

Drawing nr.	Contents of drawing
SPA01-ENERGY-1E-EN	Plinth, horizontal installation
SPA01-ENERGY-2E-EN	Plinth, horizontal installation
SPA01-ENERGY-3E-EN	Plinth, horizontal installation
SPA01-ENERGY-4E-EN	Plinth, horizontal installation
SPA01-ENERGY-5E-EN	Plinth, horizontal installation
SPA01-ENERGY-6E-EN	Plinth, vertical- and diagonal installation
SPA01-ENERGY-7E-EN	Plinth, detail
SPA01-ENERGY-8E-EN	Plinth, detail
SPA01-ENERGY-9E-EN	Plinth, detail
SPA01-ENERGY-10E-EN	Plinth, detail
SPA01-ENERGY-11E-EN	Plinth, detail
SPA01-ENERGY-12E-EN	Plinth, detail
SPA01-ENERGY-30E-EN	Plinth, horizontal installation, invisible flashing
SPA02-ENERGY-1E-EN	Joint between panels, horizontal installation
SPA02-ENERGY-2E-EN	Joint between panels, vertical- and diagonal installation
SPA02-ENERGY-3E-EN	Joint between panels, horizontal, vertical- and diagonal inst.
SPA02-ENERGY-4E-EN	Joint between panels, horizontal, vertical- and diagonal inst.
SPA03-ENERGY-1E-EN	Vertical joint, horizontal inst., rectangle steel column
SPA03-ENERGY-3E-EN	Vertical joint, horizontal inst., rectangle steel column
SPA03-ENERGY-4E-EN	Vertical joint, horizontal installation, concrete column
SPA03-ENERGY-6E-EN	Vertical joint, horizontal installation, vemo-fastening
SPA03-ENERGY-7E-EN	Vertical joint, horizontal installation, T-steel, parapet
SPA03-ENERGY-8E-EN	Vertical joint, horizontal inst., rectangle steel column
SPA03-ENERGY-30E-EN	Vertical joint, horizontal installation,, invisible flashing
SPA04-ENERGY-1E-EN	External corner, horizontal inst., rectangle steel column
SPA04-ENERGY-2E-EN	External corner, horizontal installation, I-steel column
SPA04-ENERGY-3E-EN	External corner, horizontal installation, concrete column
SPA04-ENERGY-4E-EN	External corner, horizontal inst., rectangle steel column
SPA04-ENERGY-5E-EN	External corner, horizontal inst., laminated timber column
SPA04-ENERGY-6E-EN	External corner, horizontal installation, concrete filled column
SPA04-ENERGY-8E-EN	External corner, horizontal installation, SPA corner panel
SPA04-ENERGY-9E-EN	External corner, horizontal installation, L-steel, parapet
SPA04-ENERGY-30E-EN	External corner, horizontal installation,invisible flashing
SPA04-ENERGY-31E-EN	External corner, horizontal installation,invisible flashing
SPA04-ENERGY-33E-EN	External corner, horizontal installation,invisible flashing
SPA05-ENERGY-1E-EN	Internal corner, horizontal inst., rectangle steel column
SPA05-ENERGY-2E-EN	Internal corner, horizontal inst., rectangle steel column
SPA05-ENERGY-3E-EN	Internal corner, horizontal installation, L-steel, parapet
SPA05-ENERGY-30E-EN	Internal corner, horizontal installation,invisible flashing

City sector	Block	Site/Reg. nr.	File nr.		
Building type	Drawing type			Nr.	
Building, Name and address	Contents of drawing			Scale	
	Sandwich panel SPA ENERGY PRINCIPLE DETAIL DRAWINGS External walls				
RUUKKI Ruukki Construction Oy Panuntie 11 00620 HELSINKI FINLAND	Designer	Work nr.	Work nr.	Drw. nr.	Rev.
Date 01.10.2025					
Drawn by Ruukki	Checked				

