



Contents of drawing
Load-bearing sheet
Drawings - list of contents (page 1/2)

Date 21.7.2011	Rev. date 04.08.2021	Work nr. IN00A4000	Drw. nr. IN 00	Rev.
Drawn by Ruukki	Rev.			
Scale .	Building		File nr. IN00A4000	

Drawing nr.	Content of drawing (load-bearing sheets)	Date	Rev. date
T45-30L-905_V	Load-bearing sheet T45-30L-905, Technical dwg, Section - Center line	16.7.2007	7.4.2011
T70-57L-846_V	Load-bearing sheet T70-57L-846, Technical dwg, Section - Center line	16.7.2007	7.4.2011
T70-57L-1058_V	Load-bearing sheet T70-57L-1058, Technical dwg, Section - Center line	16.7.2007	7.4.2011
T130M-75L-930_V	Load-bearing sheet T130M-75L-930, Technical dwg, Section - Center line	16.10.2012	
T153-40L-840_V	Load-bearing sheet T153-40L-840, Technical dwg, Section - Center line	16.7.2007	7.4.2011
IN 01	Load-bearing sheet - Insulated roof, Erection - General view	18.10.2005	
IN 02	Load-bearing sheet - Insulated roof, Installation - Fastening to support	18.10.2005	7.4.2011
IN 03	Load-bearing sheet - Insulated roof, Installation - Fastening to support	18.10.2005	7.4.2011
IN 04	Load-bearing sheet - Insulated roof, Installation - Endlap	18.10.2005	7.4.2011
IN 05	Load-bearing sheet - Insulated roof, Installation - Static scheme	18.10.2005	7.4.2011
IN 06	Load-bearing sheet - Insulated roof, Installation - Static scheme	18.10.2005	7.4.2011
IN 07	Load-bearing sheet - Insulated roof, Installation - Simple overlap	7.4.2011	7.4.2011
IN 08	Load-bearing sheet - Insulated roof, Installation - Simple overlap	7.4.2011	7.4.2011
IN 09	Load-bearing sheet - Insulated roof, Installation - Supporting piece	18.10.2005	7.4.2011
IN 10	Load-bearing sheet - Insulated roof, Installation - Supporting piece	18.10.2005	7.4.2011
IN 11	Load-bearing sheet - Insulated roof, Erection - Gerber system	18.10.2005	7.4.2011
IN 12	Load-bearing sheet - Insulated roof, Erection - Gerber system (endlap)	12.09.2005	7.4.2011
IN 13	Load-bearing sheet - Structural detail, Fastening to concrete	12.09.2005	7.4.2011
IN 14	Load-bearing sheet - Structural detail, Fastening to concrete/wood	12.09.2005	7.4.2011
IN 15	Load-bearing sheet - Structural detail, Fastening to prestressed concrete structures	12.09.2005	7.4.2011
IN 16	Load-bearing sheet - Structural detail, Fastening to prestressed concrete structures	12.09.2005	7.4.2011
IN 17	Load-bearing sheet - Insulated roof, Installation - Sidelap	18.10.2005	7.4.2011
IN 18	Load-bearing sheet - Insulated roof, Installation - Sidelap	18.10.2005	7.4.2011
IN 19	Load-bearing sheet - Structural detail, Flat roofs - 1	15.12.2000	4.8.2021
IN 20	Load-bearing sheet - Structural detail, Flat roofs - 2	15.12.2000	4.8.2021
IN 21	Load-bearing sheet - Structural detail, Double pitched roofs or similar - 1	15.12.2000	4.8.2021
IN 22	Load-bearing sheet - Structural detail, Double pitched roofs or similar - 2	15.12.2000	4.8.2021
IN 23	Load-bearing sheet - Structural detail, Double pitched roofs or similar - 3	15.12.2000	4.8.2021
IN 24	Load-bearing sheet - Structural detail, Double pitched roofs or similar - 4	15.12.2000	4.8.2021
IN 25	Load-bearing sheet - Structural detail, Double pitched roofs or similar - 5	15.12.2000	4.8.2021
IN 26	Load-bearing sheet - Structural detail, Warehouse roofs - 1	15.12.2000	21.7.2011
IN 27	Load-bearing sheet - Structural detail, Warehouse roofs - 2	15.12.2000	21.7.2011
IN 28	Load-bearing sheet - Structural detail, Warehouse roofs - 3	15.12.2000	21.7.2011
IN 29	Load-bearing sheet - Structural detail, Warehouse roofs - 4	15.12.2000	21.7.2011
IN 30	Load-bearing sheet - Structural detail, Canopy and warehouse roofs	15.12.2000	21.7.2011
IN 31	Load-bearing sheet - Structural detail - 1	15.12.2000	4.8.2021
IN 32	Load-bearing sheet - Structural detail - 2	15.12.2000	4.8.2021
IN 33	Load-bearing sheet - Structural detail - 3	15.12.2000	4.8.2021
IN 34	Load-bearing sheet - Structural detail - 4	15.12.2000	4.8.2021
IN 35	Load-bearing sheet - Structural detail - 5	15.12.2000	4.8.2021



Contents of drawing

Load-bearing sheet

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Date 21.7.2011	Rev. date 04.08.2021	Work nr. IN00A4000	Drw. nr. IN 00	Rev.
Drawn by Ruukki	Rev.			
Scale	Building		File nr. IN00A4000	

Drawing nr.	Content of drawing (load-bearing sheets)	Date	Rev. date
IN 36	Load-bearing sheet - Structural detail, Intermediate floor	15.12.2000	21.7.2011
IN 37	Load-bearing sheet - Structural detail, Light-weight intermediate floor	15.12.2000	21.7.2011
IN 38	Load-bearing sheet - Structural detail, Uninsulated walls - 1	15.12.2000	21.7.2011
IN 39	Load-bearing sheet - Structural detail, Uninsulated walls - 2	15.12.2000	21.7.2011
IN 40	Load-bearing sheet - Structural detail, Fastening of acoustic insulation wool - 1	15.12.2000	4.8.2021
IN 41	Load-bearing sheet - Structural detail, Fastening of acoustic insulation wool - 2	15.12.2000	4.8.2021
IN 42	Load-bearing sheet - Structural detail, Opening	15.12.2000	21.7.2011
IN 43	Load-bearing sheet - Structural detail, Supporting - 1	15.12.2000	21.7.2011
IN 44	Load-bearing sheet - Structural detail, Supporting - 2	15.12.2000	21.7.2011



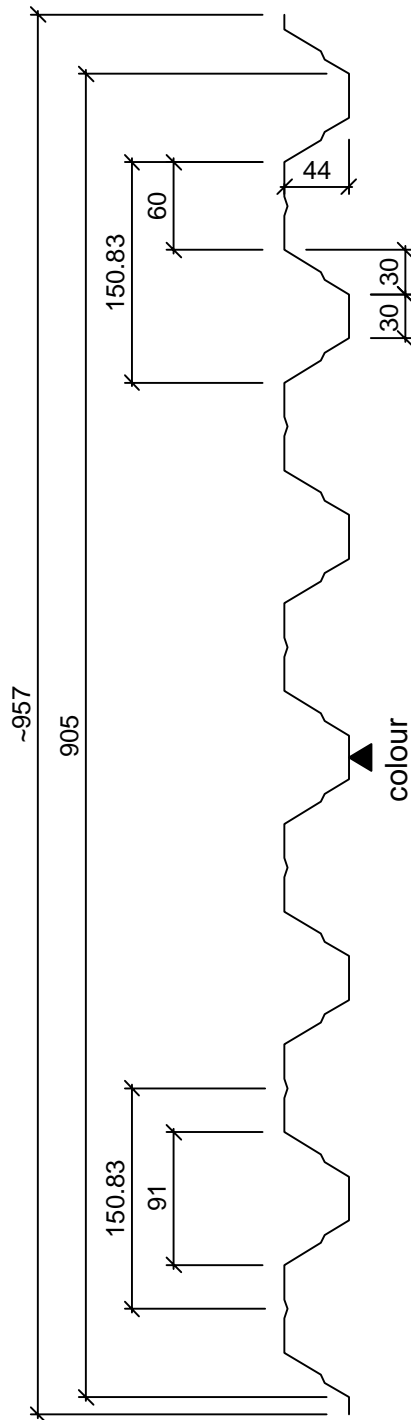
Contents of drawing

Load-bearing sheet T45-30L-905

Technical Drawing

Section - Center line

Date 16.07.2007	Rev. date 07.04.2011	Work nr. TECDA4109	Drw. nr. T45-30L-905_V	Rev. 01
Drawn by Ruukki	Rev. changed colour side			
Scale 1:5	Building .		File nr. TECD T45-30L-905	

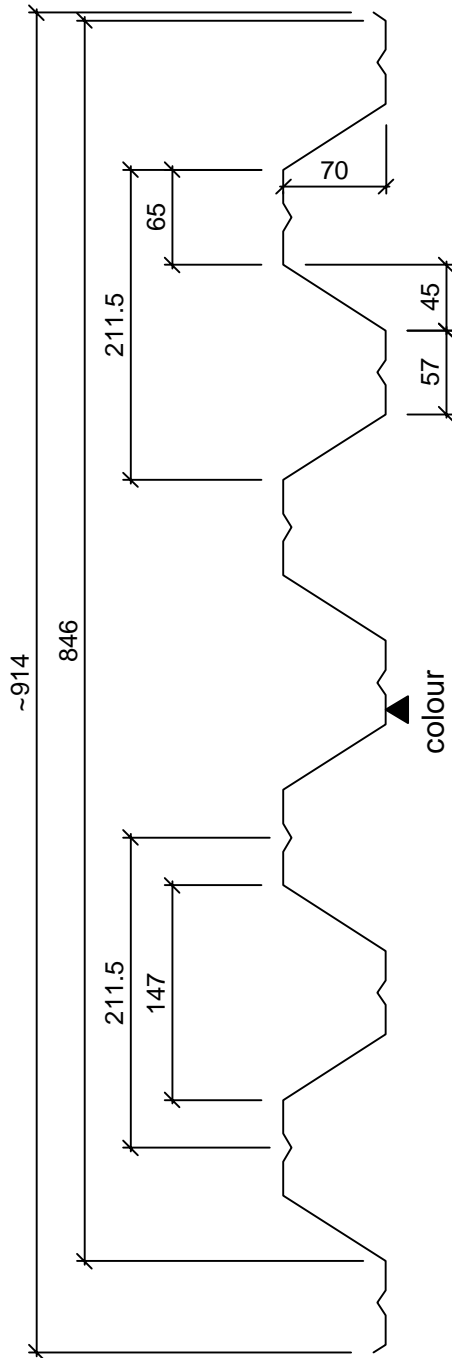




Contents of drawing

Load-bearing sheet T70-57L-846
Technical Drawing
Section - Center line

Date 16.07.2007	Rev. date 07.04.2011	Work nr. TECDA4118	Drw. nr. T70-57L-846_V	Rev. 01
Drawn by Ruukki	Rev. changed colour side			
Scale 1:5	Building .		File nr. TECD T70-57L-846	

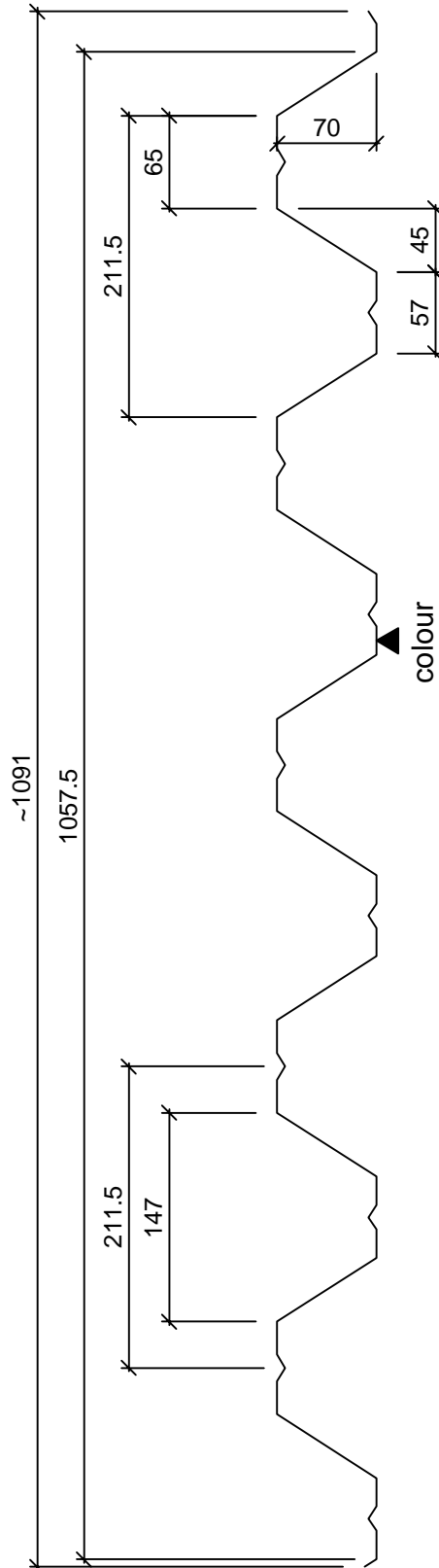




Contents of drawing

Load-bearing sheet T70-57L-1058
Technical Drawing
Section - Center line

Date 16.07.2007	Rev. date 07.04.2011	Work nr. TECDA4120	Drw. nr. T70-57L-1058_V	Rev. 01
Drawn by Ruukki	Rev. changed colour side			
Scale 1:5	Building .		File nr. TECD T70-57L-1058	





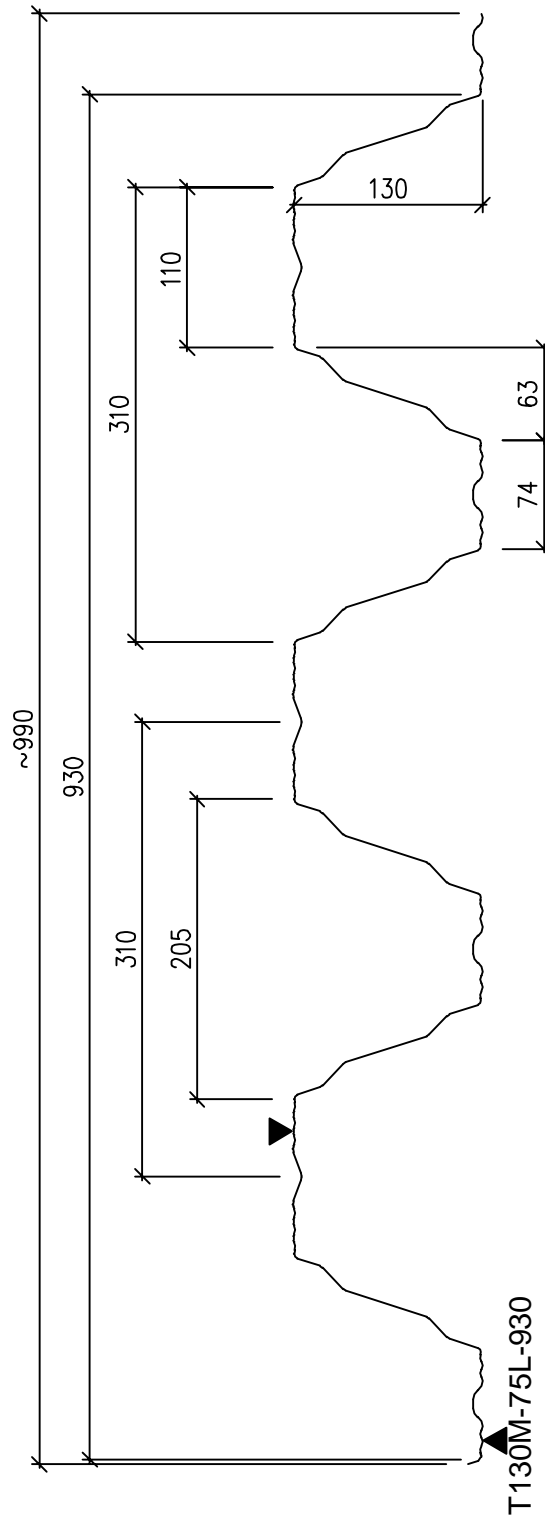
Contents of drawing

Load bearing sheet T130M-75L-930

Trapezoidal profile

Technical drawing - section

Date 16.10.2012	Rev. date dd.mm.yy	Work nr. TECDA4T130M	Rev. T130M-75L-930 Vi00
Drawn by Ruukki	Rev. 00		
Scale 1:5	Building .		File nr. TECDA4T30M

