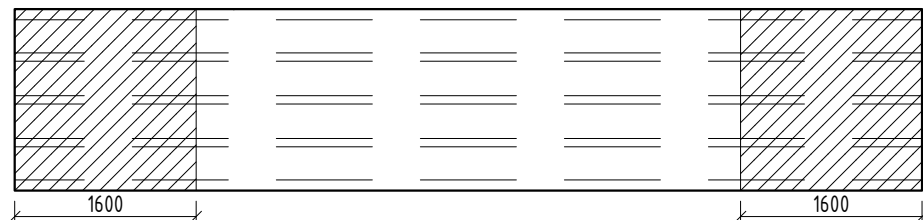
265 HEIGHT



320 HEIGHT



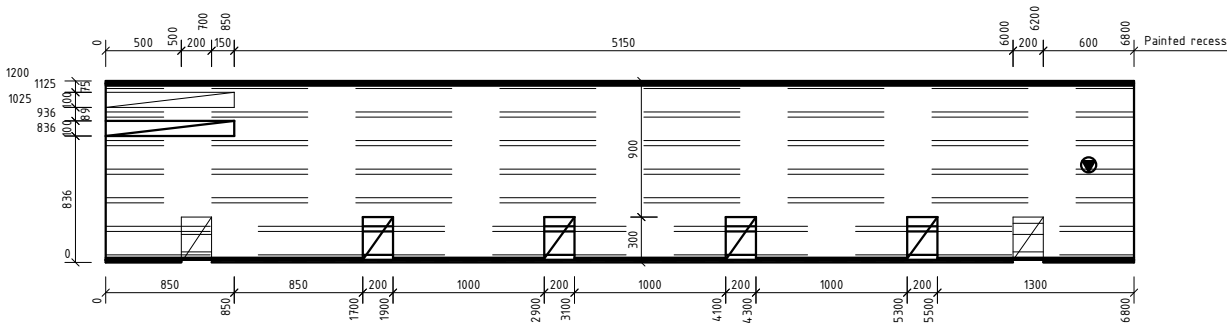
400 HEIGHT



NOTES:

1. These distances are used in supply projects only. For design-build projects they are not applicable.
2. If there are openings or cavities in the hatched areas at the edge of the slab, their locations are marked in the factory with aerosol paint, and the fitter shall cut the openings and cavities at the marked places at their own expense.
3. If the cutouts cannot be made according to cavities and openings requirements they will be marked in the factory with paint.