Drawing nr.	Contents of drawing				
SPA06-ENERGY-1E-EN	Parapet, horizontal installation, side eaves				
SPA06-ENERGY-2E-EN	Parapet, horizontal installation, end eaves				
SPA06-ENERGY-3E-EN	Parapet, vertical- and diagonal installation, side eaves				
SPA06-ENERGY-4E-EN	Parapet, vertical- and diagonal installation, end eaves				
SPA06-ENERGY-5E-EN	Cantilever eaves, horizontal inst., side eaves, prof. sheet				
SPA06-ENERGY-6E-EN	Cantilever eaves, horizontal inst., end eaves, prof. sheet				
SPA06-ENERGY-7E-EN	Cantilever eaves, horizontal inst., side eaves, bitumen roof				
SPA06-ENERGY-8E-EN	Cantilever eaves, horizontal inst., end eaves, bitumen roof				
SPA06-ENERGY-9E-EN	Eaves, horizontal installation, side eaves, profiled sheet				
SPA06-ENERGY-10E-EN	Eaves, horizontal installation, end eaves, profiled sheet				
SPA06-ENERGY-11E-EN	Eaves, horizontal installation, side eaves, bitumen roof				
SPA06-ENERGY-12E-EN	Eaves, horizontal installation, end eaves, bitumen roof				
SPA06-ENERGY-13E-EN	Vapour barrier and insulation supp. flashing fastening				
SPA06-ENERGY-14E-EN	Cantilever eaves / Vapor barrier, plastic membrane / Load-bearing sheet				
SPA06-ENERGY-15E-EN	Cantilever eaves / Vapor barrier, plastic membrane / Hollow core slab				
SPA06-ENERGY-16E-EN	Cantilever eaves / Vapor barrier, plastic membrane / Wood element				
SPA06-ENERGY-17E-EN	Cantilever eaves / Vapor barrier, bitumen membrane / Load-bearing sheet				
SPA06-ENERGY-18E-EN	Cantilever eaves / Vapor barrier, bitumen membrane / Hollow core slab				
SPA06-ENERGY-19E-EN	Round pass-through / Vapor barrier, plastic membrane / Load-bearing sheet				
SPA06-ENERGY-20E-EN	Round pass-through / Vapor barrier, plastic membrane / Hollow core slab				
SPA06-ENERGY-21E-EN	Round pass-through / Vapor barrier, bitumen membrane / Load-bearing sheet				
SPA06-ENERGY-22E-EN	Round pass-through / Vapor barrier, bitumen membrane / Hollow core slab				
SPA06-ENERGY-23E-EN	Smoke hatch / Vapor barrier, plastic membrane / Load-bearing sheet				
SPA06-ENERGY-24E-EN	Smoke hatch / Vapor barrier, plastic membrane / Hollow core slab				
SPA06-ENERGY-25E-EN	Smoke hatch / Vapor barrier, bitumen membrane / Load-bearing sheet				
SPA06-ENERGY-26E-EN	Smoke hatch / Vapor barrier, bitumen membrane / Hollow core slab				
SPA06-ENERGY-30E-EN	Parapet, horizontal installation,invisible flashing				
SPA06-ENERGY-31E-EN	Eaves, horizontal installation,invisible flashing				
SPA06-ENERGY-32E-EN	Eaves, horizontal installation,invisible flashing				
SPA07-ENERGY-1E-EN	Uplifted roofing, horizontal installation				
SPA08-ENERGY-1E-EN	Ruukki energy window, horizontal installation, small window				
SPA08-ENERGY-2E-EN	Ruukki energy window, horizontal installation, small window				
SPA08-ENERGY-3E-EN	Ruukki energywindow, horizontal installation, large window				
SPA08-ENERGY-4E-EN	Ruukki energywindow, horizontal installation, large window				
SPA08-ENERGY-5E-EN	Window, horizontal installation				
SPA08-ENERGY-6E-EN	Window, horizontal installation				
SPA08-ENERGY-30E-EN	Window, horizontal installation,invisible flashing				
SPA08-ENERGY-31E-EN	Window, horizontal installation,invisible flashing				
SPA08-ENERGY-32E-EN	Window,invisible flashing				
City sector	Block	Site/Reg. nr.	File nr.		
Building type		Drawing type	Nr.		
Building, Name and address		Contents of drawing	Scale		
 Ruukki Construction Oy Panuntie 11 00620 HELSINKI FINLAND		Sandwich panel SPA ENERGY PRINCIPLE DETAIL DRAWINGS External walls			
Date 01.10.2025	Designer	Work nr.	Work nr.	Drw. nr.	Rev.
Drawn by Ruukki	Checked				

Drawing nr.	Contents of drawing
SPA09-ENERGY-1E-EN	Ruukki energydoor, horizontal installation, single door
SPA09-ENERGY-2E-EN	Ruukki energydoor, horizontal installation, single door
SPA09-ENERGY-3E-EN	Ruukki energydoor, horizontal installation, double door
SPA09-ENERGY-4E-EN	Ruukki energydoor, horizontal installation, double door
SPA09-ENERGY-5E-EN	Door, horizontal installation
SPA09-ENERGY-6E-EN	Door, horizontal installation
SPA09-ENERGY-7E-EN	Overhead door, horizontal installation
SPA09-ENERGY-8E-EN	Overhead door, horizontal installation
SPA09-ENERGY-30E-EN	Door, horizontal installation,invisible flashing
SPA09-ENERGY-31E-EN	Door, horizontal installation,invisible flashing
SPA09-ENERGY-32E-EN	Door,invisible flashing
SPA10-ENERGY-1E-EN	Sandwich panel SPA150 ENERGY
SPA10-ENERGY-2E-EN	Sandwich panel SPA200 ENERGY
SPA10-ENERGY-3E-EN	Sandwich panel SPA230 ENERGY
SPA10-ENERGY-4E-EN	Sandwich panel SPA200+ ENERGY
SPA10-ENERGY-5E-EN	Sandwich panel SPA300 ENERGY
SPA11-ENERGY-1E-EN	Rib R150 surface profiling
SPA11-ENERGY-2E-EN	Rib R200 surface profiling
SPA11-ENERGY-3E-EN	Rib R600 surface profiling
SPA11-ENERGY-4E-EN	Smooth F surface (no profiling)
SPA11-ENERGY-5E-EN	M15 (Micro) surface profiling
SPA11-ENERGY-6E-EN	L50 (Linear) surface profiling

City sector	Block	Site/Reg. nr.	File nr.		
Building type	Drawing type			Nr.	
Building, Name and address	Contents of drawing			Scale	
Ruukki Ruukki Construction Oy Panuntie 11 00620 HELSINKI FINLAND					
Date 01.10.2025	Designer	Work nr.	Work nr.	Drw. nr.	Rev.
Drawn by Ruukki	Checked				



Contents of drawing

Sandwich panel SPA ENERGY

Accessory numbers in details

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA00-ENERGY-0E-EN
Drawn by Ruukki	Rev.		
Scale	Building	File nr.	