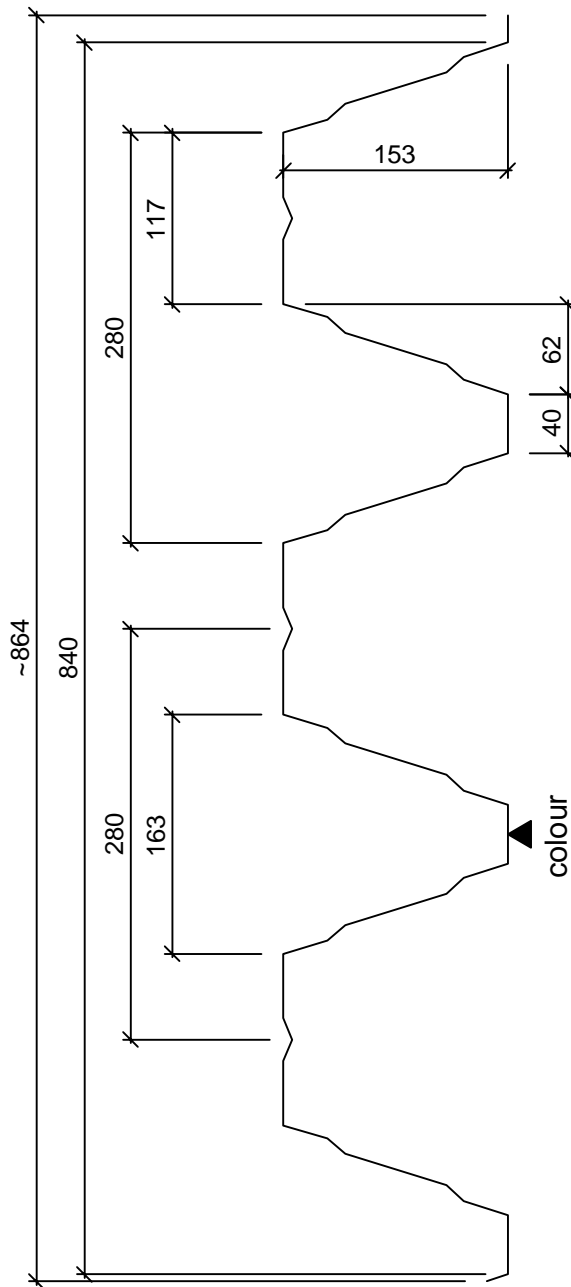




Contents of drawing

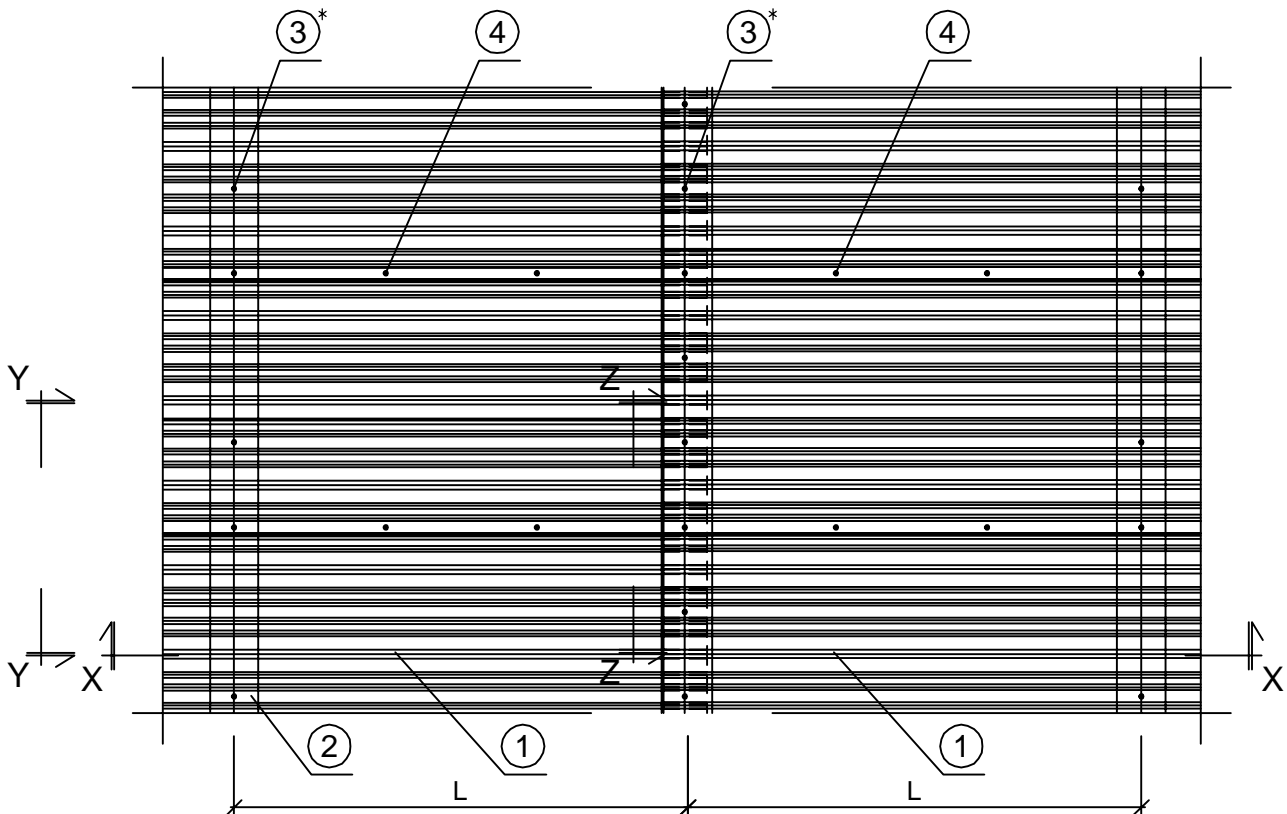
Load-bearing sheet T153-40L-840
Technical Drawing
Section - Center line

Date 16.07.2007	Rev. date 07.04.2011	Work nr. TECDA4125	Drw. nr. T153-40L-840_V	Rev. 01
Drawn by Ruukki	Rev. changed colour side			
Scale 1:5	Building .		File nr. TECD T153-40L-840	

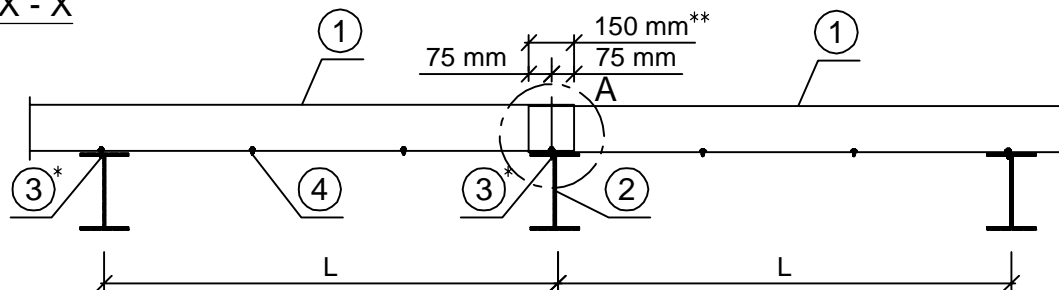


Date 18.10.2005	Rev. date .	Work nr. IN00A4001	Drw. nr. IN 01	Rev.
Drawn by Ruukki	Rev. .			
Scale 1:25	Building		File nr. IN00A4001	

Section A - A



Section X - X



Attention:

L - span length

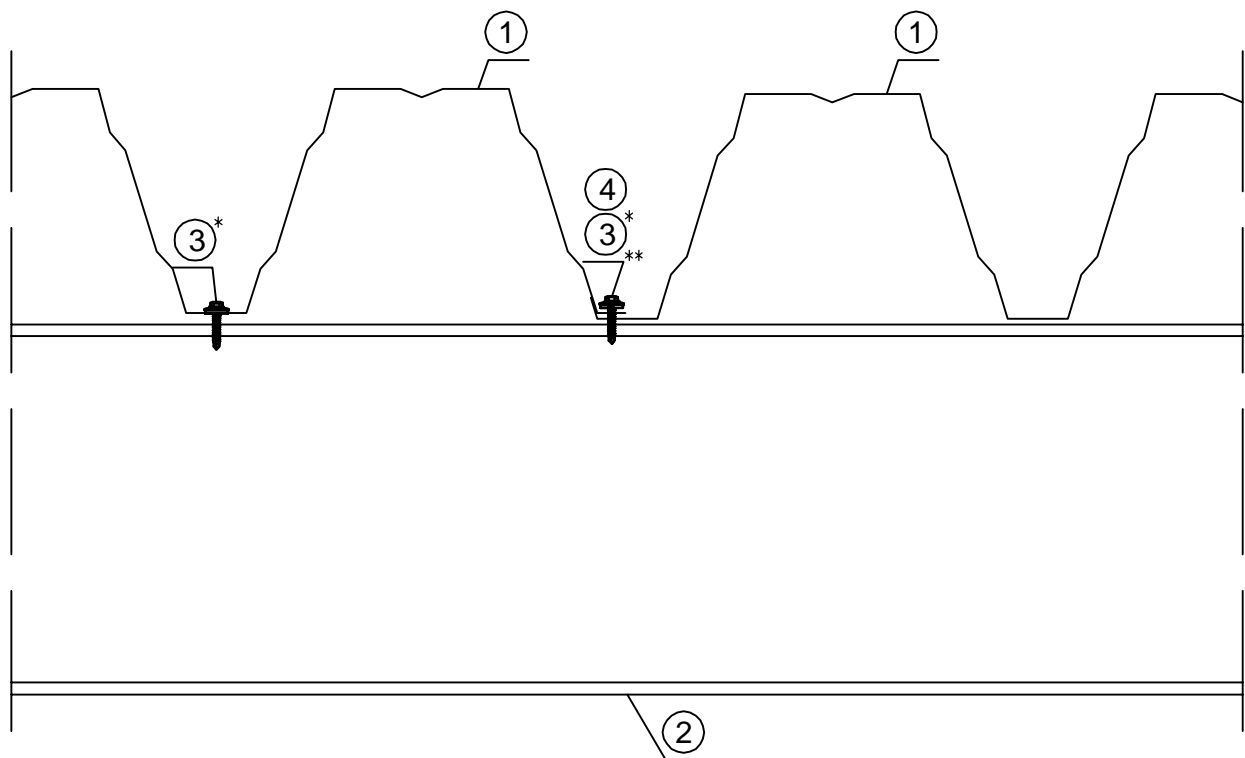
* - fasteners installed according to structural design

** - side overlapping according to structural design

1. Ruukki load-bearing sheet
 2. Primary structure according to structural design
 3. Fastener in every flange against support
 4. Fastener on sidelaps c/c max 500 mm
- Sections Y-Y, Z-Z drawing no IN 02, IN 03
Detail A drawing no IN 04

Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4002	Drw. nr. IN 02	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4002	

Section Y - Y



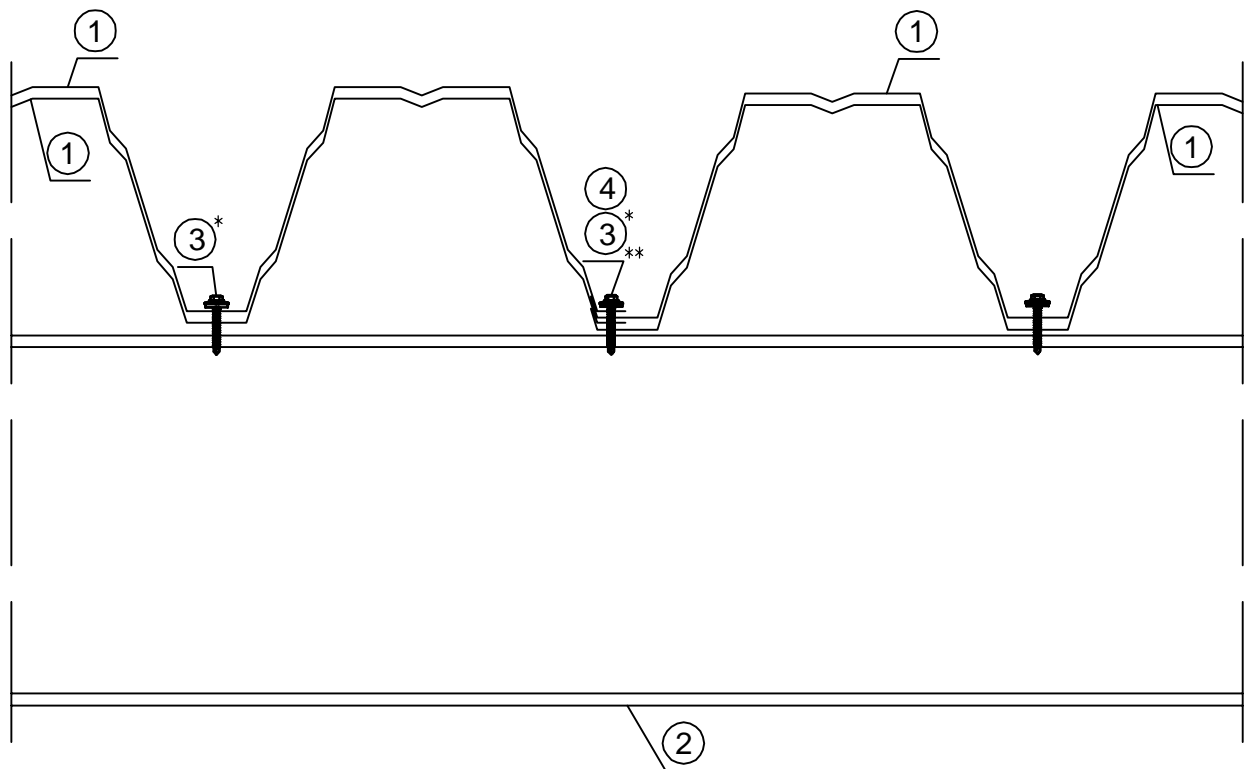
Attention:

- L - span length
- * - fasteners installed according to structural design
- ** - side overlapping according to structural design

1. Ruukki load-bearing sheet
2. Primary structure according to structural design
3. Fastener in every flange against support
4. Fastener on sidelaps c/c max 500 mm

Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4003	Drw. nr. IN 03	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4003	

Section Z - Z



Attention:

L - span length

* - fasteners installed according to structural design

** - side overlapping according to structural design

1. Ruukki load-bearing sheet

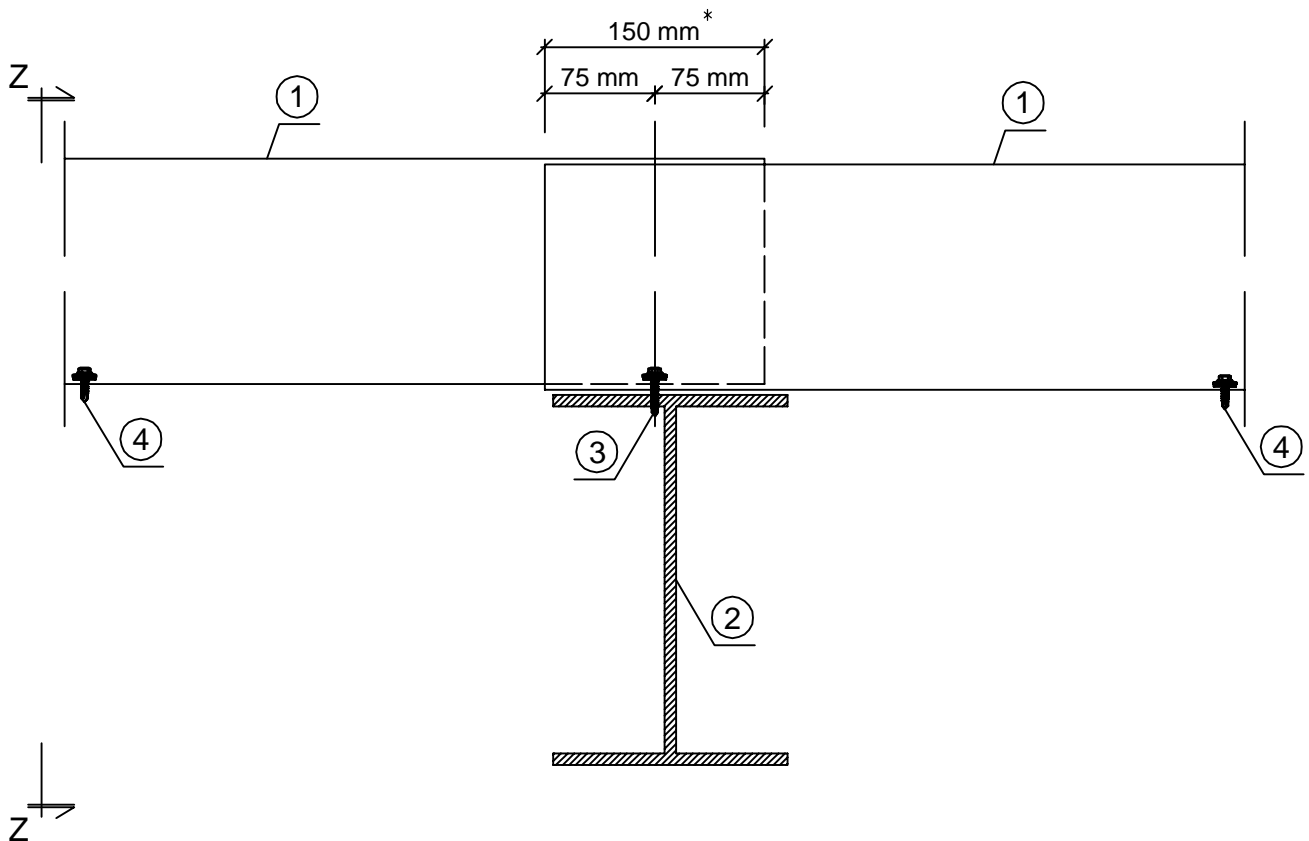
2. Primary structure according to structural design

3. Fastener in every flange against support

4. Fastener on sidelaps c/c max 500 mm

Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4004	Drw. nr. IN 04	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4004	

Detail A
Standard cross endlap of load-bearing sheets - Insulated roof *



Attention:

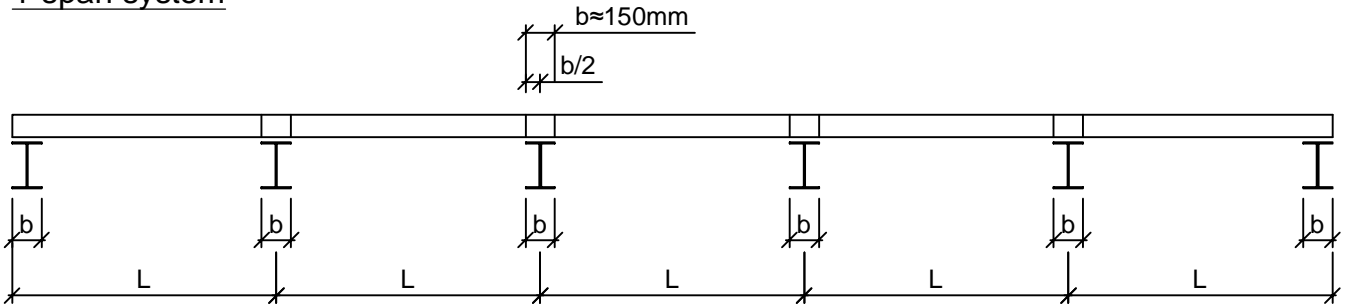
* - length and type of endlap according to structural design

1. Ruukki load-bearing sheet
 2. Primary structure according to structural design
 3. Fastener in every flange against support
 4. Fastener on sidelaps c/c max 500 mm
- Section Z-Z drawing no IN 03