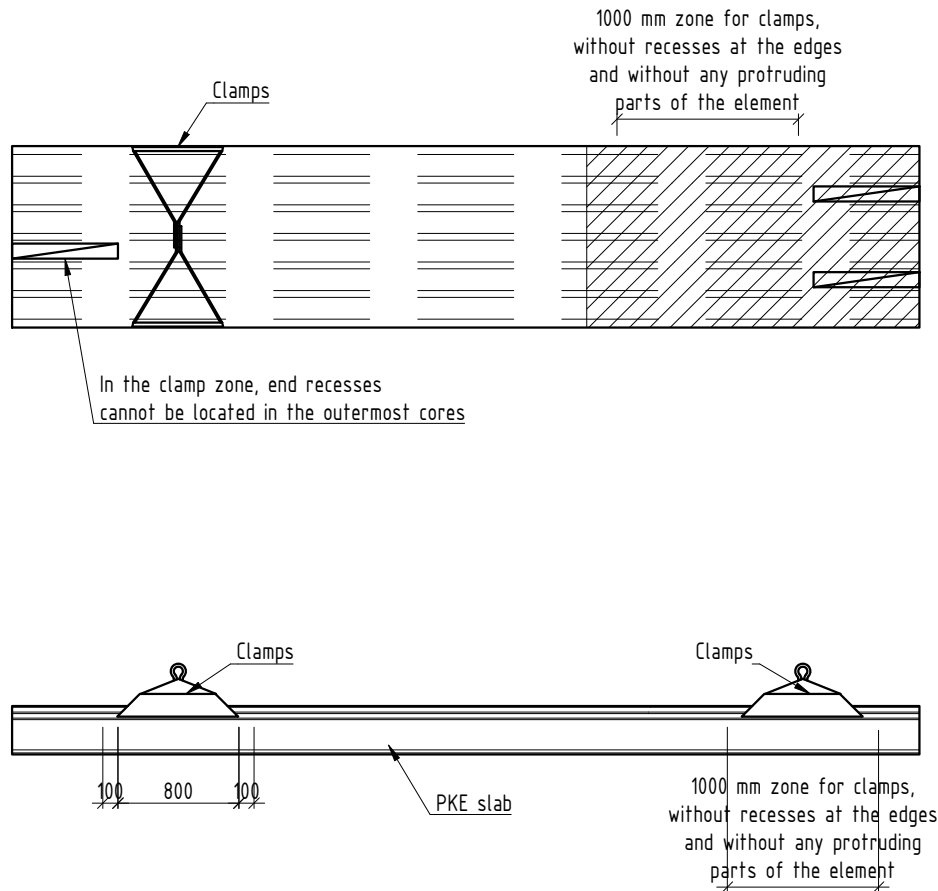
DRAWING MARKING IN THE MARKED ZONES



AEROSOL PAINT MARKING IN THE FACTORY



PKE SLAB LIFTING SCHEME USING CLAMPS

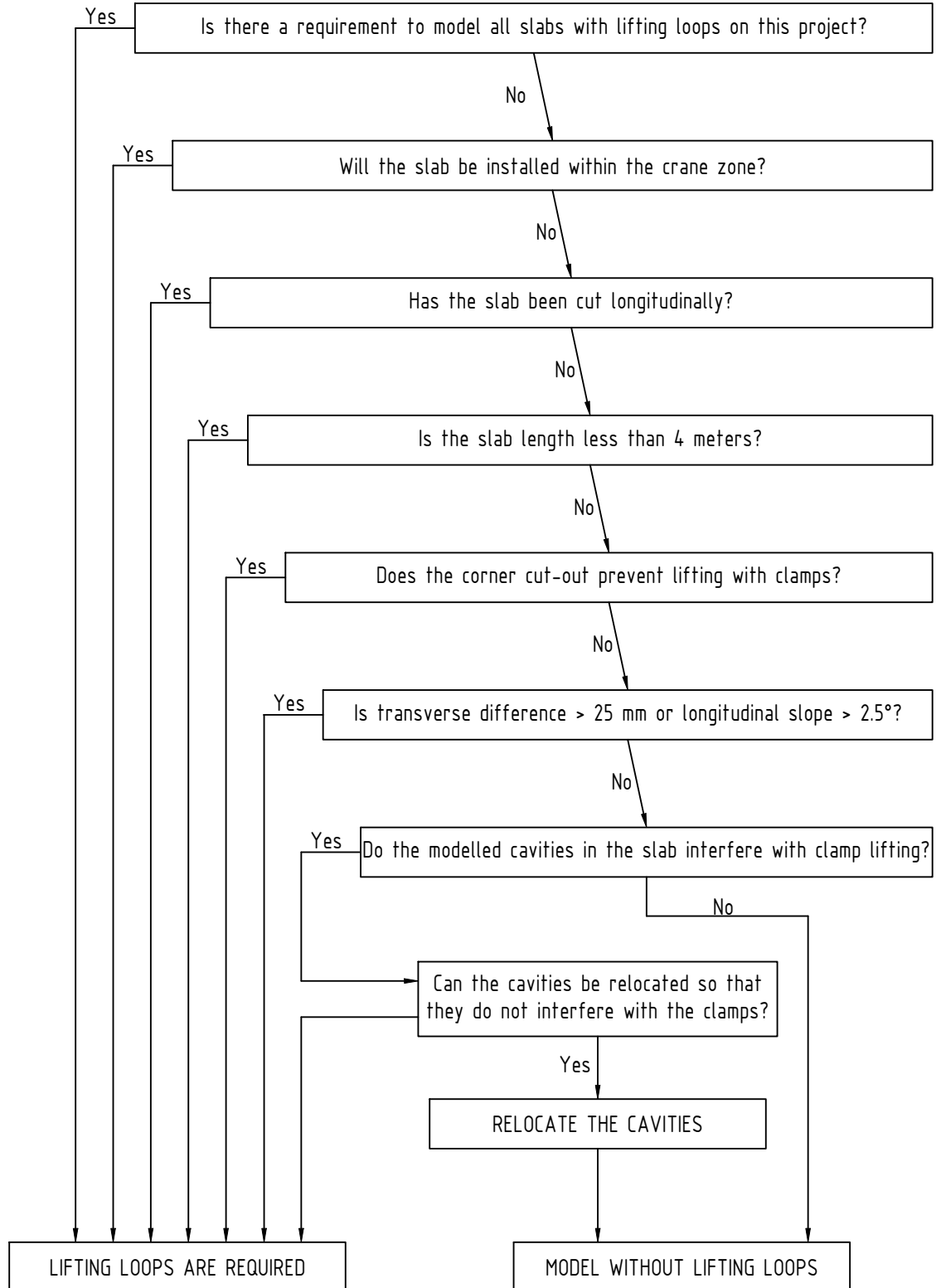


PKE slab cross-section height	Maximum cantilever end length of PKE slab		Minimum cantilever end length of PKE slab
	without top strands (5×H)	with top strands (8×H)	
200,220	1000	1600	200
265	1300	2100	265
320	1600	2600	320
400	2000	3200	400

NOTES:

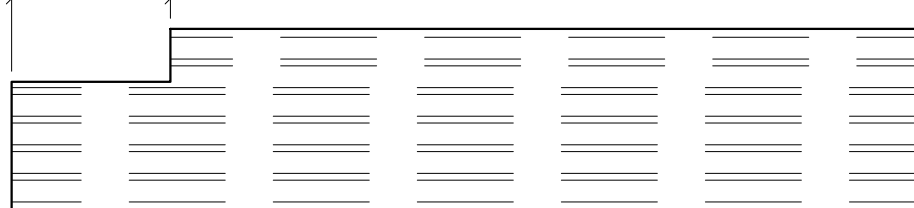
1. This lifting scheme applies to PKE slabs of all thicknesses.
2. The lifting capacity of clamps and slings must exceed the mass of the lifted slab.
3. For lifting with clamps, the slab must be at least 4 m long.

WHEN ARE LIFTING LOOPS REQUIRED IN PKE ELEMENTS?