SANDWICH PANELS

- 001. Sandwich panel SPA ENERGY 150-230
- 002. Sandwich panel SPA ENERGY corner panel

FLASHINGS

- 100. Standard purlins
- 101-109. Purlins and other fastening flashings
- 111-119. Plinth flashings
- 121-124. Fastening plates (for vemo-fastenings)
- 125-129. Purlins
- 131-159. Vertical seam-, external- and internal corner flashings
- 161-179. Eave flashings
- 181-194. Window- and door flashings
- 195-199. Flashings used in uplifted roofs

FASTENERS

- 201. Self-drilling element screw, washer with sealing
- 202. Self-drilling element screw, without washer
- 205. Self-drilling element screw / fastener screw for roof
- 206. Self-drilling element screw / fastener screw for roof
- 211. Self-threading element screw, washer with sealing
- 212. Self-threading element screw, without washer
- 215. Countersink washer
- 221. Internal thread socket and hex bolt (for vemo fastenings)
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 233. Flashing fastener, washer with sealing
- 234. Flat headed flashing fastener
- 235. Joint panel fastener, stainless steel, washer with sealing
- 241. Fastener screw, washer with sealing
- 242. Fastener screw, without washer
- 251. Spike element fastener, washer with sealing
- 255. Spike fastener, without washer

- 261. Self-drilling element screw to wood, washer with sealing
- 262. Self-drilling element screw to wood, without washer

- 265. Fastener screw to wood, washer with sealing

- 271. Rivet

SEALANTS AND INSULATIONS

- 300. Expandable sealing band
- 301. Plinth sealing expanding
- 302. Sealing strip for flashings
- 303. Sealing strip for frame
- 305. - 309. Ruukki Wind Joint Tape
- 310. Mineral- / stonewool
- 311. Mineral wool
- 312. Mineral wool
- 313. Mineral wool
- 321. Ruukki sealant mastic
- 323. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation
- 327. Elastic polyurethane, eg. Illbruck FM330 tai FM637
- 328. Ruukki sealant mastic

- 330. PU insulation
- 331. EPDM sealing
- 332. PU foam

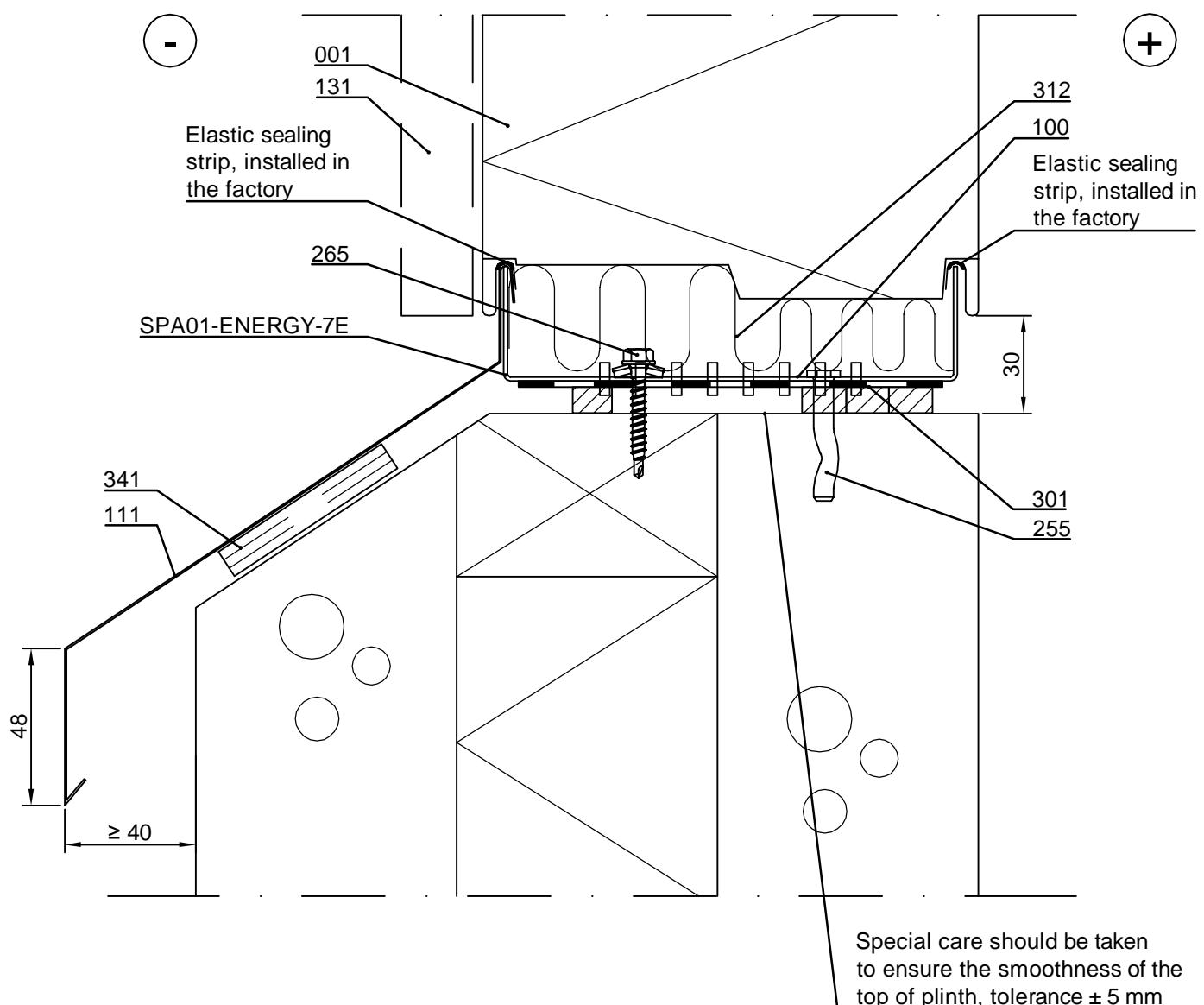
- 341. Plywood
- 342. L-profile

RUUKKI

Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
Plinth, vertical section
Option 1