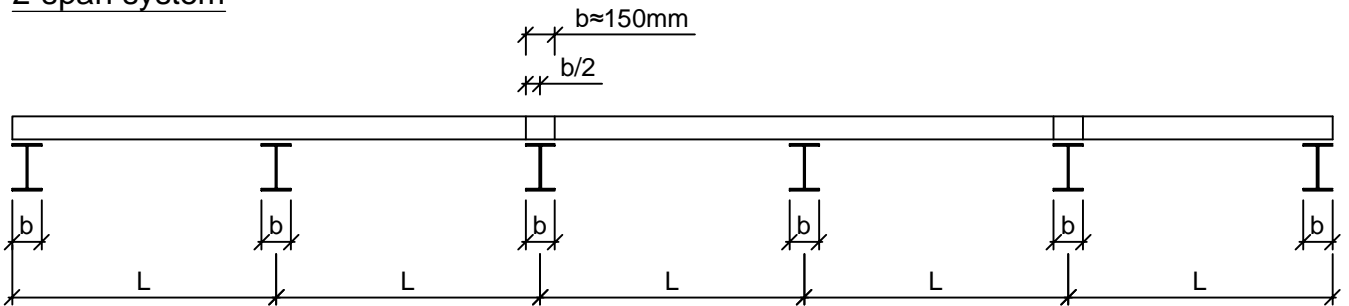
Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4005	Drw. nr. IN 05	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4005	

Standard static scheme - Insulated roof *

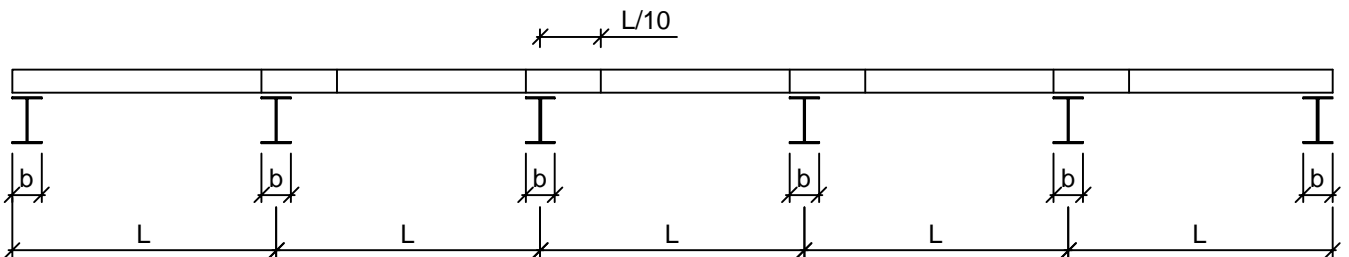
1-span system



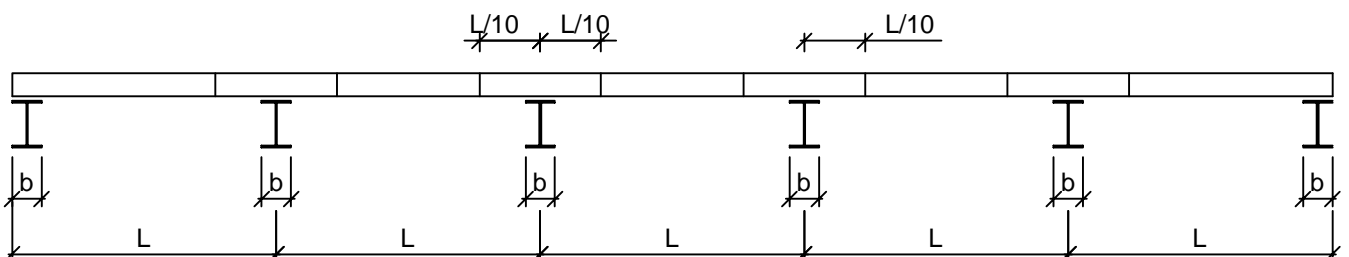
2-span system



Continuous structure - simple overlap joint



Continuous structure - double overlap joint



Attention:

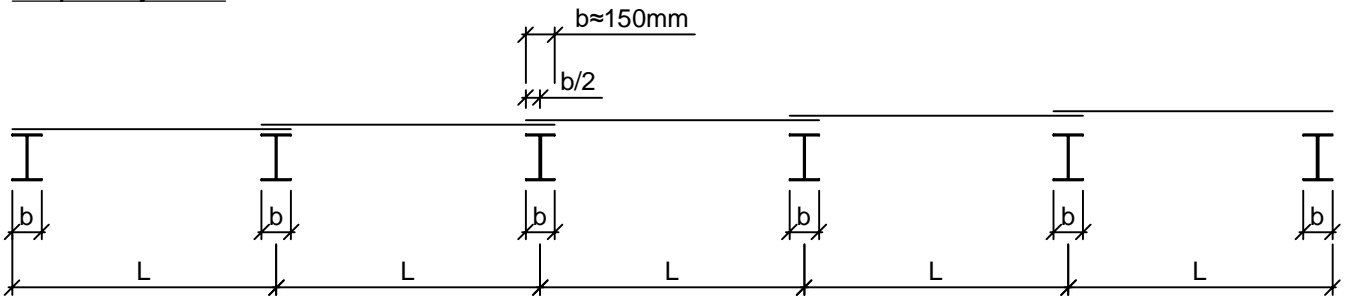
* - flange and fixing number according to structural design

1. Ruukki load-bearing sheet
2. Fastener on sidelaps c/c max 500 mm

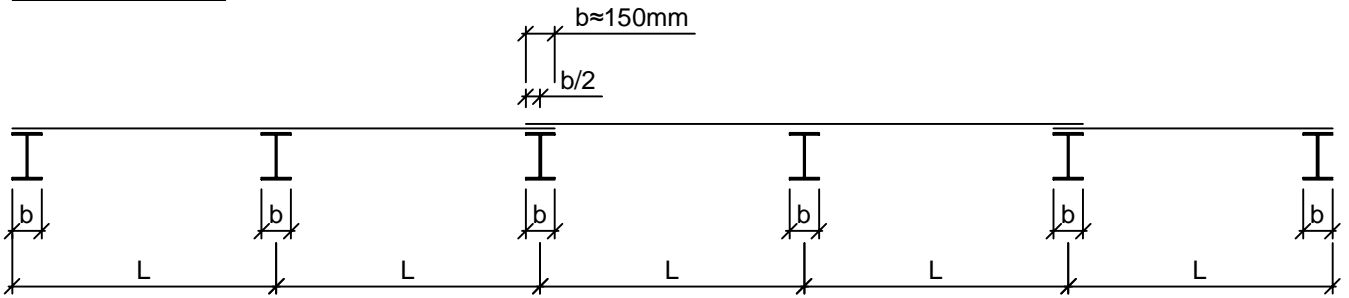
Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4006	Drw. nr. IN 06	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4006	

Standard static scheme - Insulated roof *

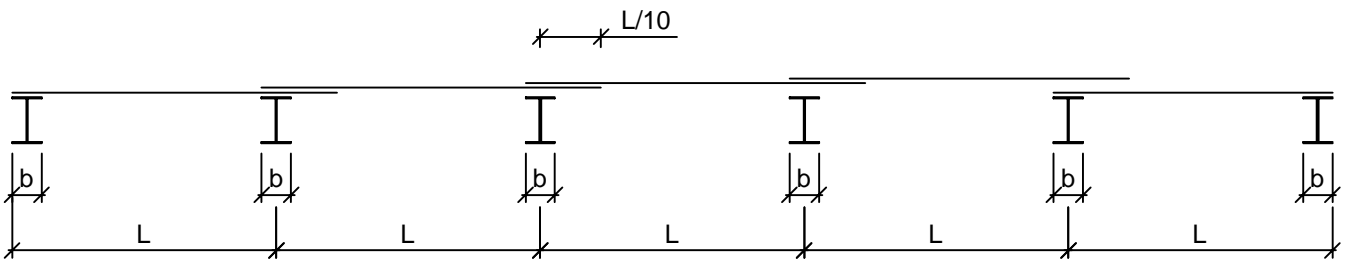
1-span system



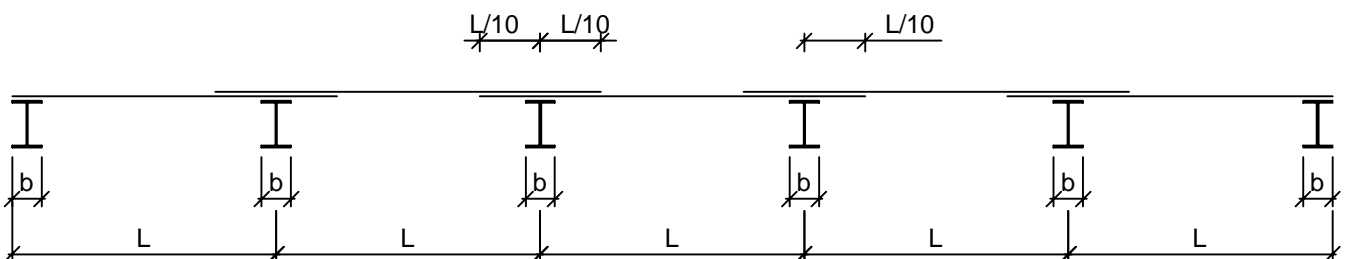
2-span system



Continuous structure - simple overlap joint **



Continuous structure - double overlap joint **



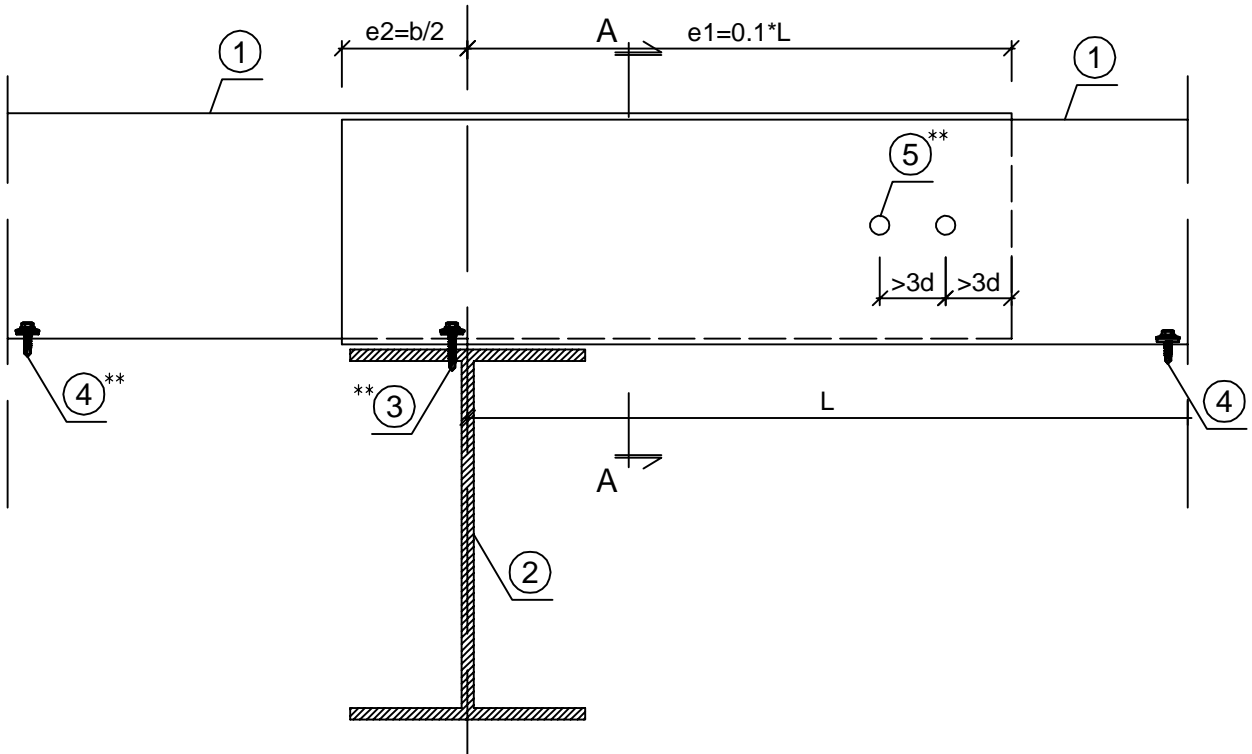
Attention:

- * - side overlapping and fastener number according to structural design
- ** - thicker sheet close to support

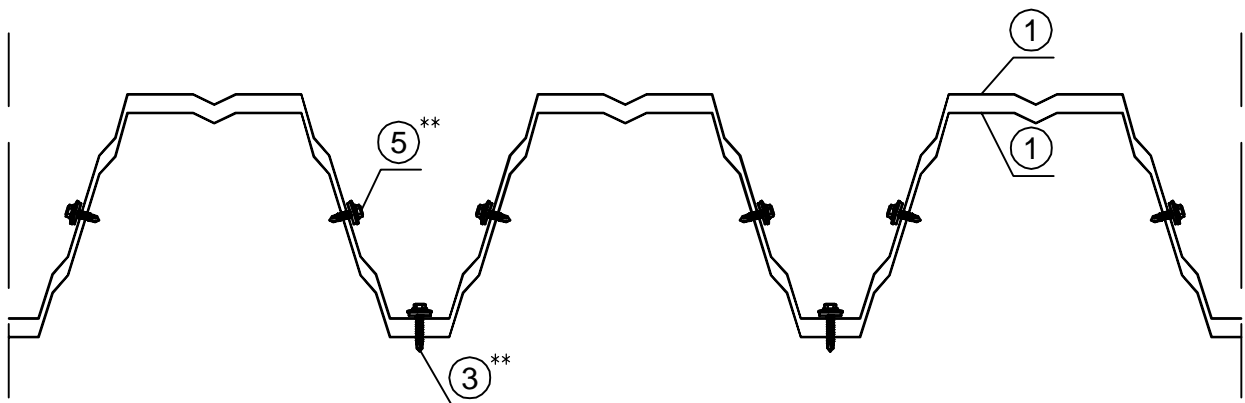
1. Ruukki load-bearing sheet
2. Fastener on sidelaps c/c max 500 mm

Date 07.04.2011	Rev. date 07.04.2011	Work nr. IN00A4007	Drw. nr. IN 07	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4007	

Standard simple overlap of load-bearing sheets - Insulated roof *



Section A - A



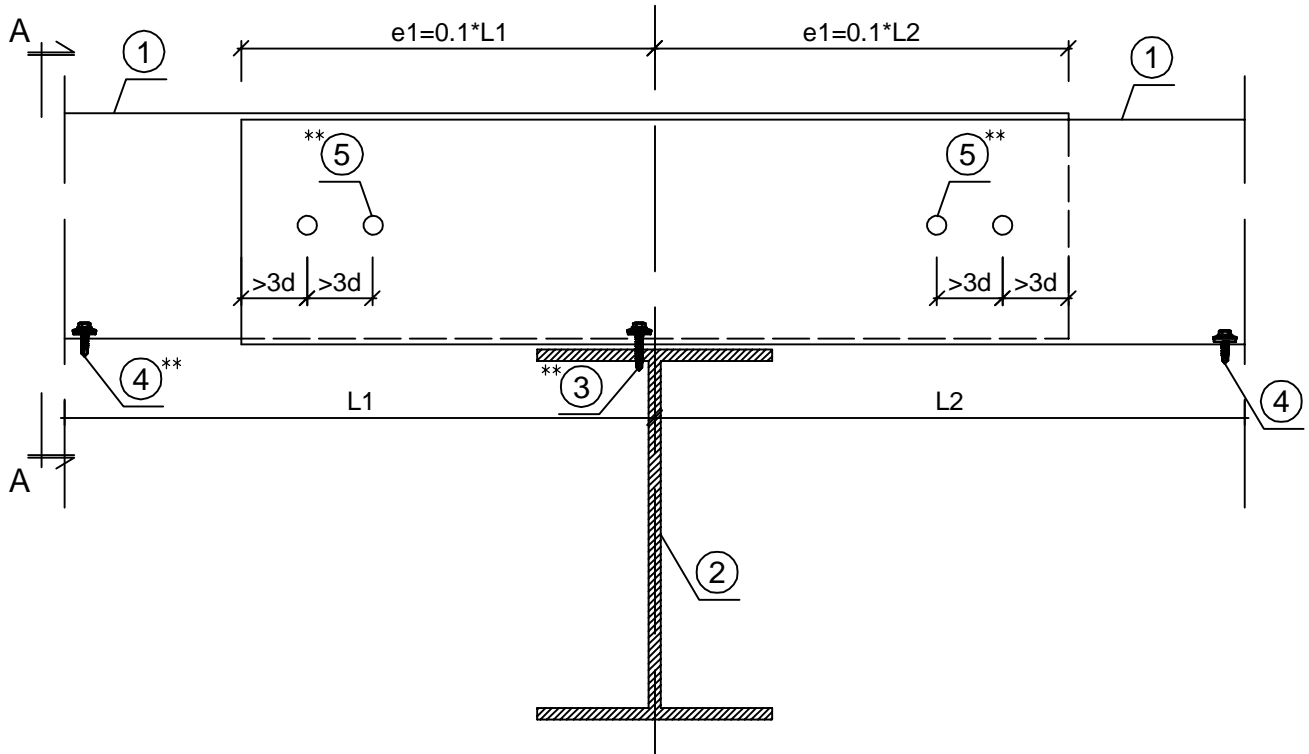
Attention:

- L - span length
- * - length and type of overlap according to structural design
- ** - number of fasteners according to structural design

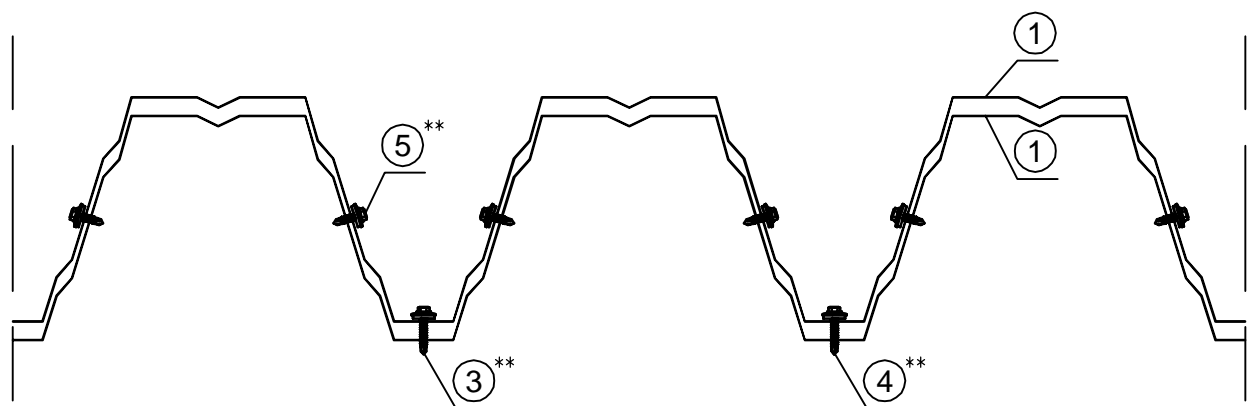
1. Ruukki load-bearing sheet
2. Primary structure according to structural design
3. Fastener in every flange against support
4. Fastener on sidelaps c/c max 500 mm
5. Fastener in the web