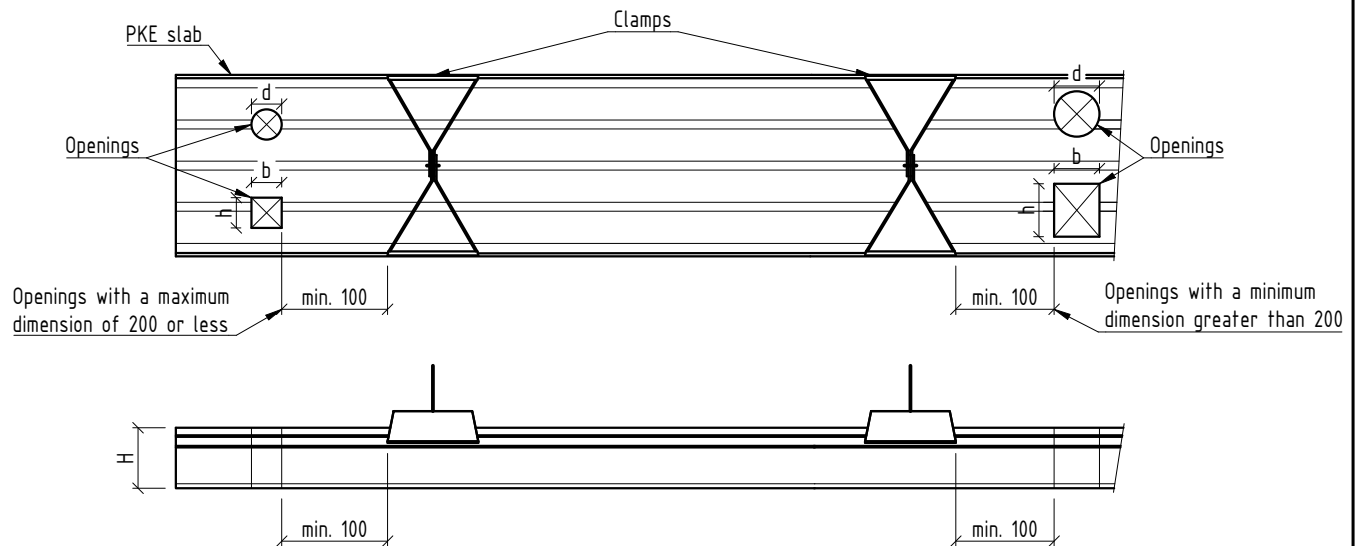
CASES WHERE A CORNER CUT-OUT REQUIRES LIFTING LOOPS

Corner cut-out length

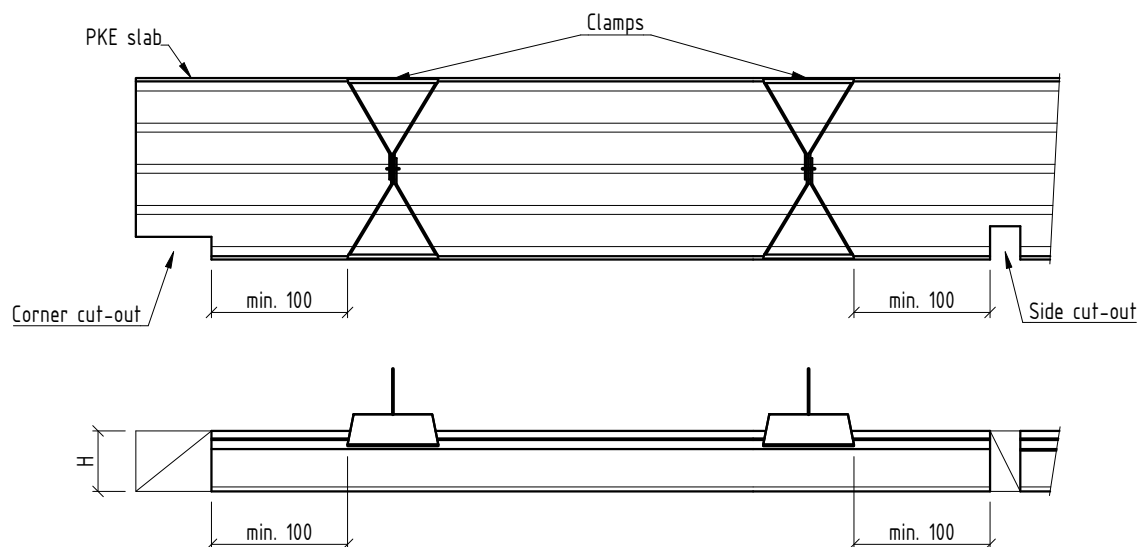


PKE slab cross-section height	Corner cut-out length is greater than	
	without top strands	with top strands
200,220	900	1500
265	1200	2000
320	1500	2500
400	1900	3100