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

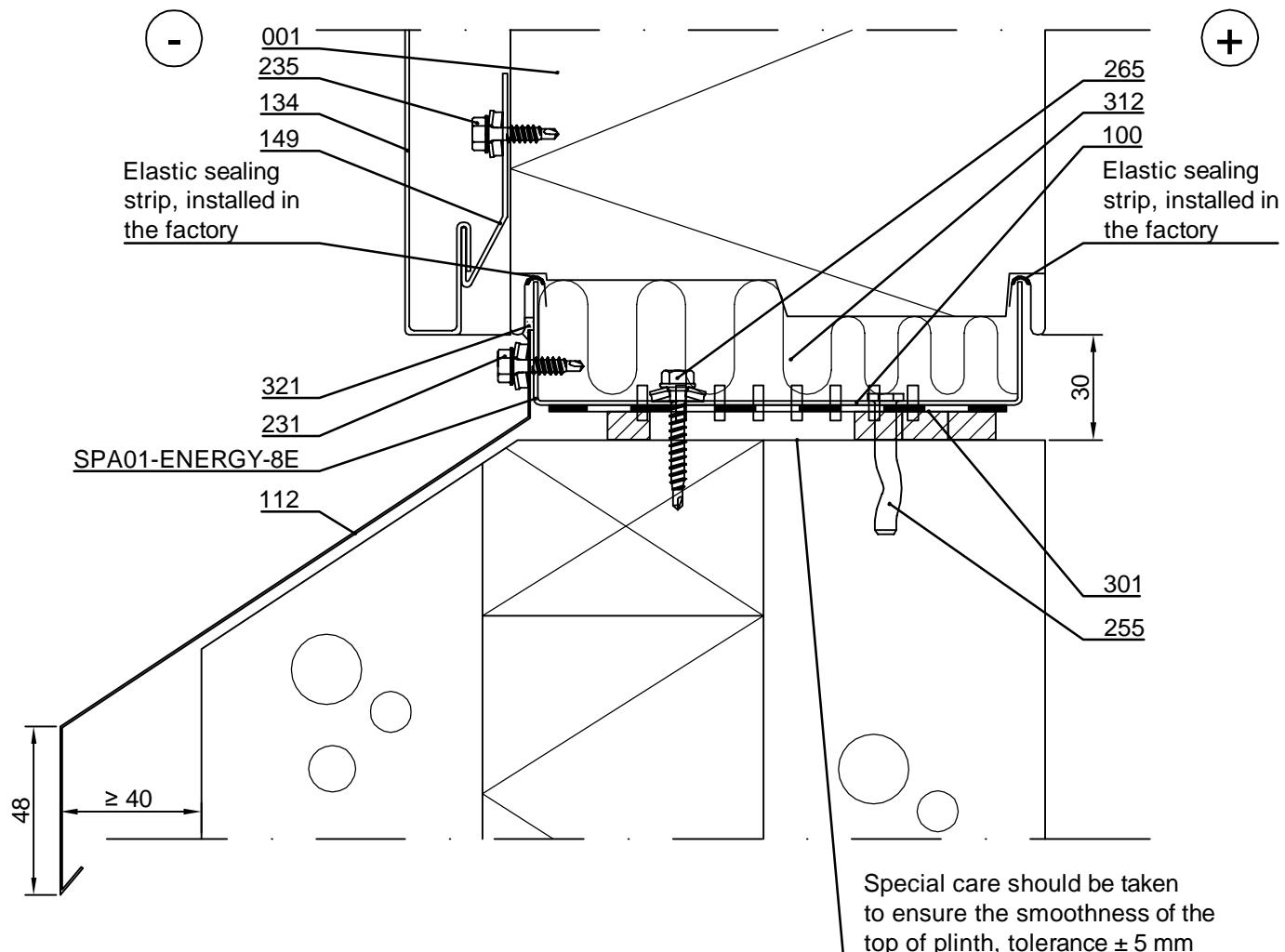


- 001. Sandwich panel SPA ENERGY
- 100. /EA1U__/ U-Plinth purlin
- 111. /EA1P3-__/ Plinth flashing (installed simultaneously with panels)
- 131. /EA1JV1/ Vertical joint flashing
- 255. /S5R48038/ Spike-fastener, concrete c/c600 || or
- 265. /S3H55042WA4B/ Fastener, wood c/c600
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 312. /EAWS__/ Mineral wool
- 341. Plywood, if necessary

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Plinth, vertical section
Option 2