Date 07.04.2011	Rev. date 07.04.2011	Work nr. IN00A4008	Drw. nr. IN 08	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4008	

Standard simple overlap of load-bearing sheets - Insulated roof *



Section A - A



Attention:

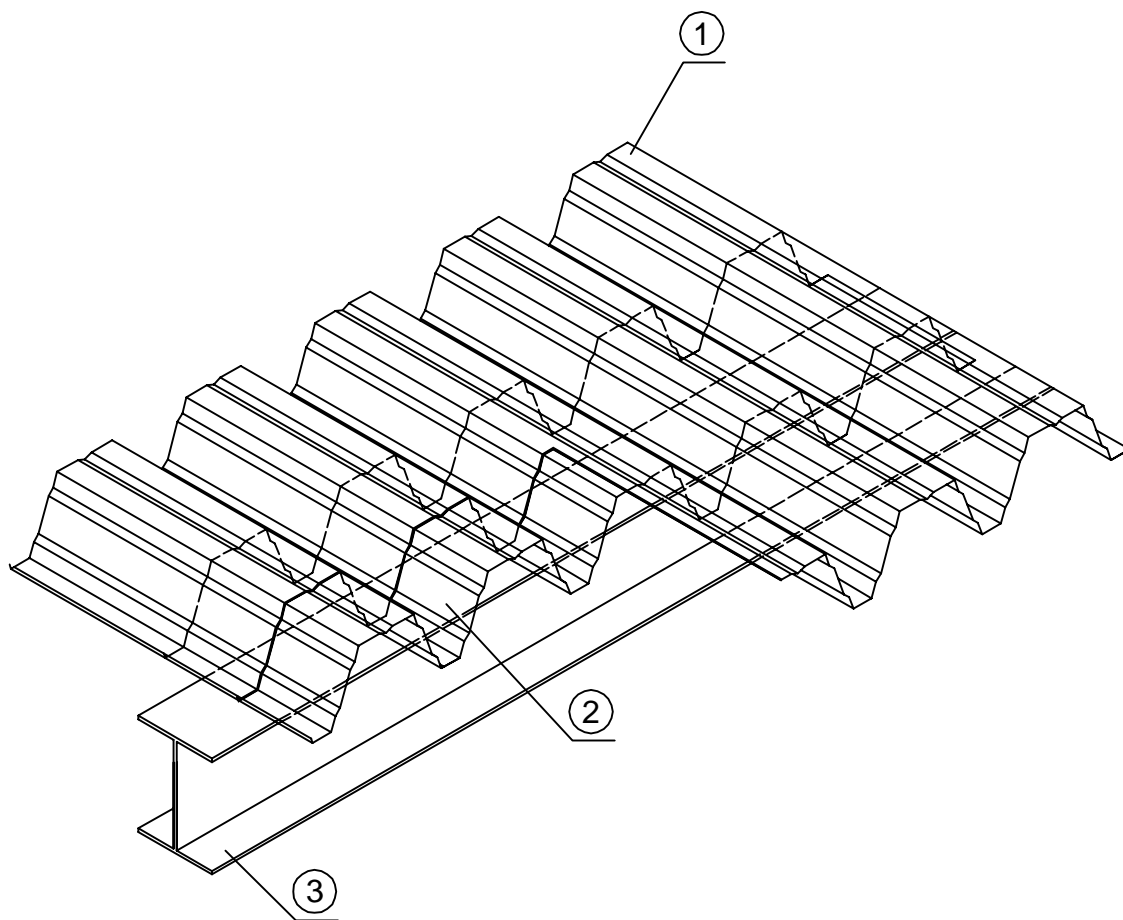
- L - span length
- * - length and type of overlap according to structural design
- ** - number of fasteners according to structural design

1. Ruukki load-bearing sheet
2. Primary structure according to structural design
3. Fastener in every flange against support
4. Fastener on sidelaps c/c max 500 mm
5. Fastener in the web



Contents of drawing
Load-bearing sheet - Insulated roof
Erection - Supporting piece

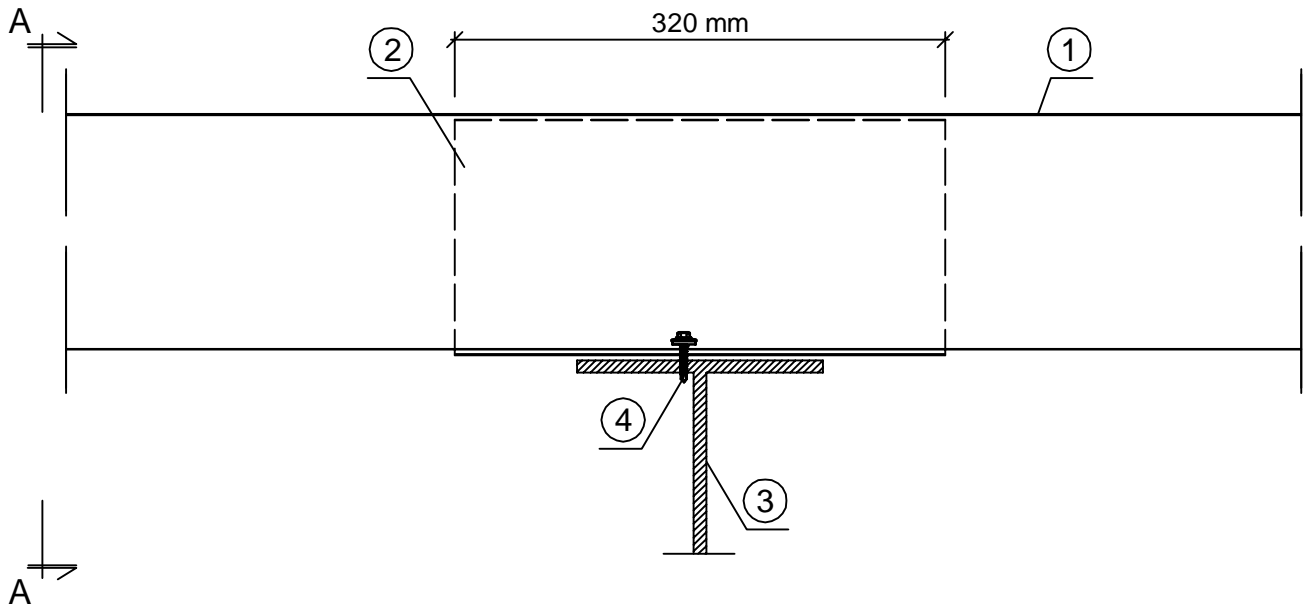
Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4009	Drw. nr. IN 09	Rev. 01
Drawn by Ruukki	Rev.			
Scale	Building		File nr. IN00A4009	



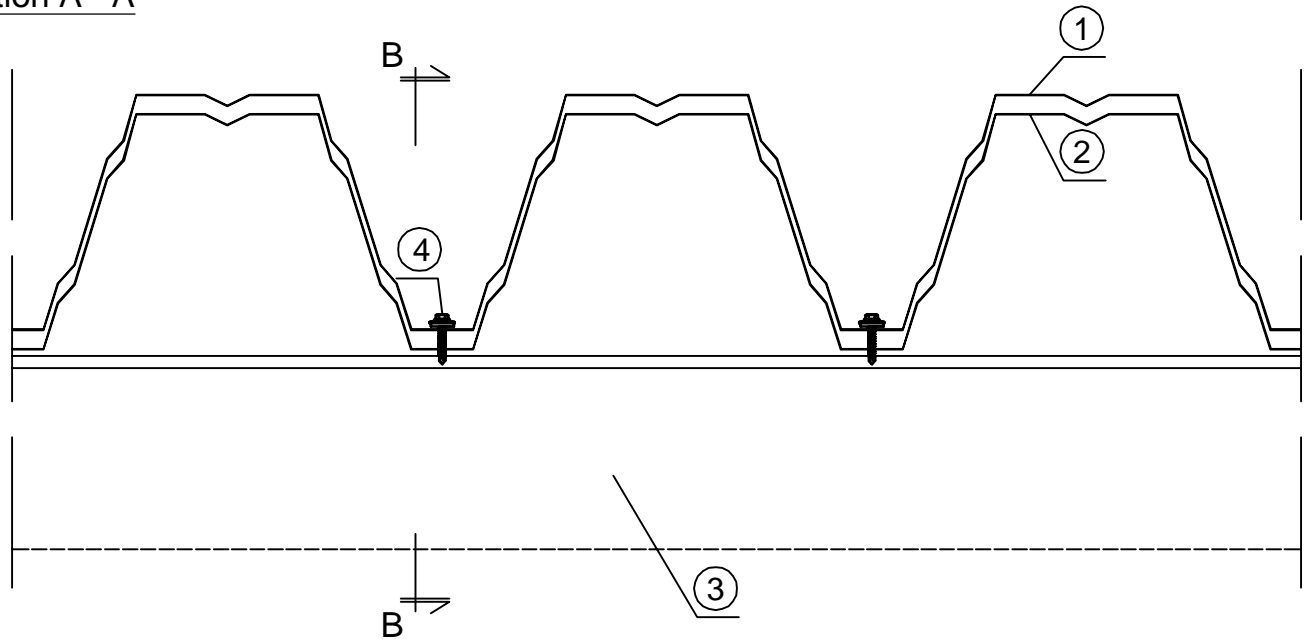
1. Ruukki load-bearing sheet
2. Supporting piece 320mm length - Ruukki profile
3. Primary structure according to structural design

Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4010	Drw. nr. IN 10	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4010	

Section B - B



Section A - A

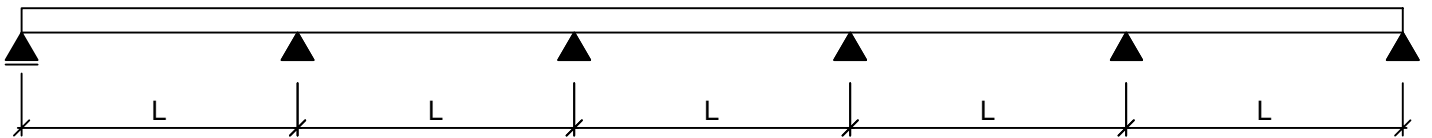


1. Ruukki load-bearing sheet
2. Supporting piece 320mm length - Ruukki profile
3. Primary structure according to structural design
4. Fastener in every flange against support

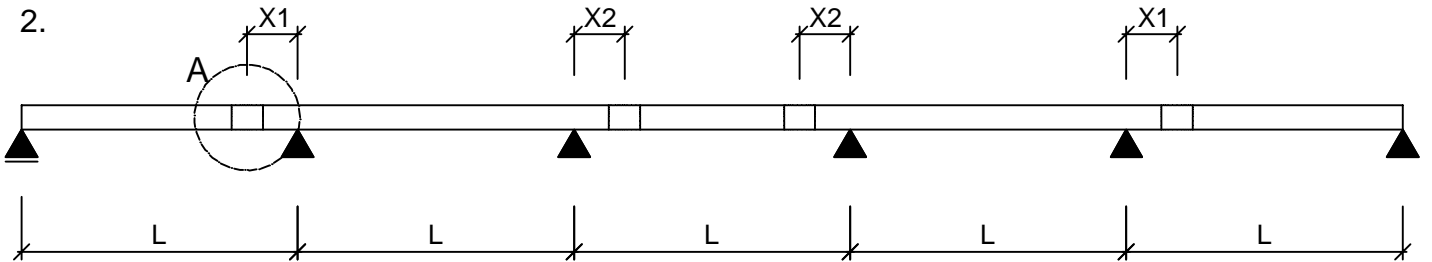
Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4011	Drw. nr. IN 11	Rev. 01
Drawn by Ruukki	Rev.			
Scale .	Building		File nr. IN00A4011	

Static scheme

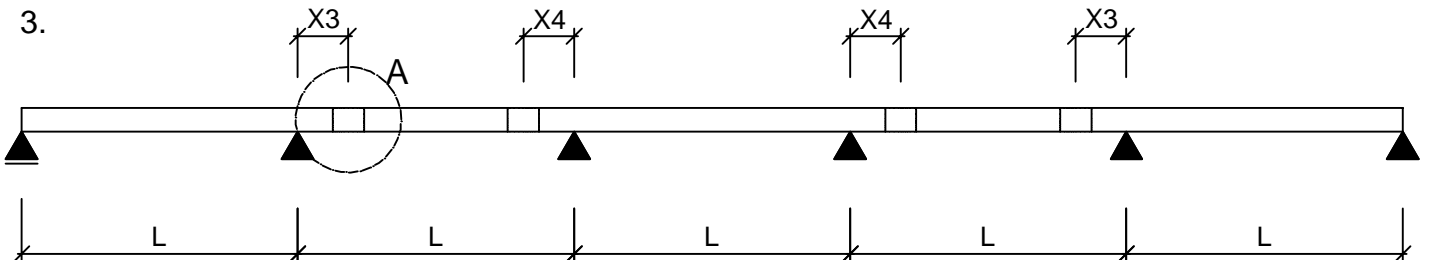
1.



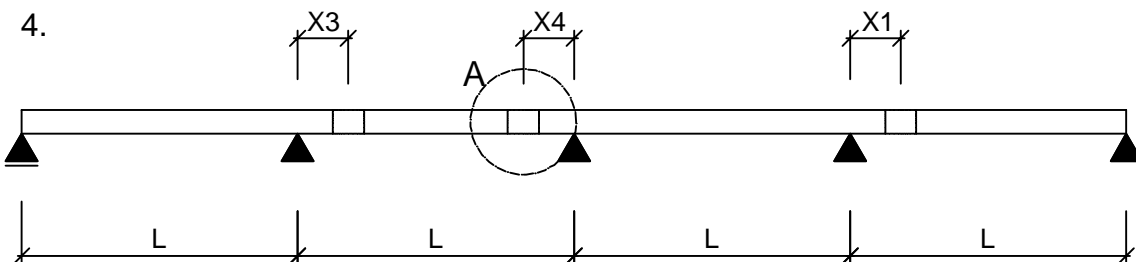
2.



3.



4.



Attention:

$$X1 = 0,125 \times L$$

$$X2 = 0,146 \times L$$

$$X3 = 0,204 \times L$$

$$X4 = 0,157 \times L$$

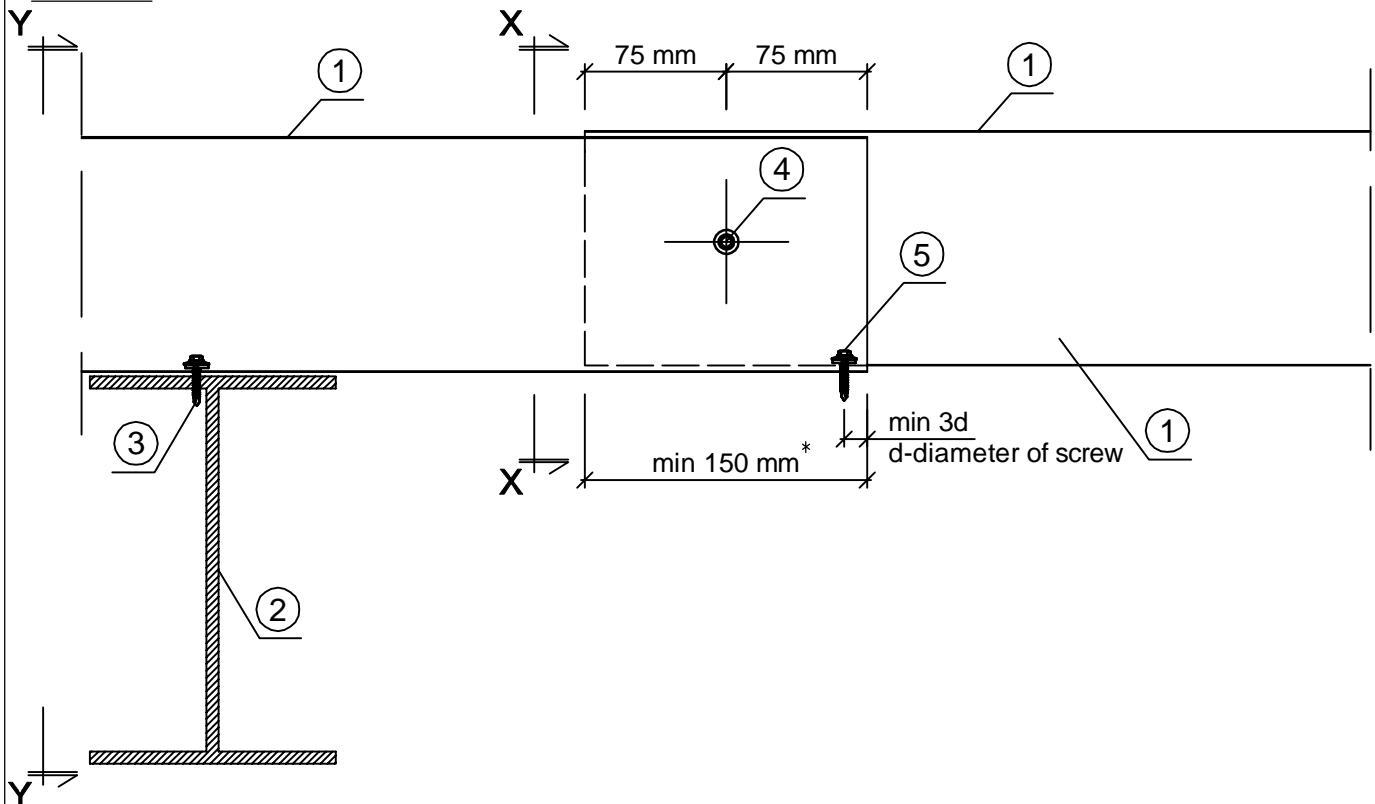
L - span length

Detail A drawing no IN 12

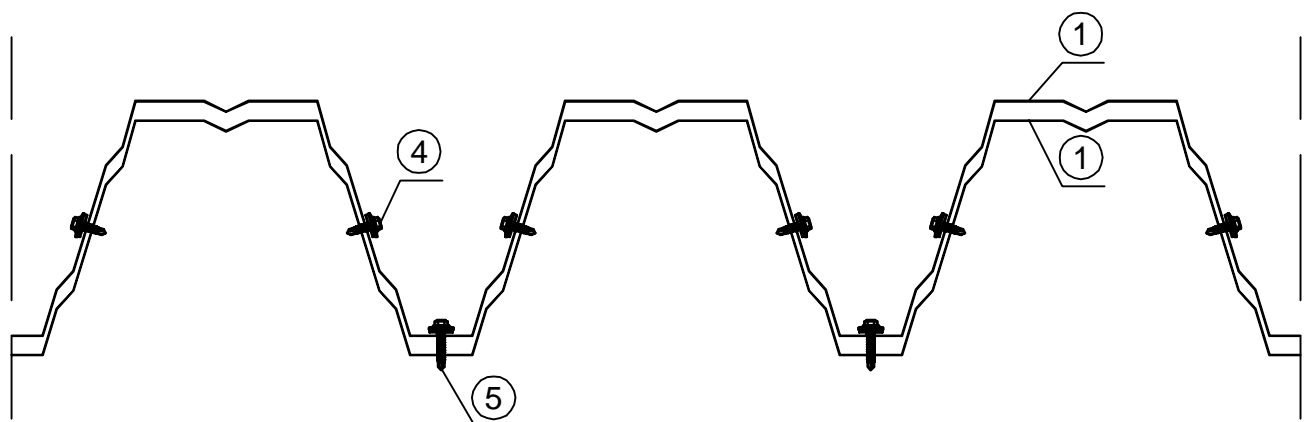
Date 12.09.2005	Rev. date 07.04.2011	Work nr. IN00A4012	Drw. nr. IN 12	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4012	