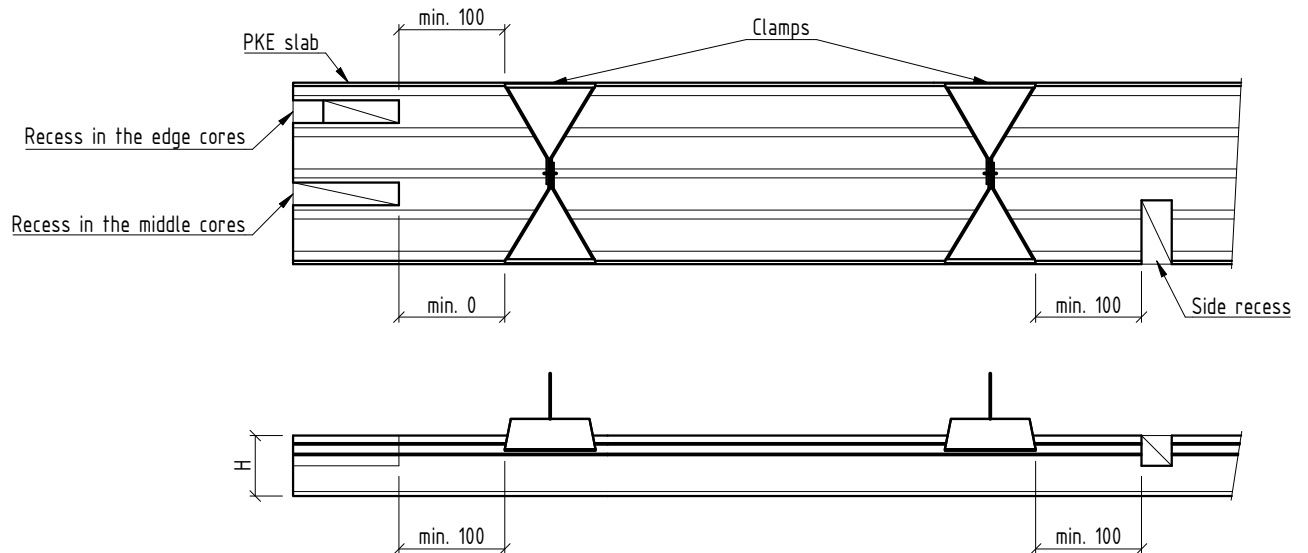
CLAMP DISTANCES FROM THE OPENINGS



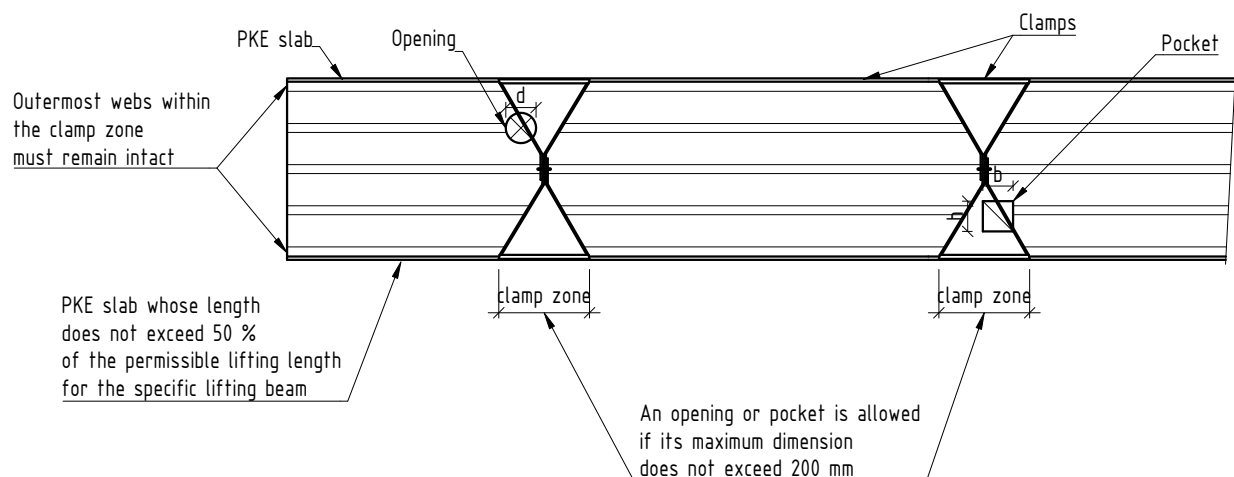
CLAMP DISTANCES FROM THE CUT-OUTS



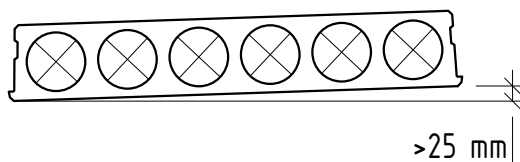
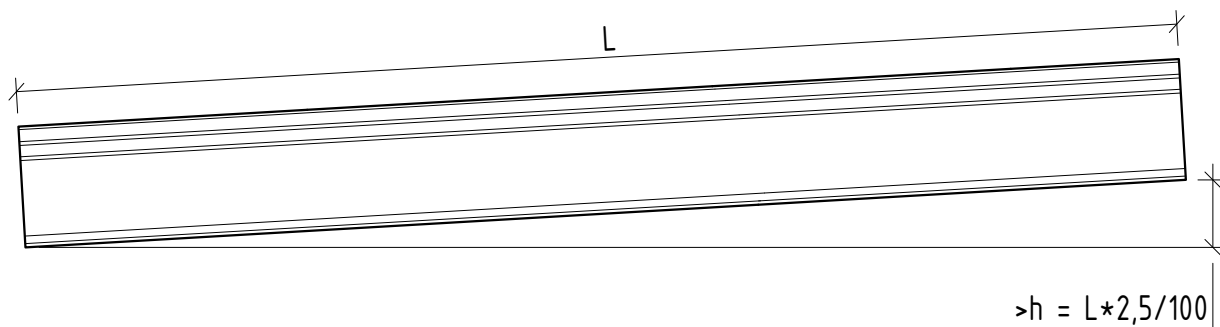
CLAMP DISTANCES FROM THE RECESSES



OPENINGS AND POCKETS WITHIN THE CLAMP ZONE



INSTALLATION DISTANCES REQUIRING LIFTING LOOPS (ANGLED SLAB)