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

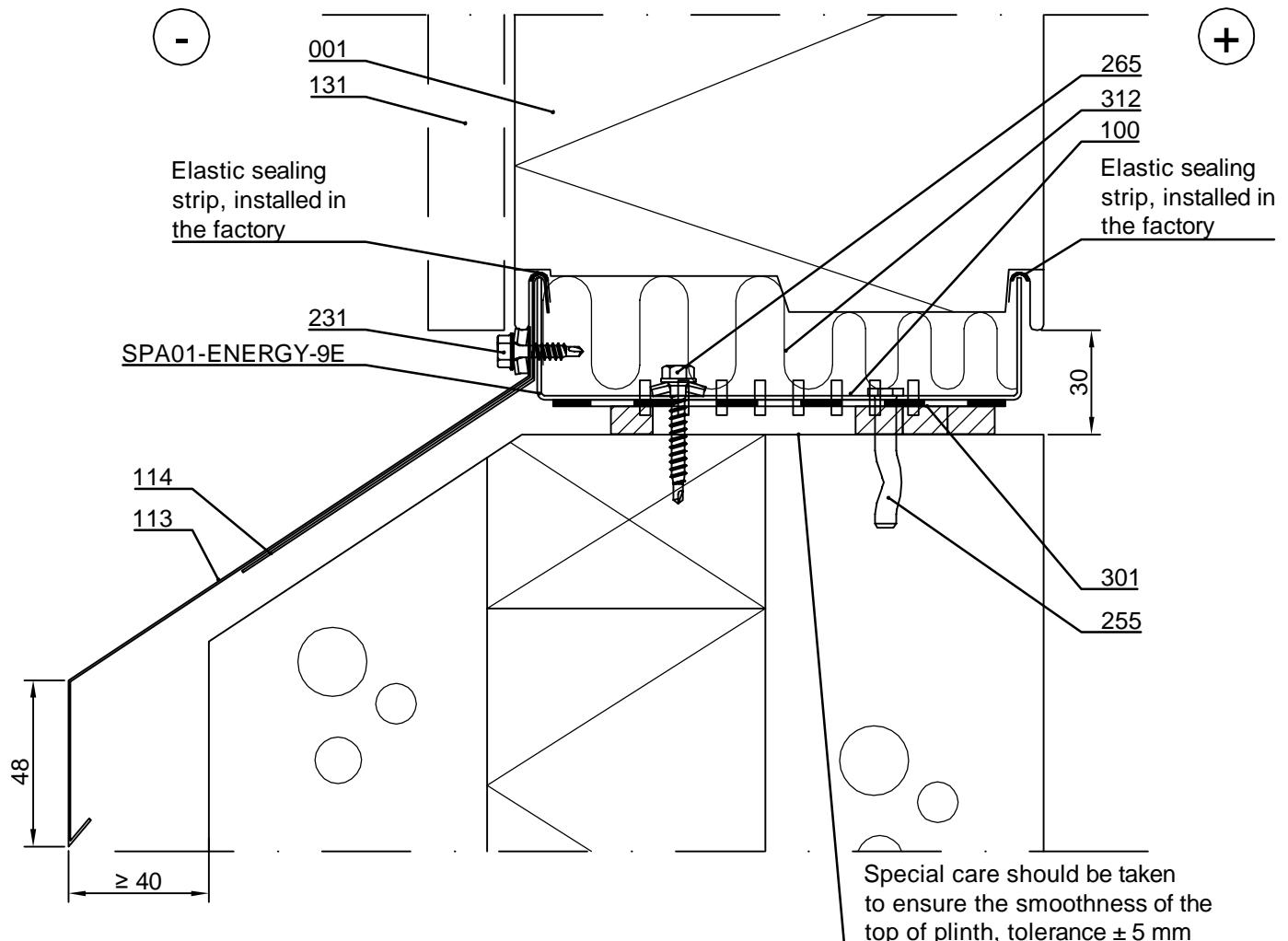


- 001. Sandwich panel SPA ENERGY
- 100. /EA1U____/ U-Plinth purlin
- 112. /EA1P1-____/ Plinth flashing (can be installed after panel installation)
- 134. /EA1JV10-11/ Vertical joint panel
- 149. /EA1SF1/ Joint panel starting fillet
- 231. Flashing fastener, washer with sealing
- 235. Joint panel fastener, stainless steel, washer with sealing
- 255. /S5R48038/ Spike-fastener, concrete c/c600 || or
- 265. /S3H55042WA4B/ Fastener, wood c/c600 || or
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Plinth, vertical section
Option 3