Standard endlap of load-bearing sheets - Gerber system - insulated roof*

Detail A



Section X - X



Attention:

* - lenght, type of endlap, number of screws according to structural design

- 1. Ruukki load-bearing sheet
- 2. Primary structure according to structural design
- 3. Fastener in every flange against support
- 4. Fastener
- 5. Fastener for estetical reasons

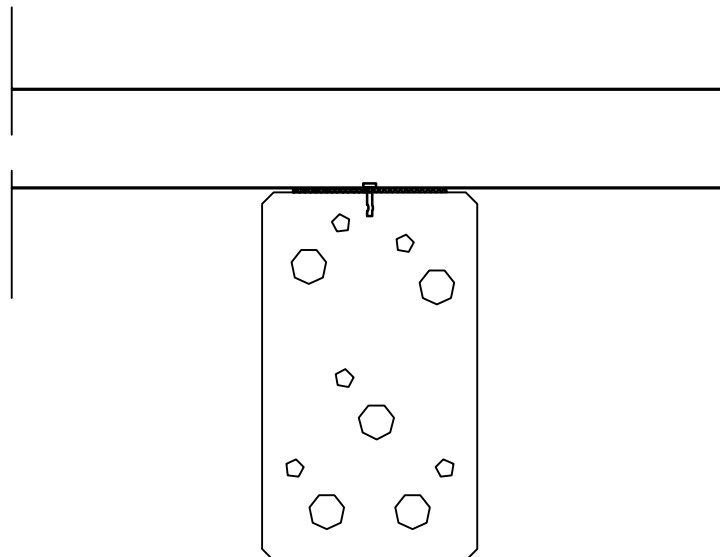
Section Y-Y drawing no IN 02



Contents of drawing
Load-bearing sheets - structural detail
Fastening to concrete

12.09.2005	Rev. date 07.04.2011	Work nr. IN00A4013	Drw. nr. IN 13	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4013	

Fastening of load-bearing sheet to concrete



Attention:

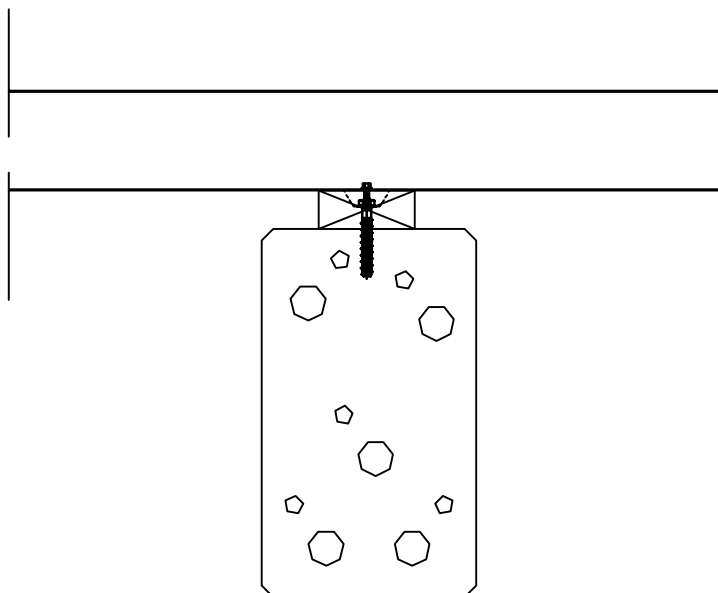
1. Fastening directly to concrete must be avoided
2. E.g. 5 mm thick sealing strip is installed between load-bearing sheet and concrete
3. Fastening of sheet can be done with e.g. spike metallic anchor + sealing
4. The quality and number of fasteners according to structural designer specification



Contents of drawing
Load-bearing sheets - structural detail
Fastening to concrete/wood

12.09.2005	Rev. date 07.04.2011	Work nr. IN00A4014	Drw. nr. IN 14	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4014	

Fastening of load-bearing sheet to concrete/wood

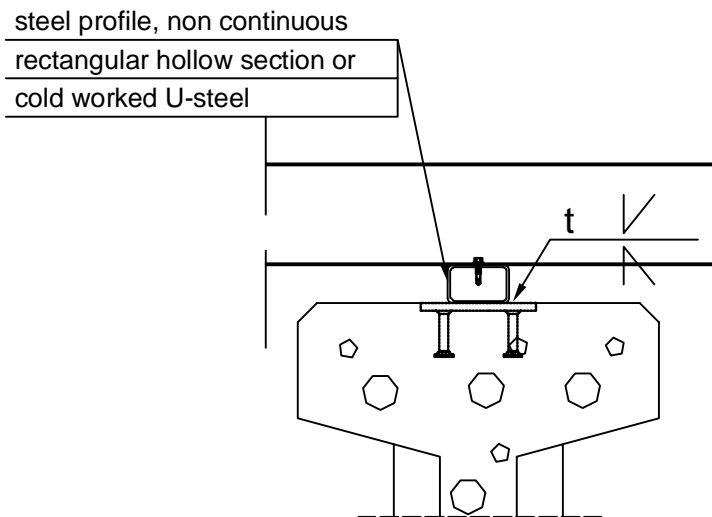


Attention:

1. Wood is installed onto concrete structure, fastening e.g. with wedge anchors
2. Load-bearing sheet is fastened to wood e.g. with self-drilling wood screws
3. The quality and number of fasteners according to structural designer specification

12.09.2005	Rev. date 07.04.2011	Work nr. IN00A4015	Drw. nr. IN 15	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4015	

Fastening of load-bearing sheet to prestressed concrete structures



Attention:

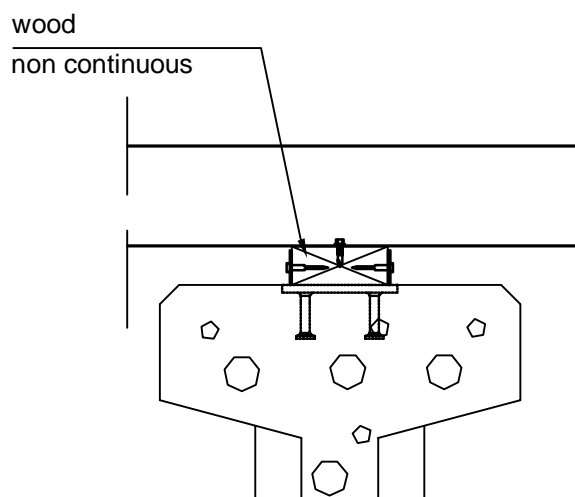
1. Steel profile is installed onto concrete structure, fastening to fastening plates in the prestressed concrete structure
2. Load-bearing sheet is fastened to steel profile with e.g. self-drilling screws
3. The quality and number of fasteners according to structural designer specification



Contents of drawing
Load-bearing sheets - structural detail
Fastening to prestressed concrete structures

12.09.2005	Rev. date 07.04.2011	Work nr. IN00A4016	Drw. nr. IN 16	Rev. 01
Drawn by Ruukki	Rev.			
Scale 1:5	Building		File nr. IN00A4016	

Fastening of load-bearing sheet to prestressed concrete structures



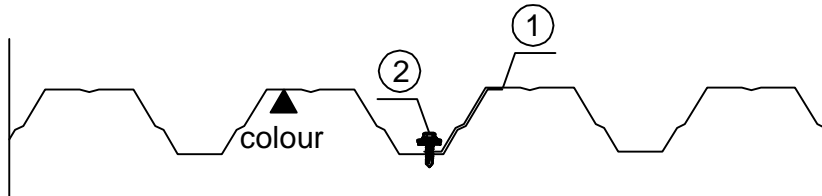
Attention:

1. Wood is installed onto concrete structure, fastening to steel plates welded to fastening plates in the prestressed concrete structure with coach screws
2. Load-bearing sheet is fastened to wood with e.g. self-drilling wood screws
3. The quality and number of fasteners according to structural designer specification

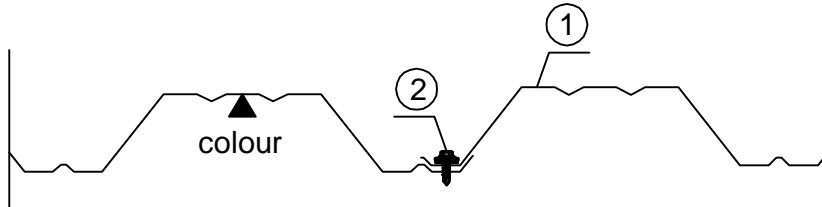
Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4017	Drw. nr. IN 17	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4017	

Standard sidelap of load-bearing sheets - Insulated roof*

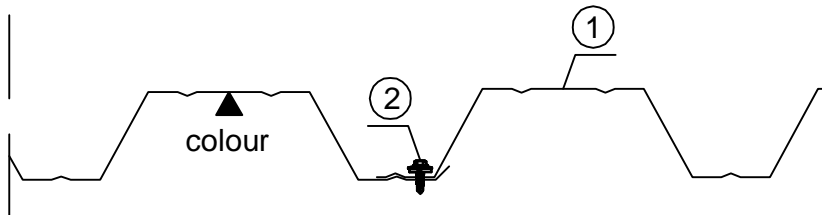
Profile T45



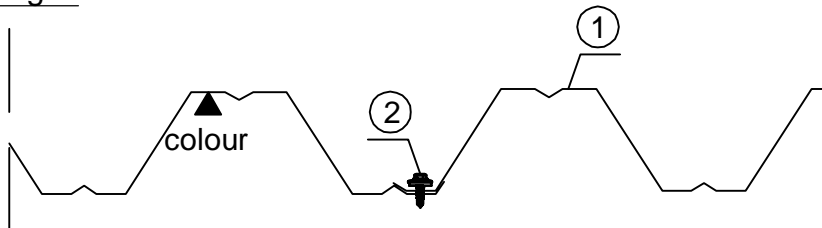
Profile T55



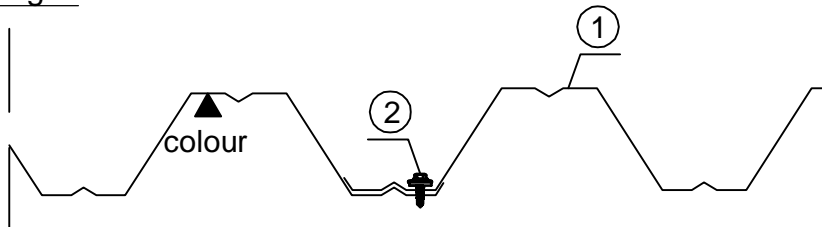
Profile T60



Profile T70 - 5-flanges



Profile T70 - 4-flanges



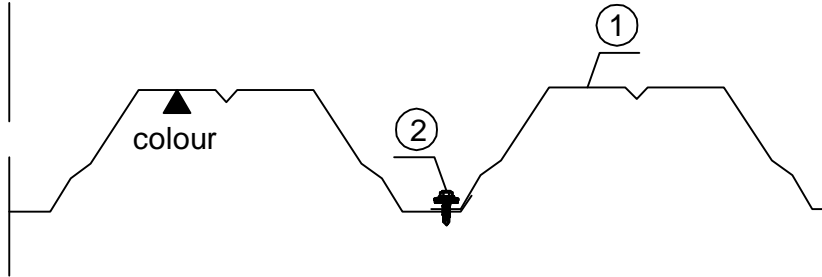
* - flange and fastener number according to structural design

1. Ruukki load-bearing sheet
2. Fastener on sidelaps c/c max 500 mm

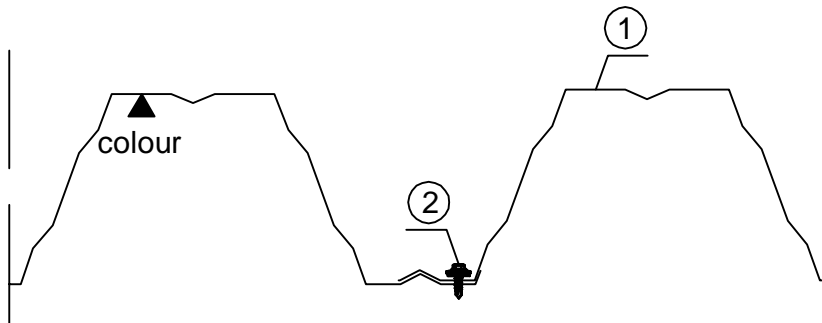
Date 18.10.2005	Rev. date 07.04.2011	Work nr. IN00A4018	Drw. nr. IN 18	Rev. 01
Drawn by Ruukki	Rev. .			
Scale 1:5	Building		File nr. IN00A4018	

Standard sidelap of load bearing sheets - Insulated roof *

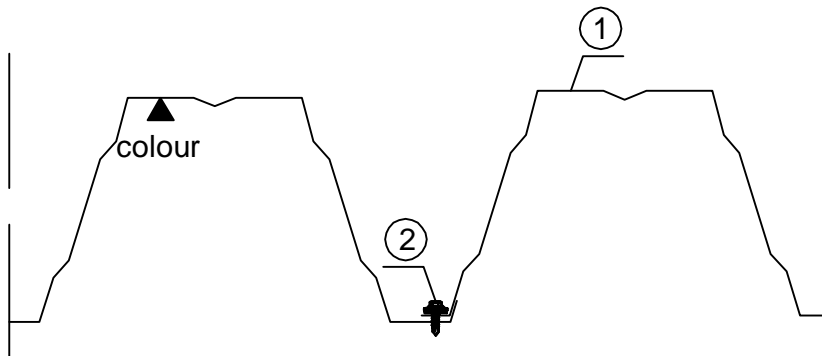
Profile T85



Profile T130



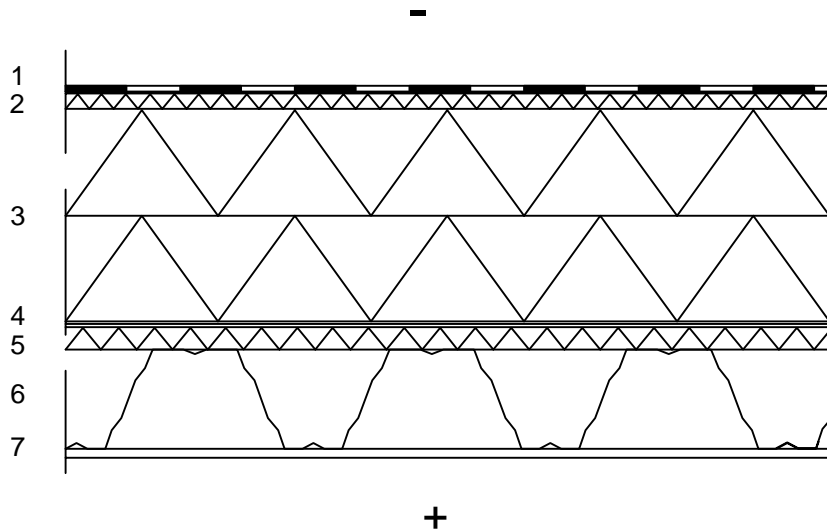
Profil 153 A



* - flange and fastener number according to structural design

1. Ruukki load-bearing sheet
2. Fastener on sidelaps c/c max 500 mm

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 19	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4019	



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 THERMAL INSULATION, SUITED FOR WATER INSULATION'S BASE
- 3 THERMAL INSULATION
- 4 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING
- 5 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER
- 6 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING
- 7 FIRE PROTECTION, WHEN NECESSARY

INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

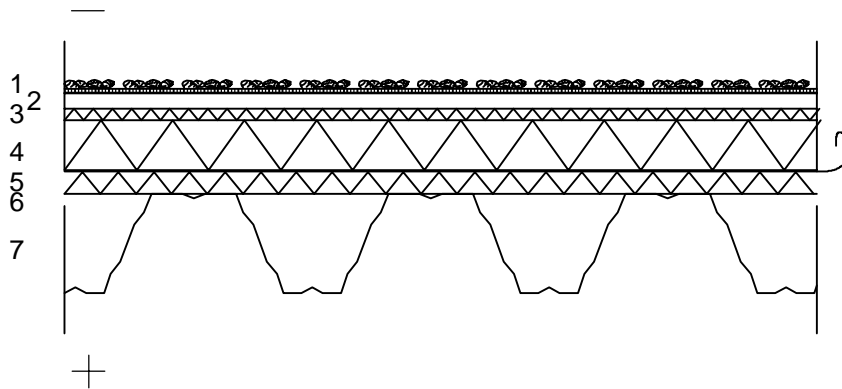
For acoustic purposes a load-bearing structure with acoustic perforation can be chosen. In which case it has to be made sure with a separate dust suppression cloth, that the load-bearing sheet's upper damping insulation is dustless.