NOTES:

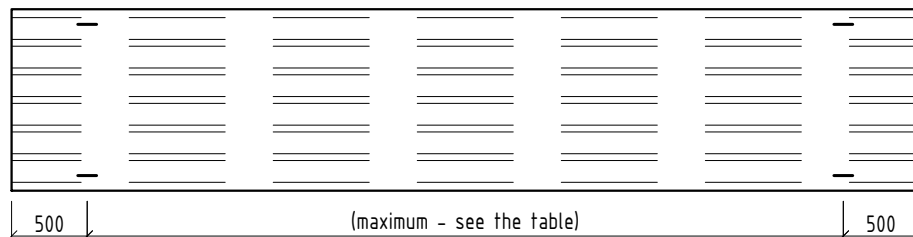
1. If the height difference exceeds the values shown above, the use of lifting loops is mandatory.
2. Maximum slope limits were based on construction site slope requirements.

EXAMPLE:

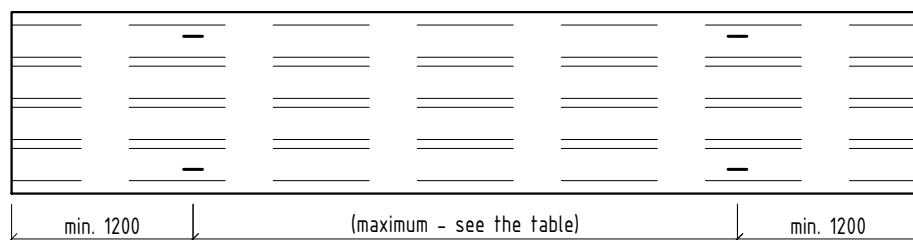
Slab length L, mm	Max. height difference between ends h, mm (2,5% slope)
5000	$h = 5000 * 2,5 / 100 = 125$
10000	$h = 10000 * 2,5 / 100 = 250$
12000	$h = 12000 * 2,5 / 100 = 300$

STANDARD LIFTING LOOP POSITION

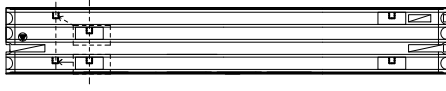
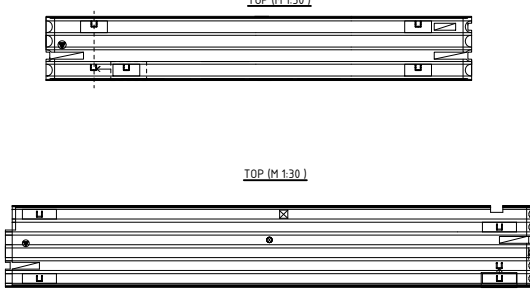
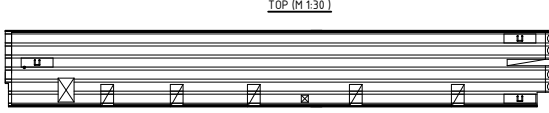
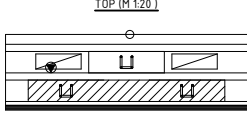
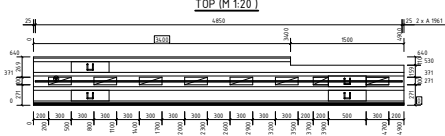
HEIGHT - 200,220,265,320



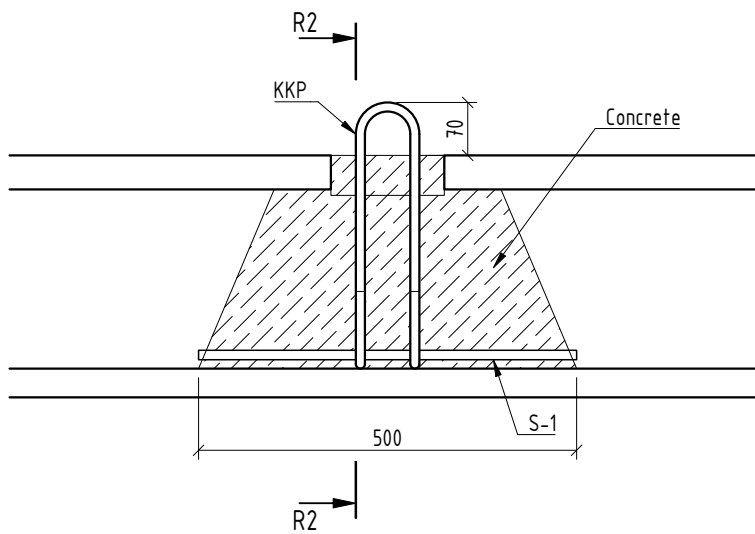
HEIGHT - 400



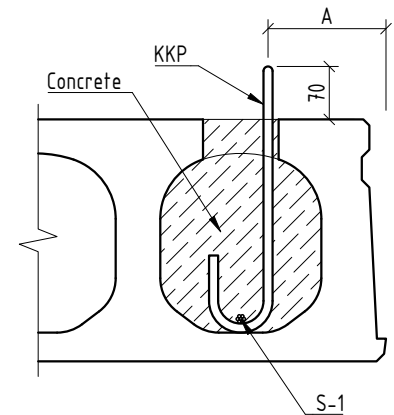
PKE slab cross-section height	Maximum placement of lifting loops		Recommended placement of lifting loops
	without top strands (5×H)	with top strands (8×H)	
200,220	1000	1600	500
265	1300	2100	500
320	1600	2600	500
400	2000	3200	min. 1200