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

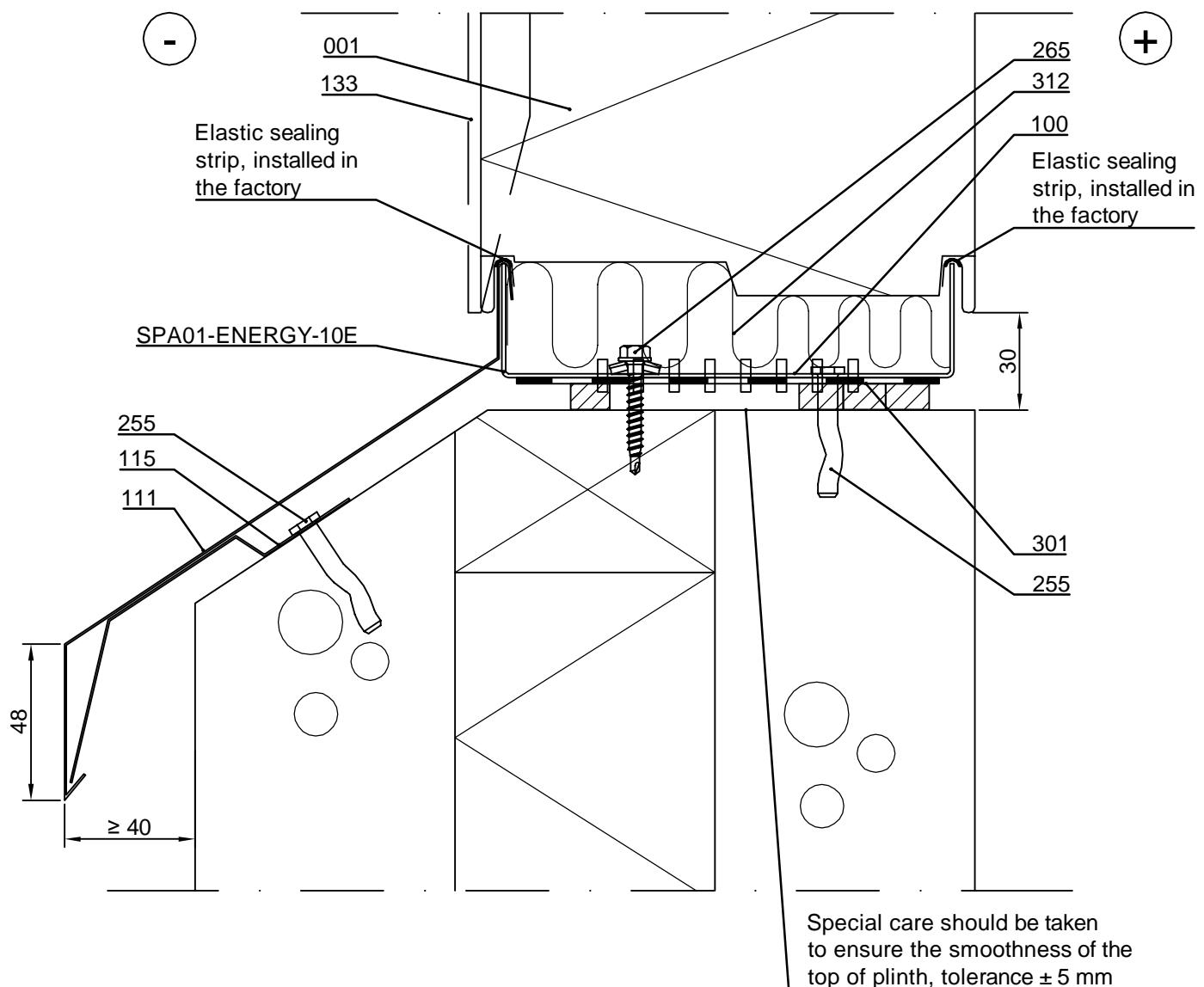


- 001. Sandwich panel SPA ENERGY
- 100. /EA1U___/ U-Plinth purlin
- 113. /EA1P4-___/ Plinth flashing (can be installed after panel installation)
- 114. /EA1PS1-___/ Support flashing (installed simultaneously with panels)
- 131. /EA1JV1/ Vertical joint flashing
- 231. Flashing fastener, washer with sealing
- 255. /S5R48038/ Spike-fastener, concrete c/c600 || or
- 265. /S3H55042WA4B/ Fastener, wood c/c600
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 312. /EAWS___/ Mineral wool

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Plinth, vertical section
Option 4

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

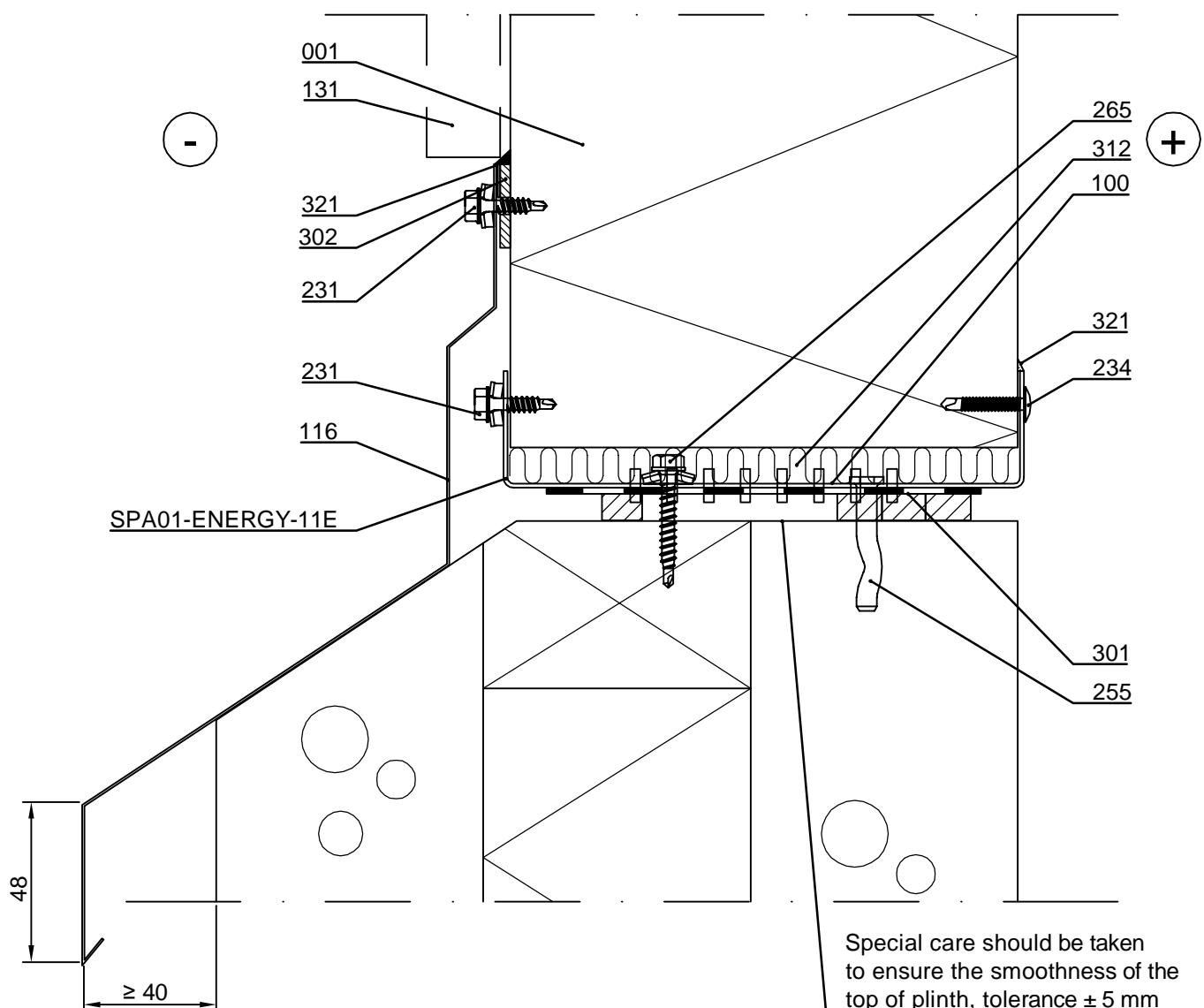


- 001. Sandwich panel SPA ENERGY
- 100. /EA1U__/ U-Plinth purlin
- 111. /EA1P3-__/ Plinth flashing (installed simultaneously with panel)
- 115. Support flashing, L200 k1000, according to project (installed simultaneously with panels)
- 133. /EA1JV9/ Vertical joint flashing
- 255. /S5R48038/ Spike-fastener, concrete c/c600 || or
- 265. /S3H55042WA4B/ Fastener, wood c/c600
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 312. /EAWS__/ Mineral wool