Structure's fire resistance time can be influenced with underneath covering. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

Flat roofs with inclinations 1:20-1:40

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 20	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4020	



STRUCTURAL LAYERS

- 1 PROTECTIVE GRAVEL, $d= 8...20, \geq 35 \text{ kg/m}^2$
- 2 WATER INSULATION
- 3 THERMAL INSULATION
- 4 THERMAL INSULATION, SLOTTED
- 5 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING
- 6 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER
- 7 LOAD-BEARING PROFILED SHEET WITH ACOUSTIC PERFORATION ACCORDING TO CONSTRUCTION DRAWING

INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

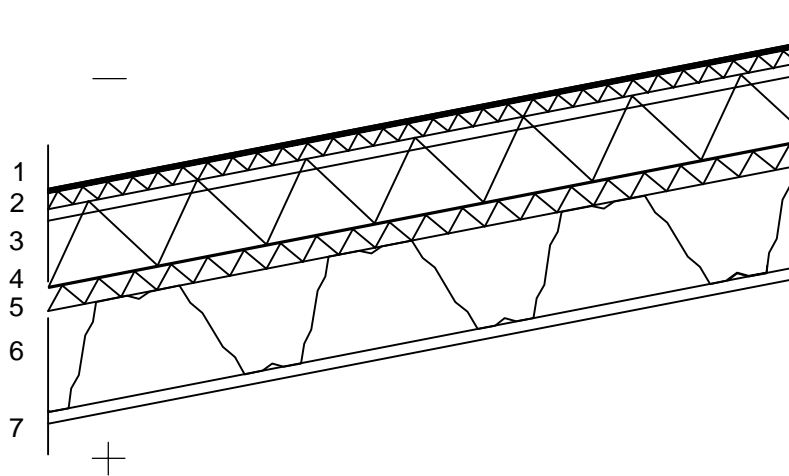
For acoustic purposes a load-bearing structure with acoustic perforation can be chosen. In which case it has to be made sure with a separate dust suppression cloth, that the load-bearing sheet's upper damping insulation is dustless.

Structure's fire resistance time can be influenced with underneath covering. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

Flat roofs with inclinations 1:20-1:40

Date 15.12.2000	Rev. date 04.08.2021	Work nr. .	Drw. nr. IN 21	Rev. 02
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4021	



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 THERMAL INSULATION
- 3 THERMAL INSULATION, SLOTTED
- 4 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING
- 5 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER
- 6 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING
- 7 FIRE PROTECTION, WHEN NECESSARY

INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

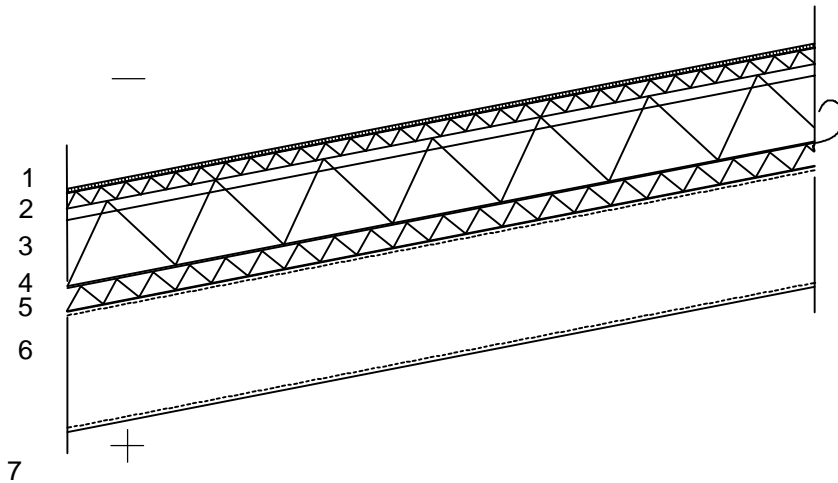
For acoustic purposes a load-bearing structure with acoustic perforation can be chosen. In which case it has to be made sure with a separate dust suppression cloth, that the load-bearing sheet's upper damping insulation is dustless.

Structure's fire resistance time can be influenced with underneath covering. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

Double pitched roofs or similar with inclinations $\geq 1:40$

Date 15.12.2000	Rev. date 04.08.2021	Work nr. .	Drw. nr. IN 22	Rev. 02
Drawn by Ruukki	Rev. ..		File nr. IN00A4022	
Scale :	Building			



STRUCTURAL LAYERS	<ol style="list-style-type: none"> 1 WATER INSULATION 2 THERMAL INSULATION 3 THERMAL INSULATION, SLOTTED 4 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING 5 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER 6 LOAD-BEARING SHEET WITH ACOUSTIC PERFORATION ACCORDING TO CONSTRUCTION DRAWING 7 SECONDARY STRUCTURE ACCORDING TO CONSTRUCTION DRAWING
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INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

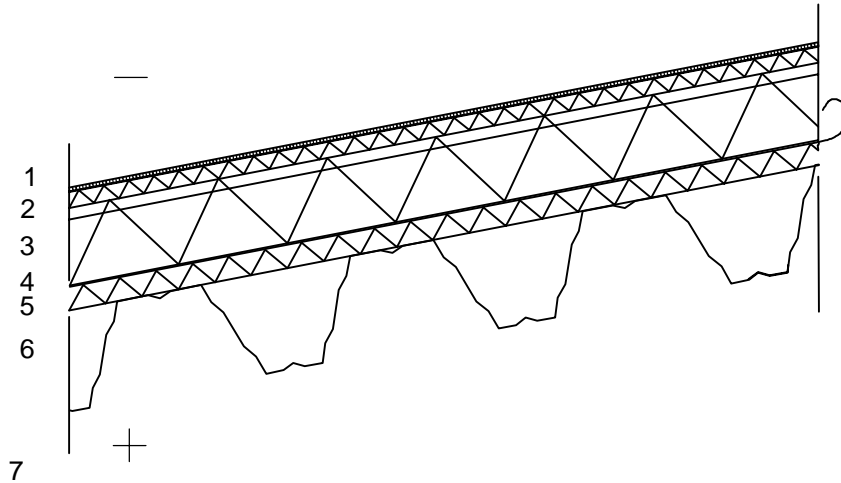
For acoustic purposes a load-bearing structure with acoustic perforation can be chosen. In which case it has to be made sure with a separate dust suppression cloth, that the load-bearing sheet's upper damping insulation is dustless.

Structure's fire resistance time can be influenced with underneath covering. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

Shortening reverberation time
Double pitched roofs or similar with inclinations $\geq 1:40$

Date 15.12.2000	Rev. date 04.08.2021	Work nr. .	Drw. nr. IN 23	Rev. 02
Drawn by Ruukki	Rev. ..		File nr. IN00A4023	
Scale :	Building			



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 THERMAL INSULATION
- 3 THERMAL INSULATION, SLOTTED
- 4 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING
- 5 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER
- 6 LOAD-BEARING PROFILED SHEET WITH ACOUSTIC PERFORATION ACCORDING TO CONSTRUCTION DRAWING
- 7 SECONDARY STRUCTURE ACCORDING TO CONSTRUCTION DRAWING

INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

For acoustic purposes a load-bearing structure with acoustic perforation can be chosen. In which case it has to be made sure with a separate dust suppression cloth, that the load-bearing sheet's upper damping insulation is dustless.

Structure's fire resistance time can be influenced with underneath covering. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

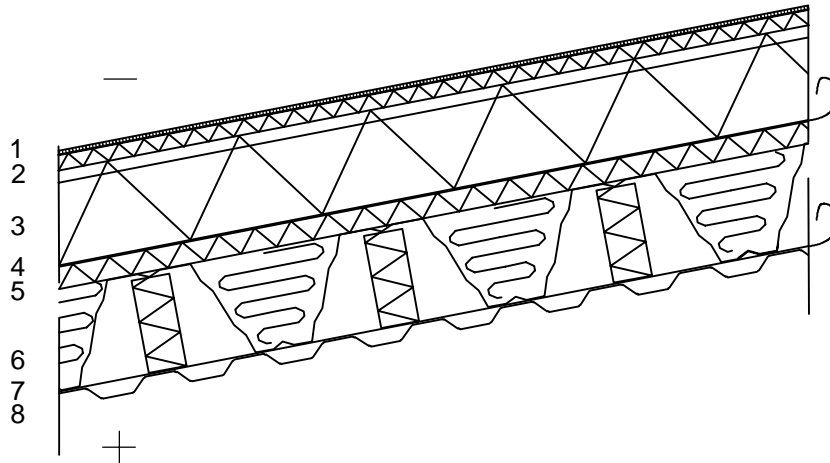
Shortening reverberation time
Double pitched roofs or similar with inclinations $\geq 1:40$



Contents of drawing

Load-bearing sheet
Structural detail
Double pitched roofs or similar - 4

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 24	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4024	



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 THERMAL INSULATION
- 3 THERMAL INSULATION, SLOTTED
- 4 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING
- 5 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER
- 6 LOAD-BEARING PROFILED SHEET WITH ACOUSTIC PERFORATION ACCORDING TO CONSTRUCTION DRAWING, WOOL BACKFILL IN FLANGES
- 7 DUST SUPPRESSION CLOTH
- 8 PERFORATED LOW PROFILE

INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

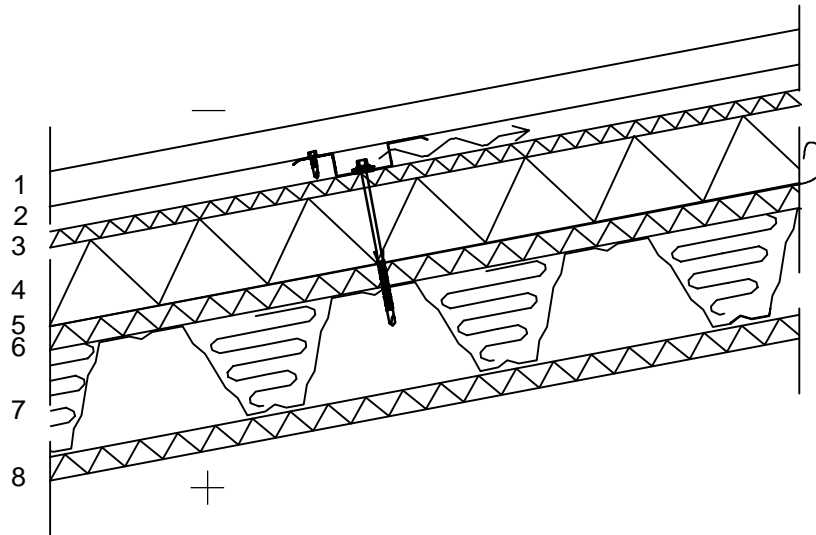
For the acoustic purposes, a load-bearing structure with acoustic perforation can be chosen. Also, acoustic infill is recommended to confirm the required absorption class (A-E). A separate dust suppression cloth is recommended to prevent any insulation wool dust from entering the inside room.

Structure's fire resistance time can be influenced with underneath covering. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

Shortening reverberation time
Double pitched roofs or similar with inclinations $\geq 1:40$

Date 15.12.2000	Rev. date 04.08.2021	Work nr. .	Drw. nr. IN 25	Rev. 02
Drawn by Ruukki	Rev. ..		File nr. IN00A4025	
Scale :	Building			



STRUCTURAL LAYERS	<ol style="list-style-type: none"> 1 WATER INSULATION, PROFILED SHEET, ANTI-CONDENSATION COAT ON LOWER SURFACE 2 VENTILATING STEEL BATTEN 3 THERMAL INSULATION 4 THERMAL INSULATION 5 VAPOUR BARRIER, NET REINFORCED ALUMINIUM COATED PLASTIC, OVERLAPPING 200 mm + TAPING 6 THERMAL INSULATION, LOAD BEARING INSULATION, THAT SUPPORTS VAPOUR BARRIER 7 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING (ACOUSTIC PERFORATION, WOOL BACKFILL IN FLANGES, WHEN NECESSARY) 8 FIRE PROTECTION, WHEN NECESSARY
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INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

For acoustic purposes a load-bearing structure with acoustic perforation can be chosen. In which case it has to be made sure with a separate dust suppression cloth, that the load-bearing sheet's upper damping insulation is dustless. The fire protection wool also acts like acoustic insulation.

Structure's fire resistance time can be influenced with underneath covering. Also the acoustic infill increases the fire resistance time. Structural designer determines the covering according to the required fire resistance time.

APPLICATIONS

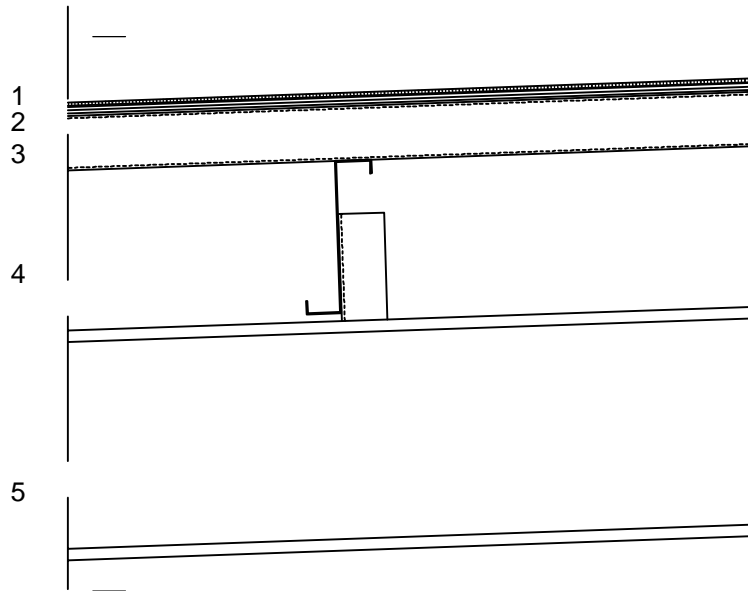
Double pitched roofs or similar with inclinations $\geq 1:10$



Contents of drawing

Load-bearing sheet
Structural detail
Warehouse roofs - 1

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 26	Rev. 01
Drawn by Ruukki	Rev. ..		File nr. IN00A4026	
Scale :	Building			



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 WEATHERING PLYWOOD
- 3 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING, ANTI-CONDENSATION COATING ON THE SHEET'S LOWER SURFACE, WHEN NECESSARY
- 4 PURLIN STRUCTURE ACCORDING TO CONSTRUCTION DRAWING
- 5 LOAD-BEARING STEEL FRAME ACCORDING TO CONSTRUCTION DRAWING

INSTRUCTIONS

Water insulation class in compliance with construction drawing
Counter inclinations $\geq 1:60$

APPLICATIONS

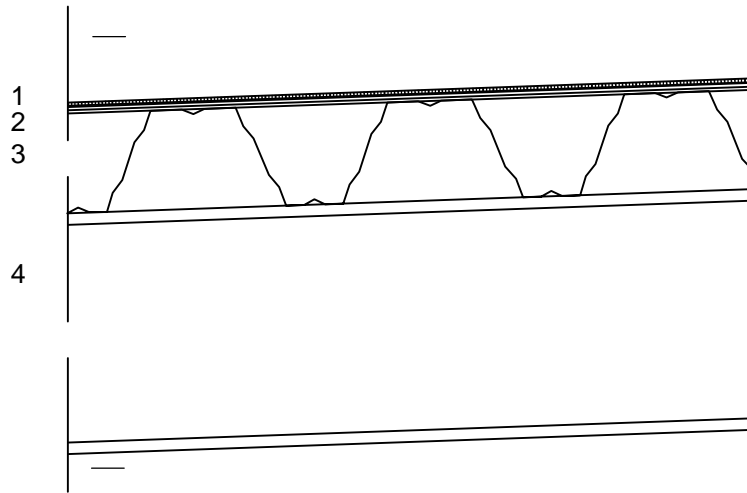
Warehouse roofs, inclinations $\geq 1:40$



Contents of drawing

Load-bearing sheet
Structural detail
Warehouse roofs - 2

Date 15.12.2000	Rev. date 21.7.2011	Work nr.	Draw. nr. IN 27	Rev. 01
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4027	



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 WEATHERING PLYWOOD
- 3 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING, ANTI-CONDENSATION COATING ON THE SHEET'S LOWER SURFACE, WHEN NECESSARY
- 4 LOAD-BEARING STEEL FRAME ACCORDING TO CONSTRUCTION DRAWING

INSTRUCTIONS

Water insulation class in compliance with construction drawing
Counter inclinations $\geq 1:60$

APPLICATIONS

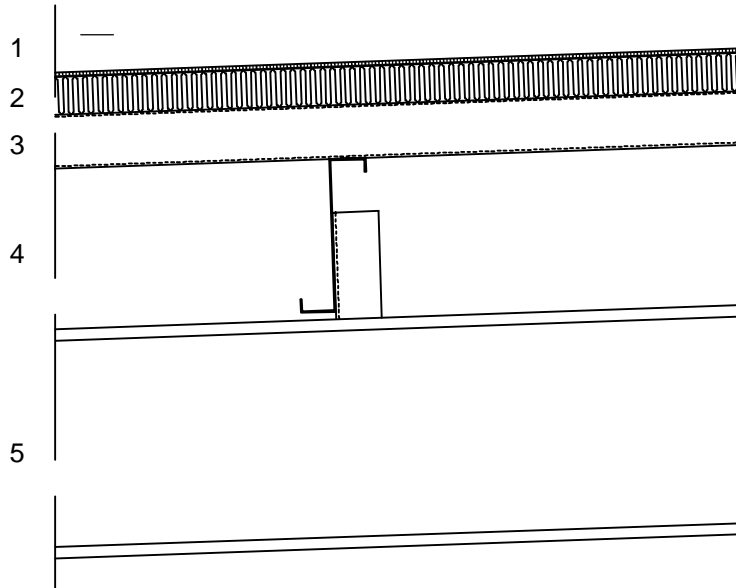
Warehouse roofs, inclinations $\geq 1:40$



Contents of drawing

Load-bearing sheet
Structural detail
Warehouse roofs - 3

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. In 28	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4028	



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 THERMAL INSULATION, SUITED FOR WATER INSULATION'S BASE
- 3 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING, ANTI-CONDENSATION COATING ON THE SHEET'S LOWER SURFACE, WHEN NECESSARY
- 4 PURLIN STRUCTURE ACCORDING TO CONSTRUCTION DRAWING
- 5 LOAD-BEARING STEEL STRUCTURE ACCORDING TO CONSTRUCTION DRAWING

INSTRUCTIONS

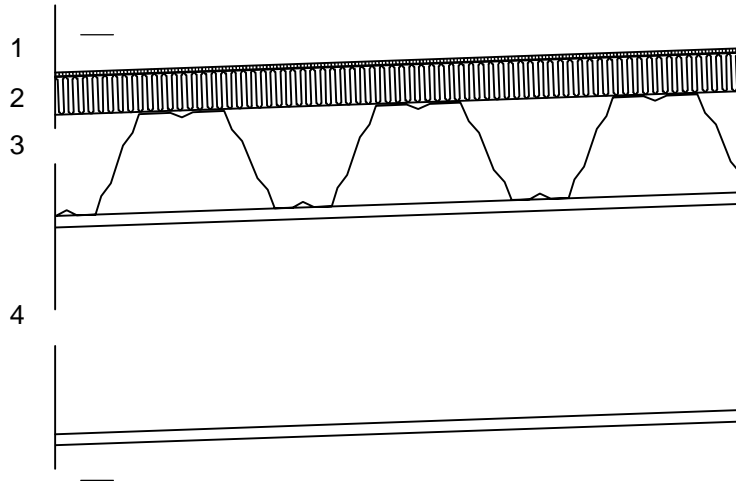
Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continuous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

APPLICATIONS

Warehouse roofs, inclinations $\geq 1:40$

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Drw. nr. IN 29	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4029	



STRUCTURAL LAYERS

- 1 WATER INSULATION
- 2 THERMAL INSULATION, SUITED FOR WATER INSULATION'S BASE
- 3 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING, ANTI-CONDENSATION COATING ON THE SHEET'S LOWER SURFACE, WHEN NECESSARY
- 4 LOAD-BEARING STEEL STRUCTURE ACCORDING TO CONSTRUCTION DRAWING

INSTRUCTIONS

Water insulation is fastened mechanically through thermal insulation to support structure. If the used water insulation requires ventilation ducts in the thermal insulation, it has to be made sure that they are continous. Replacement air is provided to the ventilation ducts at eaves and exhaust ventilation is arranged e.g. with inward relief valves according to construction drawing. Water insulation class in compliance with construction drawing. Counter inclinations $\geq 1:60$.