1	Lifting loop placement requirements		
1.1	Place loops such that the two loops at one end are aligned in a single line.		2026-03-25
1.2	Position loops symmetrically within the slab.		2026-03-25
1.4	If there are openings near the lifting loop that could cause the slab to break during lifting, it is recommended to place the loop so that at least one web separates the loop from the opening. Position three loops centrally.		2026-03-25
1.5	If installing 4 loops is not possible, position 3 loops centrally. When placing a loop in the center of the slab, consult with a calculation engineer.		2026-03-25
1.6	If a lifting loop must be placed in a core that will contain reinforcement in its design position, the reinforcement must be assigned to the slab.		2026-03-25

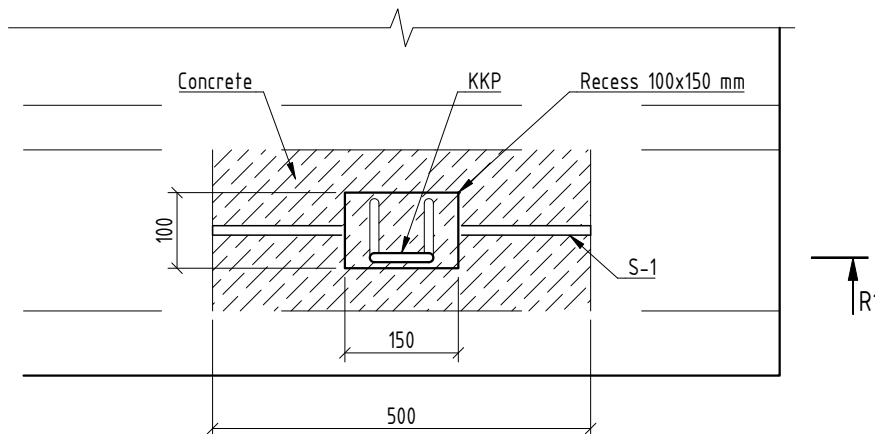
R1-R1 (M 1:10)



R2-R2 (M 1:10)



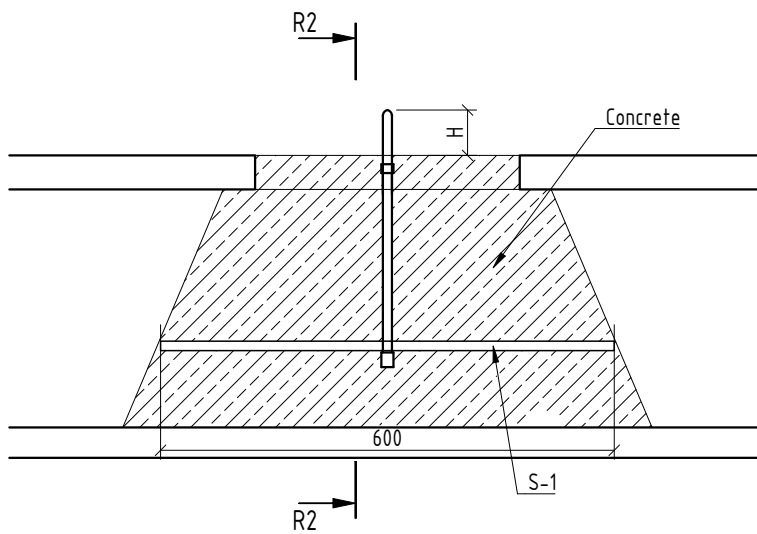
TOP VIEW (M 1:10)



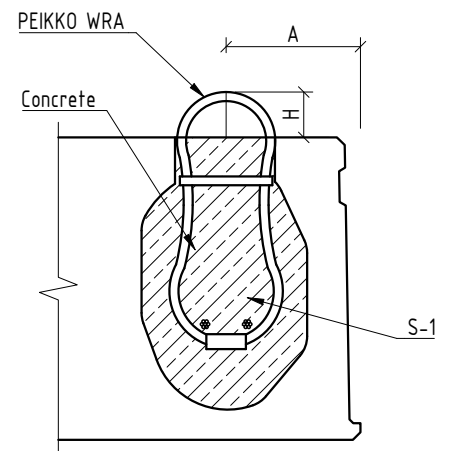
NOTES:

1. Install lifting loops in the freshly cast and unhardened slab.
2. Create a ~100x150 mm opening in the top flange of the slab at the lifting loop installation locations.
3. Manufacture anchoring rod S-1 from 12.5 mm strand offcuts. Minimum rod length: 500 mm.
4. Insert rod S-1 and lifting loop KKP through the opening. Hook the loop onto the rod.
5. Fill the anchoring area with concrete of at least class C40/50 and high workability (high slump) over the entire length of S-1.
6. Compact the filling concrete without damaging the concrete of the bottom flange. If necessary, install plugs in the slab for concrete retention.
7. For longitudinally cut slabs, orient the loops according to the slab width (center of gravity relative to the longitudinal axis). Distance "A" to be determined at discretion.
8. Lifting of the element is permitted only after the filling concrete has reached 70% of its design strength.