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Plinth, vertical section
Starting with cut panel

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



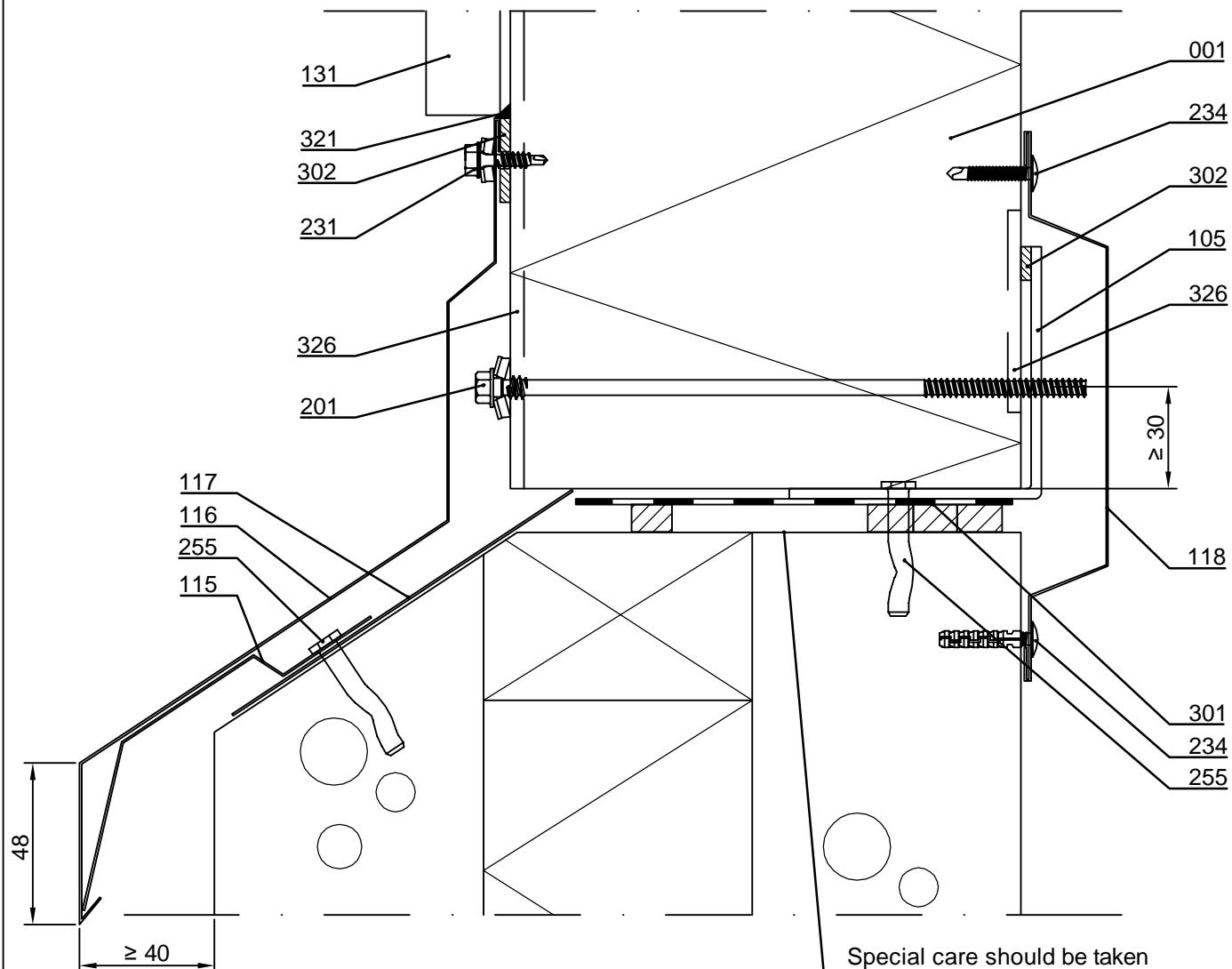
- 001. Sandwich panel SPA ENERGY
- 100. /EA1W____/ Purlin
- 116. /EA1P5-____/Plinth flashing (can be installed after panel installation)
- 131. /EA1JV1/ Vertical joint flashing
- 231. Flashing fastener, washer with sealing
- 234. Flat head flashing fastener

Ruukki's delivery

- 255. /S5R48038/ Spike-fastener, concrete c/c600 || or
- 265. /S3H55042WA4B/ Fastener, wood c/c600
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 302. /EA3SS410/ Sealing strip
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic

Sandwich panel SPA ENERGY, vertical- and diagonal installation
Plinth, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 105. /EA1L7530ZN/ Support L-purlin, (t=3mm)
- 115. Support flashing, L200 k1000, according to project (installed simultaneously with panels)
- 116. /EA1P5-__/Plinth flashing (can be installed after panel installation)
- 117. Cover flashing, according to project (installed simultaneously with panels)
- 118. Cover flashing, according to project
- 131. /EA1JV1/ Vertical joint flashing
- 201. Self-drilling element screw, washer with sealing
- Ruukki's delivery