Thickness of the thermal insulation layer is determined by the used insulation material so that the structure conforms to required U-value.

APPLICATIONS

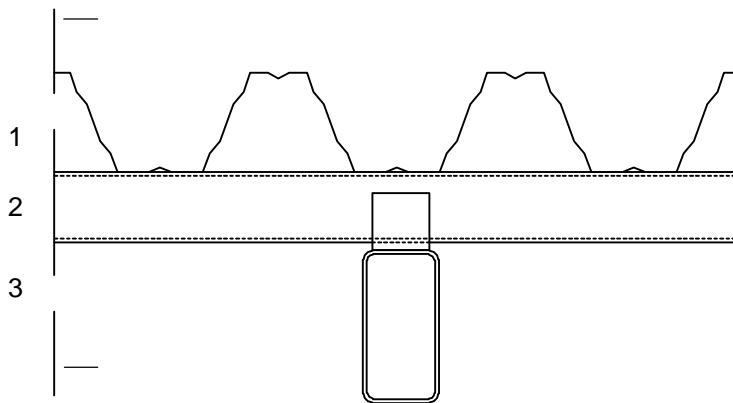
Warehouse roofs, inclinations $\geq 1:40$



Contents of drawing

Load-bearing sheet
Structural detail
Canopy and warehouse roofs

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN30	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4030	



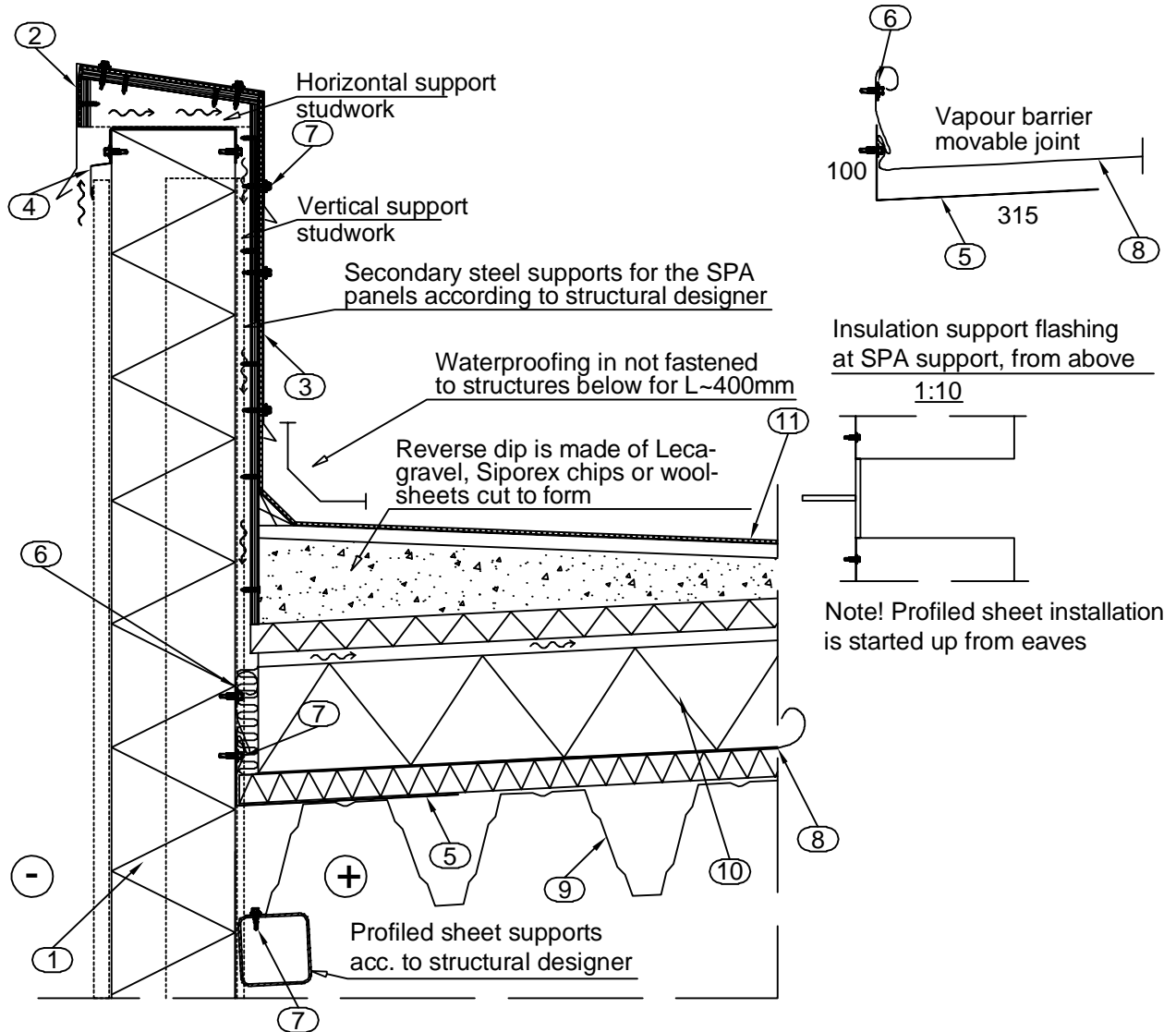
STRUCTURAL LAYERS

- 1 WATER INSULATION, LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING, ANTI-CONDENSATION COATING ON THE SHEET'S LOWER SURFACE, WHEN NECESSARY
- 2 PURLIN STRUCTURE ACCORDING TO CONSTRUCTION DRAWING
- 3 LOAD-BEARING STRUCTURE ACCORDING TO CONSTRUCTION DRAWING

APPLICATIONS

Canopy and warehouse roofs inclinations $\geq 1:10$

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 31	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4031	

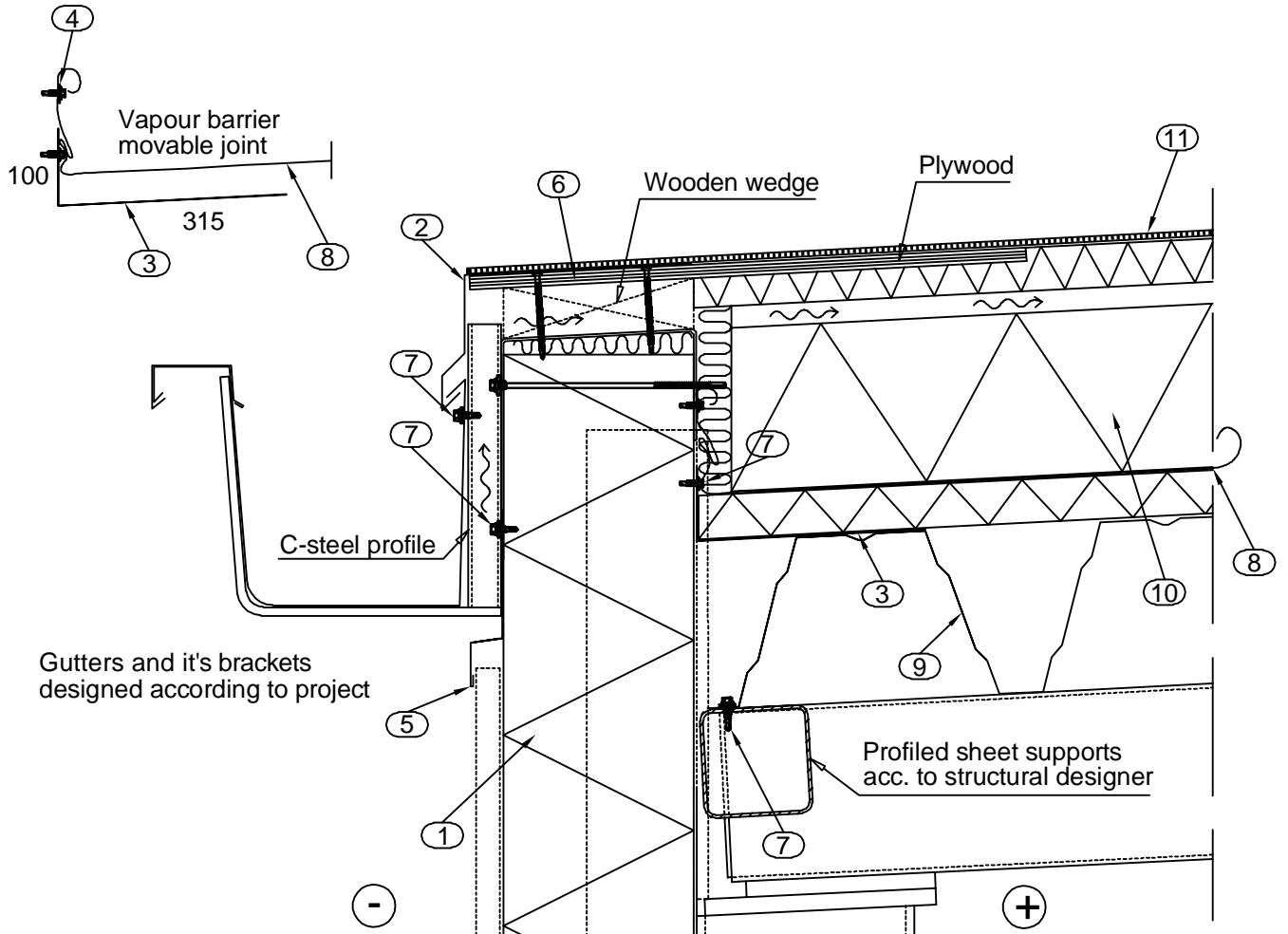


1. RUUKKI SANDWICH PANEL, HORIZONTAL MOUNTING
2. EAVE FLASHING
3. PROTECTIVE FLASHING
4. STORM FLASHING
5. INSULATION SUPPORT FLASHING, T=0.6MM
6. FLAT STEEL FOR VAPOUR BARRIER FIXING, T=0.6MM
7. FASTENER

8. VAPOUR BARRIER
9. LOAD-BEARING PROFILED SHEET
10. THERMAL INSULATION
11. WATER INSULATION

SEE ALSO SANDWICH PANEL SPA DETAIL: SPA06-1E-FI

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 32	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4032	

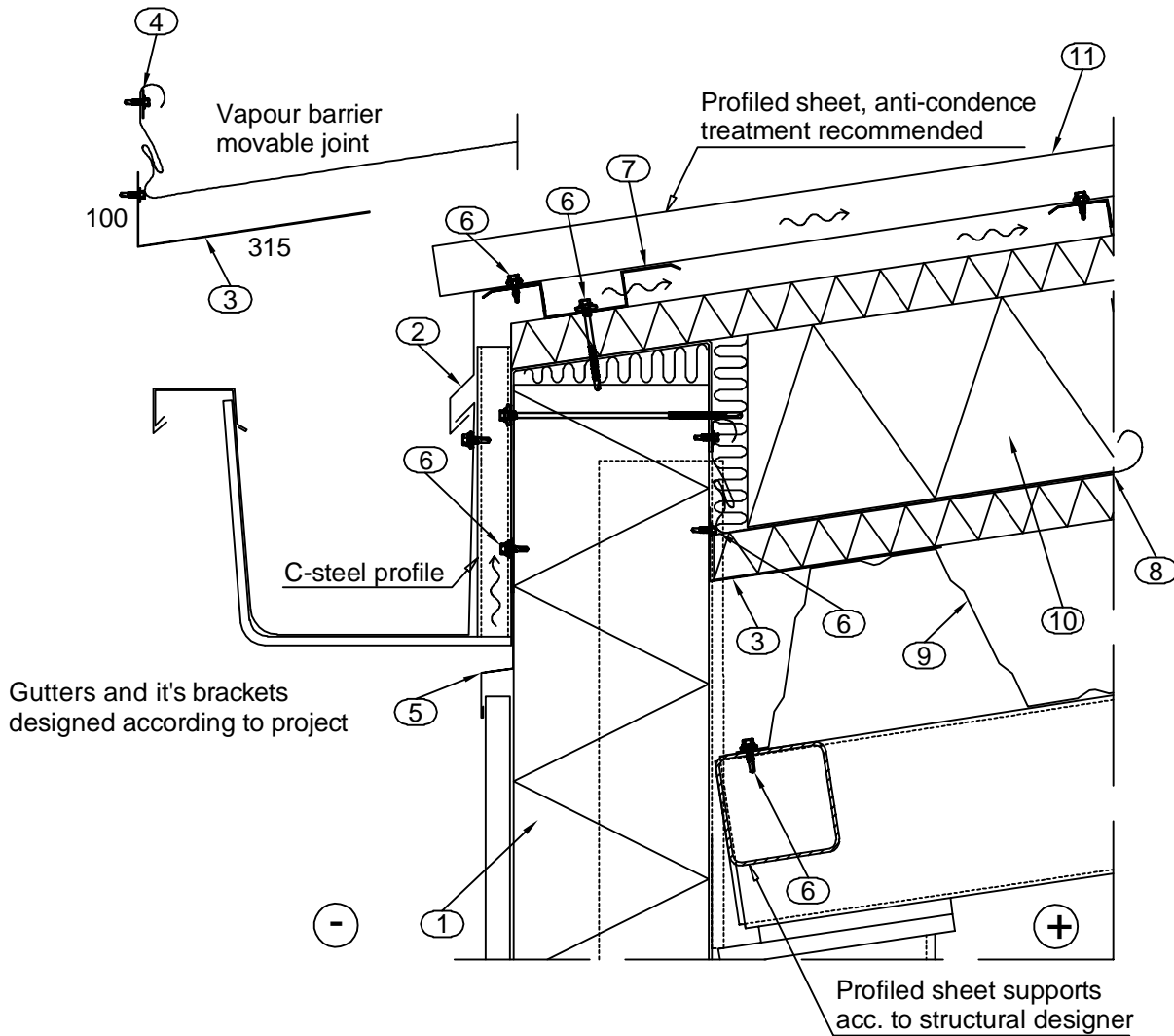


- 1. RUUKKI SANDWICH PANEL, HORIZONTAL MOUNTING
- 2. EAVE FLASHING
- 3. INSULATION SUPPORT FLASHING, T=0.6MM
- 4. FLAT STEEL FOR VAPOUR BARRIER FIXING, T=0.6MM
- 5. STORM FLASHING
- 6. WOOD
- 7. FASTENER

- 8. VAPOUR BARRIER
- 9. LOAD-BEARING PROFILED SHEET
- 10. THERMAL INSULATION
- 11. WATER INSULATION

SEE ALSO SANDWICH PANEL SPA DETAIL: SPA06-11E-FI

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 33	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. IN00A4033	