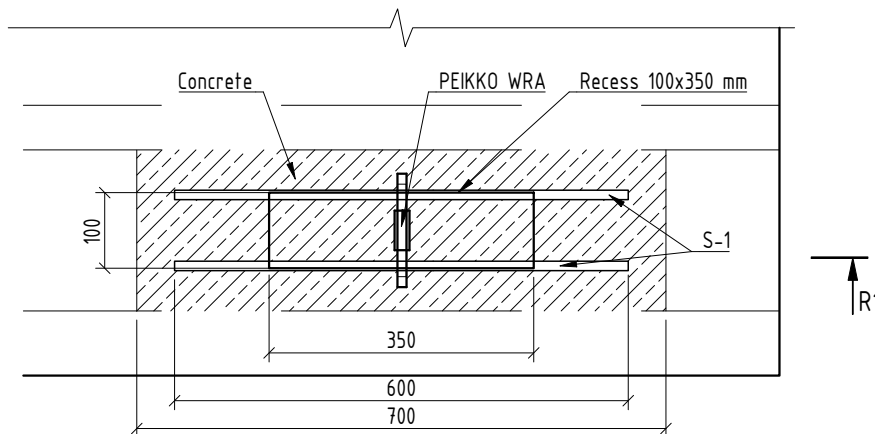
R1-R1 (M 1:10)



R2-R2 (M 1:10)



TOP VIEW (M 1:10)

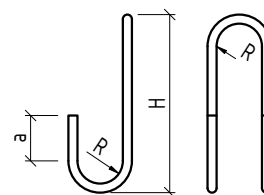


NOTES:

1. Install lifting loops in the freshly cast and unhardened slab.
2. Create a ~100x350 mm opening in the top flange of the slab at the lifting loop installation locations.
3. Manufacture two anchoring rods S-1 from 12.5 mm strand offcuts. Minimum rod length: 600 mm.
4. Insert two rods S-1 and lifting loop WRA through the opening. Hook the loop onto the rods.
5. Fill the anchoring area with the same concrete used for hollow core slabs (class C50/60) over the entire length of S1
6. Compact the filling concrete without damaging the concrete of the bottom flange. If necessary, install plugs in the slab for concrete retention.
7. For longitudinally cut slabs, orient the loops according to the slab width (center of gravity relative to the longitudinal axis). Distance "A" to be determined at discretion.
8. Lifting of the element is permitted only after the filling concrete has reached 70% of its design strength.

NOTES:

1. The lifting loop must comply with the requirements of technical document CEN/TR 15728.
2. The lifting loop is manufactured from S235J2+N steel in accordance with EN 10025-2.
3. Alternative steel grades may be used, provided their properties are equivalent to those specified in Note 2.
4. The lifting loops are also suitable for other products, e.g. PP slabs.
5. PEIKKO WRA lifting inserts can be used instead of KKP lifting loops



Marking	Slab type	Rebar diameter mm	Load per one lifting loop, kg	Dimensions, mm			Blank length, mm	Product weight, kg
				a	H	R		
KKP-12-20	200	12	1100	40	237-240	30	760	0,68
KKP-14-20	200	14	1500	40	237-240	35	790	0,96
KKP-16-20	200	16	2000	40	237-240	40	825	1,31
KKP-20-20	200	20	2500	40	237-240	50	880	2,17
KKP-12-27	265	12	1100	60	292-295	30	910	0,81
KKP-14-27	265	14	1500	60	292-295	35	940	1,14
KKP-16-27	265	16	2000	60	292-295	40	975	1,54
KKP-20-27	265	20	3100	60	292-295	50	1040	2,57
KKP-25-27	265	25	4900	60	292-295	63	1120	4,32
KKP-14-32	320	14	1500	80	348-352	35	1095	1,33
KKP-16-32	320	16	2000	80	348-352	40	1125	1,78
KKP-20-32	320	20	3100	80	348-352	50	1190	2,94
KKP-25-32	320	25	4900	80	348-352	63	1275	4,92
KKP-16-40	400	16	2000	80	420-425	40	1275	2,02
KKP-20-40	400	20	3100	80	420-425	50	1340	3,31
KKP-25-40	400	25	4900	80	420-425	63	1420	5,48

PEIKKO WRA USED IN HOLLOW CORE SLABS

Element weight, kg	WRA lifting insert marking	Installation height H, mm
1600	WRA-1,2	60
2100	WRA-1,6	60
2650	WRA-2,0	60
3300	WRA-2,5	60
5350	WRA-4,0	80

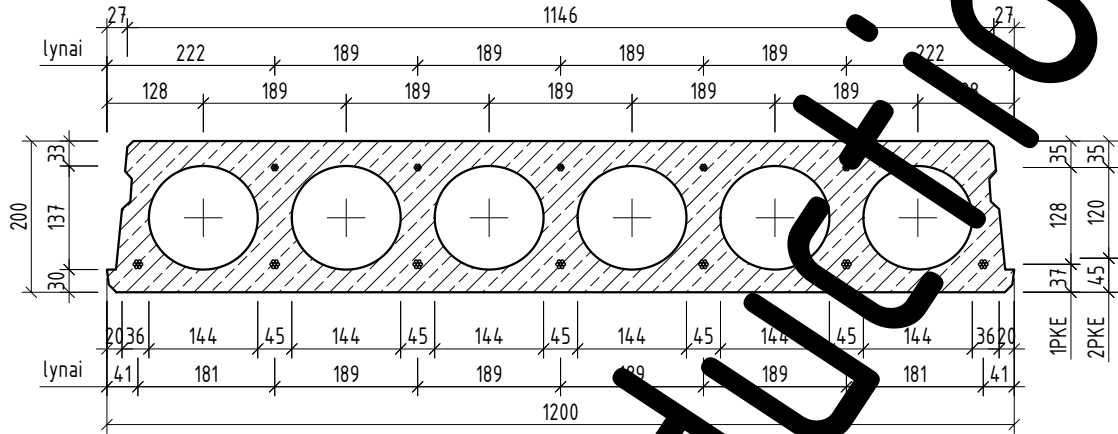
NOTES:

1. During lifting, the load is distributed between two lifting loops.
2. When selecting lifting loops, refer to the WRA lifting loop load capacity table.
3. Lifting weight was calculated with dynamic factor - 1.3 and diagonal tension factor - 1.15.

Technological requirements (PKE elements)

Nr	Requirements	Photos	Date
1	General requirements		
1.1	Drawings of embedded parts selection and non-standard details for the product group are submitted to GPS via e-mail according to the standard workflow.	Reports used in Tekla: HE_CAST_UNIT_EMBEDS_PREFIX	2026-04-27

PKE20 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Product mass:

- 283 kg/m²
- 339 kg/m
- (mass tolerance ± 5 %)

Concrete volume of the product:

- 0.116 m³/m²
- 0.139 m³/m

Core concrete volume and mass:

- 0.0155 m³
- 37.2 kg/m

Characteristic weight in the slab structure:

- 2.98 kN/m²

Core concrete volume:

- 0.31 kN/m²
- 0.37 kN/m

Min recommended standards

- product LST EN 1168
- concrete LST EN 206, LST 1974
- strands prLST prEN 10138-3

Recommended materials:

- concrete C50/60-XC1-C10,20-16-V1
- strands Y1860S7 (9,3 and 12,5 mm)

Recommended strand tension:

- tension side 900 MPa
- compression side 800 MPa

Concrete density:

2400 kg/m³

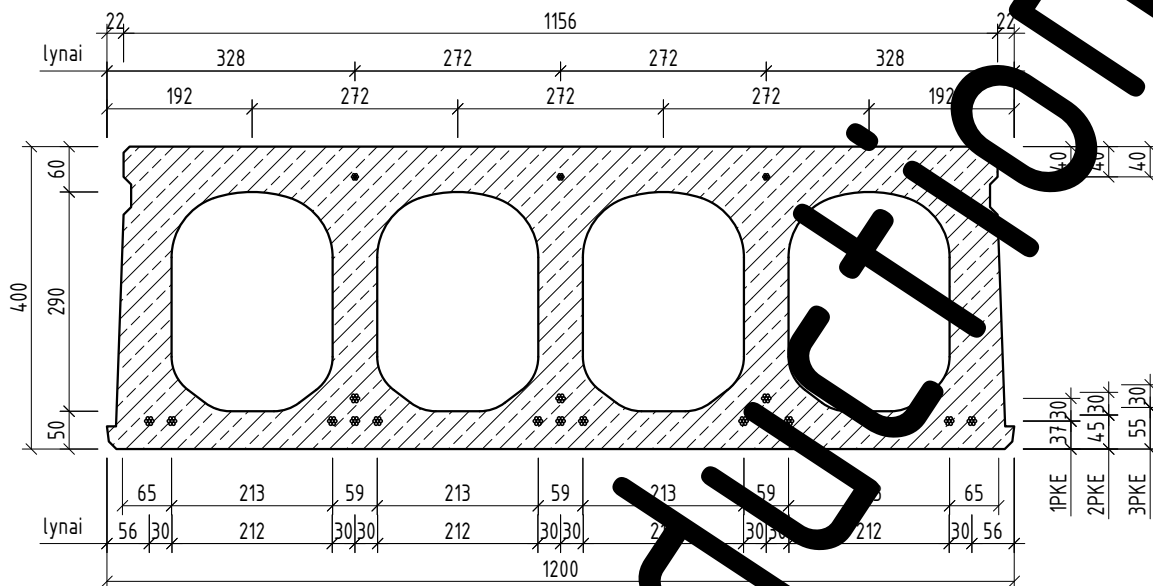
Strand d12,5 mm mass:0.74 kg/m

Strand d12,5 mm mass:0.42 kg/m

Concrete strength at the time of strand release:

- Warm period 70 %
- Cold period 80 %

PKE40 SLAB CROSS-SECTION (M 1:10)



PRODUCT CHARACTERISTICS

Product mass:

- 497 kg/m²
- 597 kg/m

(mass tolerance $\pm 5\%$)

Concrete volume of the product:

- 0.203 m³/m²
- 0.224 m³/m

Core concrete volume and mass:

- 0.0155 m³
- 37.2 kg/m

Characteristic weight in the slab structure:

- 5.29 kN/m²

Core concrete volume:

- 1.11 kN/m²
- 1.23 kN/m

Min recommended standards

- product LST EN 1168
- concrete LST EN 206, LST 1974
- strands prLST prEN 10138-3

Recommended materials:

- concrete C50/60-XC1-Cl0,20-16-V1
- strands Y1860S7 (9.3 and 12.5 mm)

Recommended strand tension:

- tension side 900 MPa
- compression side 800 MPa

Concrete density:

2400 kg/m³

Strand d12.5 mm mass: 0.74 kg/m

Strand d12.5 mm mass: 0.42 kg/m

Concrete strength at the time of strand release:

- Warm period 70 %
- Cold period 80 %