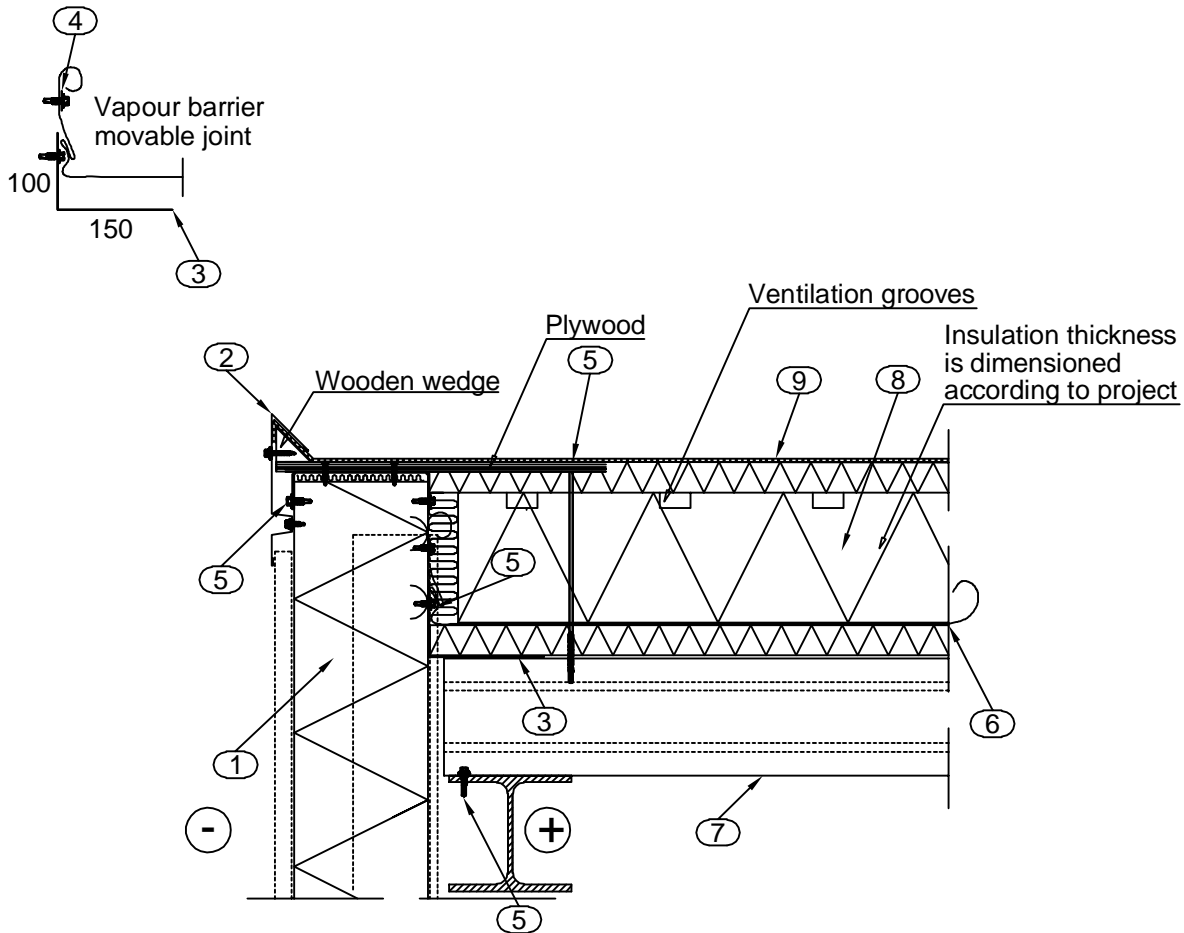


1. RUUKKI SANDWICH PANEL, HORIZONTAL MOUNTING
2. EAVE FLASHING
3. INSULATION SUPPORT FLASHING, T=0.6MM
4. FLAT STEEL FOR VAPOUR BARRIER FIXING, T=0.6MM
5. STORM FLASHING
6. FASTENER
7. VENTILATING STEEL BATTEN

8. VAPOUR BARRIER
9. LOAD-BEARING PROFILED SHEET
10. THERMAL INSULATION
11. WATER INSULATION, PROFILED SHEET

SEE ALSO SANDWICH PANEL SPA DETAIL: SPA06-9E-FI

Date 15.12.2000	Rev. date 04.08.2021	Work nr.	Draw. nr. IN 35	Rev. 02
Drawn by Ruukki	Rev. ..	.		
Scale :	Building		File nr. rIN00A4035	



1. RUUKKI SANDWICH PANEL, HORIZONTAL MOUNTING
2. EAVE FLASHING
3. INSULATION SUPPORT FLASHING, T=0.6MM
4. FLAT STEEL FOR VAPOUR BARRIER FIXING, T=0.6MM
5. FASTENER
6. VAPOUR BARRIER
7. LOAD-BEARING PROFILED SHEET

8. THERMAL INSULATION
9. WATER INSULATION, PROFILED SHEET

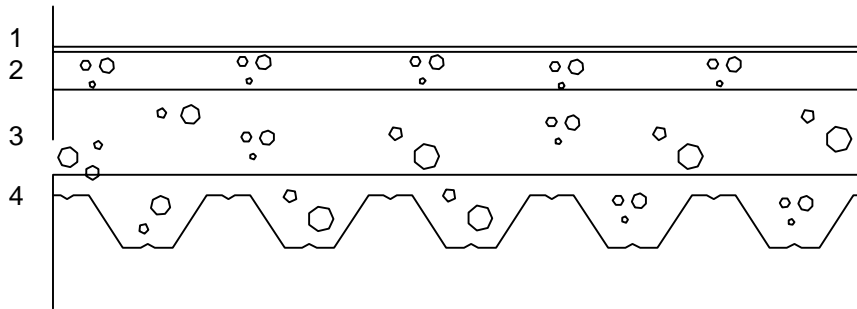
SEE ALSO SANDWICH PANEL SPA DETAIL: SPA06-12E-FI



Contents of drawing

Load-bearing sheet
Structural detail
Intermediate floor

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 36	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4036	



STRUCTURAL LAYERS

- 1 SURFACE MATERIAL ACCORDING TO DESIGNER SPECIFICATION
- 2 TOPPING
- 3 REINFORCED CONCRETE SLAB
ACCORDING TO CONSTRUCTION DRAWING
- 4 LOAD-BEARING PROFILED SHEET MOULD
ACCORDING TO CONSTRUCTION DRAWING
REINFORCEMENTS ACCORDING TO CONSTRUCTION DRAWING

APPLICATIONS

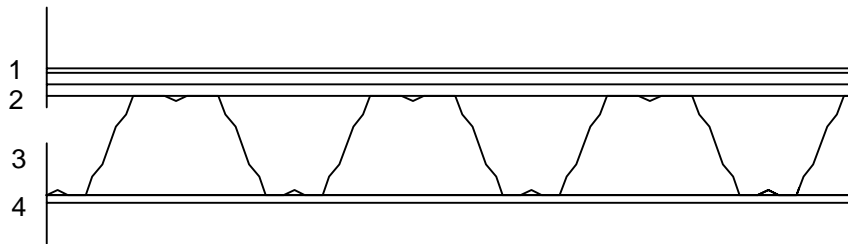
Concrete floors



Contents of drawing

Load-bearing sheet
Structural detail
Light-weight intermediate floor

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 37	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4037	



STRUCTURAL LAYERS

- 1 SURFACE MATERIAL ACCORDING TO DESIGNER SPECIFICATION
- 2 BUILDING BOARD(S), FASTENING ACCORDING TO CONSTRUCTION DRAWING
- 3 LOAD-BEARING PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING
- 4 FIRE PROTECTION, WHEN NECESSARY
CLADDING ACCORDING TO DESIGN

APPLICATIONS

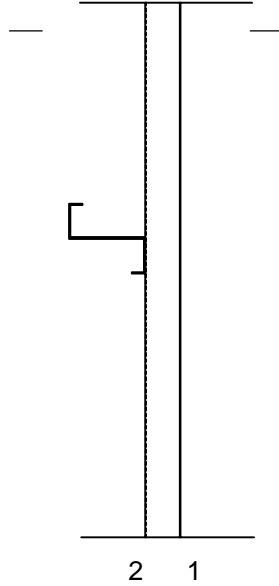
Lightly stressed intermediate floors



Contents of drawing

Load-bearing sheet
Structural detail
Uninsulated walls - 1

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 38	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4038	



STRUCTURAL LAYERS

- 1 PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING
- 2 PURLIN STRUCTURE ACCORDING TO CONSTRUCTION DRAWING

APPLICATIONS

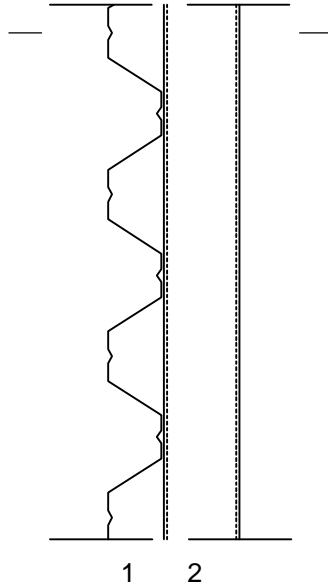
Uninsulated walls



Contents of drawing

Load-bearing sheet
Structural detail
Uninsulated walls - 2

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 39	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4039	



STRUCTURAL LAYERS

- 1 PROFILED SHEET ACCORDING TO CONSTRUCTION DRAWING
- 2 STEEL STRUCTURE ACCORDING TO CONSTRUCTION DRAWING

APPLICATIONS

Uninsulated walls

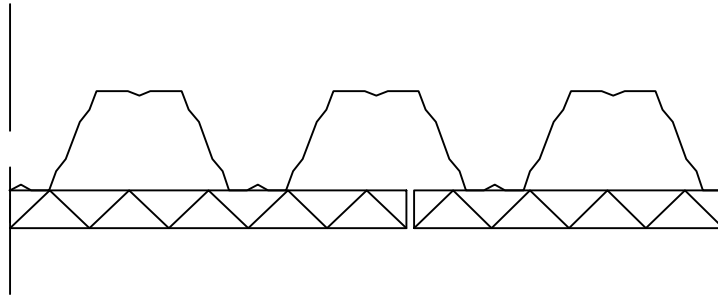


Contents of drawing

Load-bearing sheet
Structural detail
Fastening of acoustic insulation wool - 1

Date 15.12.2000	Rev. date 04.08.2021	Work nr. .	Draw. nr. IN 40	Rev. 02
Drawn by Ruukki	Rev. ..		File nr. IN00A4040	
Scale :	Building			

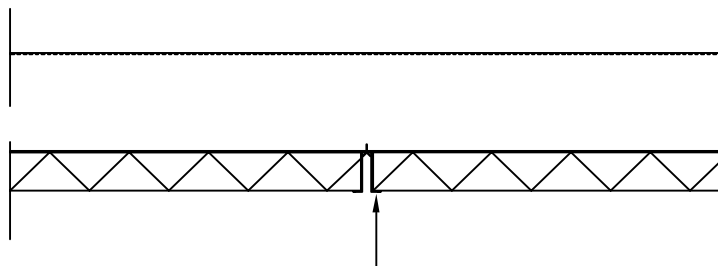
FASTENING OF ACOUSTIC INSULATION WOOL ADHESIVE INSTALLATION



ACOUSTIC INSULATION WOOL IS GLUED TO PROFILED SHEET E.G. WITH ACOUSTIC GLUE.

IN OPEN JOINT INSTALLATION APPROX. 10 mm GAP IS LEFT BETWEEN SHEETS.

FASTENING OF ACOUSTIC INSULATION WOOL BARREL RIDGE INSTALLATION



FASTENING OF BARREL RIDGE TO PROFILED SHEET
E.G. WITH HIDDEN RIVETS

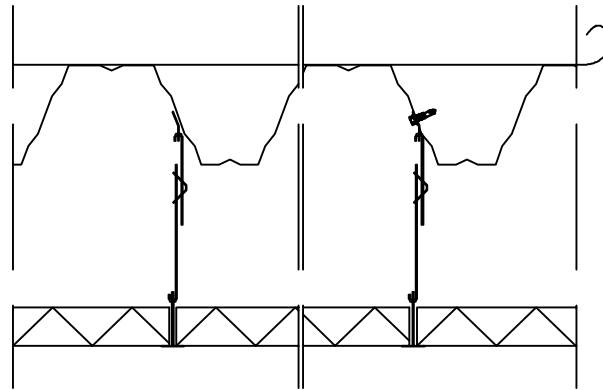


Contents of drawing

Load-bearing sheet
Structural detail
Fastening of acoustic insulation wool - 2

Date 15.12.2000	Rev. date 04.08.2021	Work nr. .	Draw. nr. IN 41	Rev. 02
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4041	

FASTENING OF ACOUSTIC INSULATION WOOL T-FLASNING / SUSPENDED CEILING



BRACKETS ARE FASTENED FROM FLANGES' BOTTOM OR SIDE.

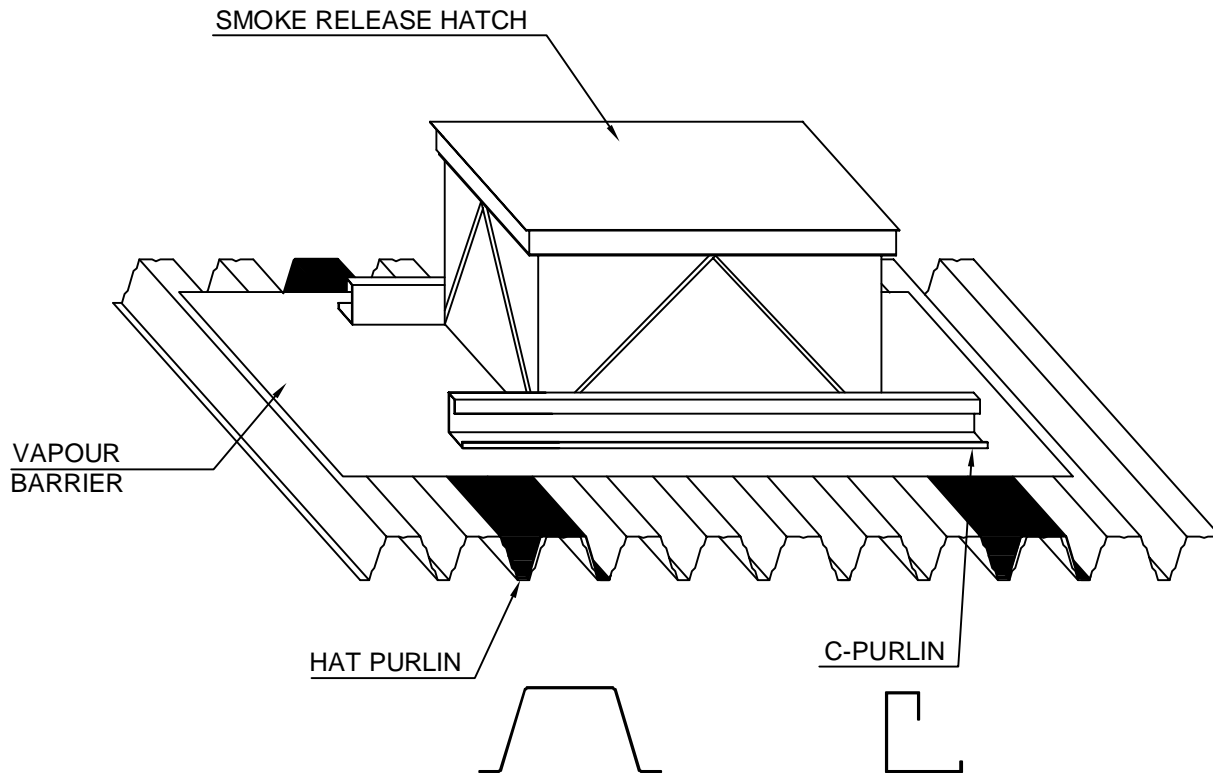
IF VAPOUR BARRIER IS USED DIRECTLY ON TOP OF PROFILED SHEET,
BRACKET SHALL NOT BE FASTENED TO FLANGE'S CROWN.



Contents of drawing

Load-bearing sheet
Structural detail
Opening

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Drw. nr. IN 42	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4042	



A FRAME AROUND THE OPENING IS MADE OF C- AND HAT PURLINS WHICH SUPPORTS HOLE'S EDGES.

STEEL SUPPORTS AND FASTENING SCREWS ACCORDING TO CONSTRUCTION DESIGNER SPECIFICATION.

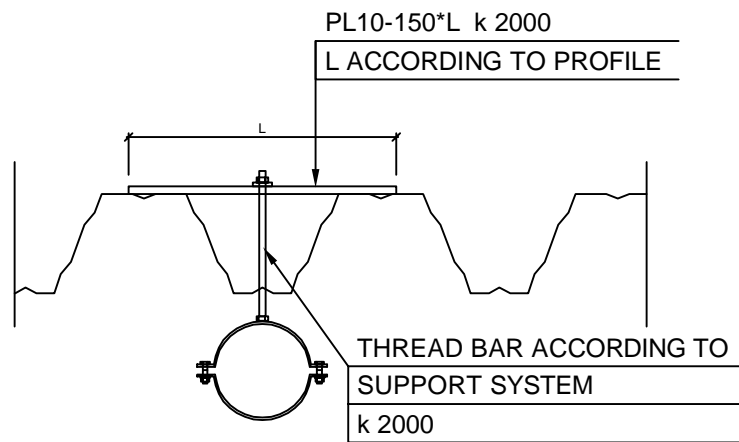


Contents of drawing

Load-bearing sheet
Structural detail
Supporting - 1

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 43	Rev. 01
Drawn by Ruukki	Rev. ..			
Scale :	Building		File nr. IN00A4043	

SUPPORTING FROM ABOVE



DISTANCE BETWEEN SUPPORTS HAS TO BE CHECKED ACCORDING TO
LOAD-BEARING SHEET AND STRUCTURE TO BE SUPPORTED.

SUPPORTS ARE TO BE INSTALLED BEFORE INSULATION AND VAPOUR BARRIER.

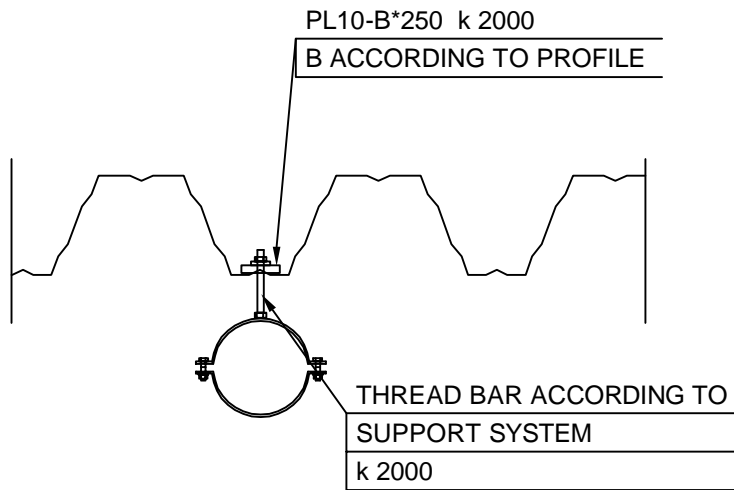


Contents of drawing

Load-bearing sheet
Structural detail
Supporting - 2

Date 15.12.2000	Rev. date 21.7.2011	Work nr. .	Draw. nr. IN 44	Rev. 01
Drawn by Ruukki	Rev. ..		File nr. IN00A4044	
Scale :	Building			

SUPPORTING FROM FLANGE



DISTANCE BETWEEN SUPPORTS HAS TO BE CHECKED ACCORDING TO
LOAD-BEARING SHEET AND STRUCTURE TO BE SUPPORTED.
SUPPORTS ARE TO BE INSTALLED BEFORE INSULATION AND VAPOUR BARRIER.