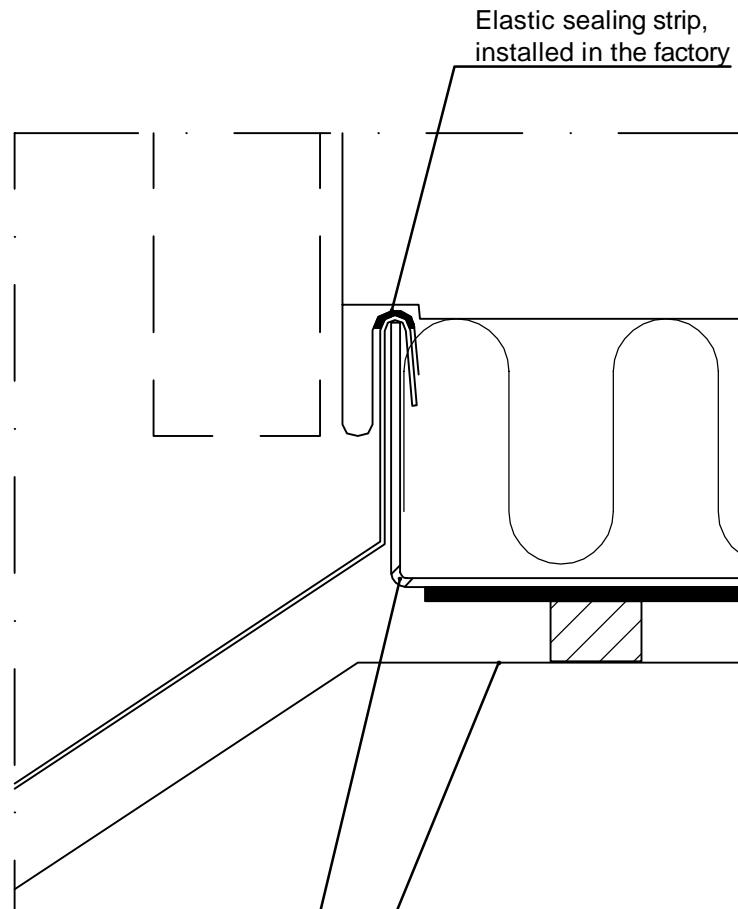
- 231. Flashing fastener, washer with sealing
- 234. Flat head flashing fastener
- 255. /S5R48038/ Spike-fastener, concrete c/c600
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 302. /EA3SS410/ Sealing strip
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer female groove full length of panel and inner female groove 60 mm from panel end

RUUKKI

Contents of drawing

**Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-7E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



Drain holes in the corner of
starter track Ø12 c/c300

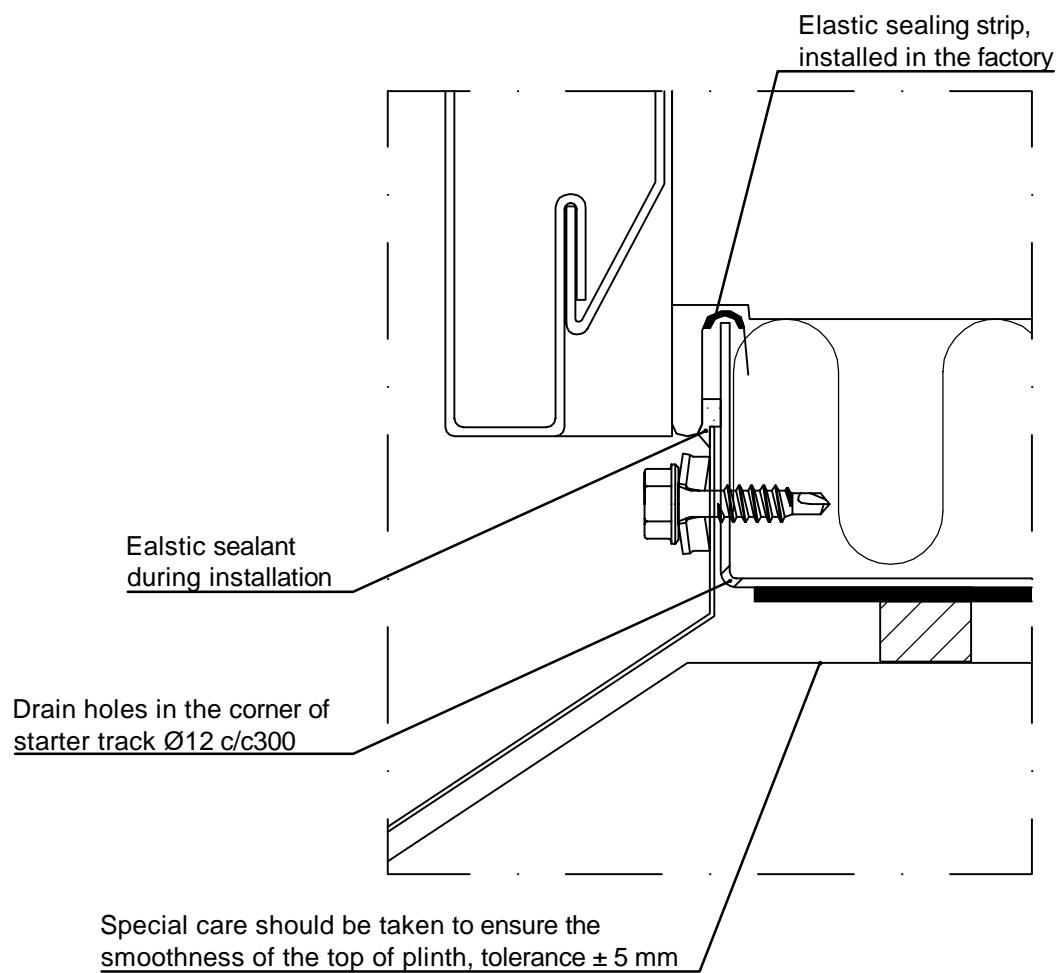
Special care should be taken to ensure the
smoothness of the top of plinth, tolerance ± 5 mm

RUUKKI

Contents of drawing

**Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-8E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.

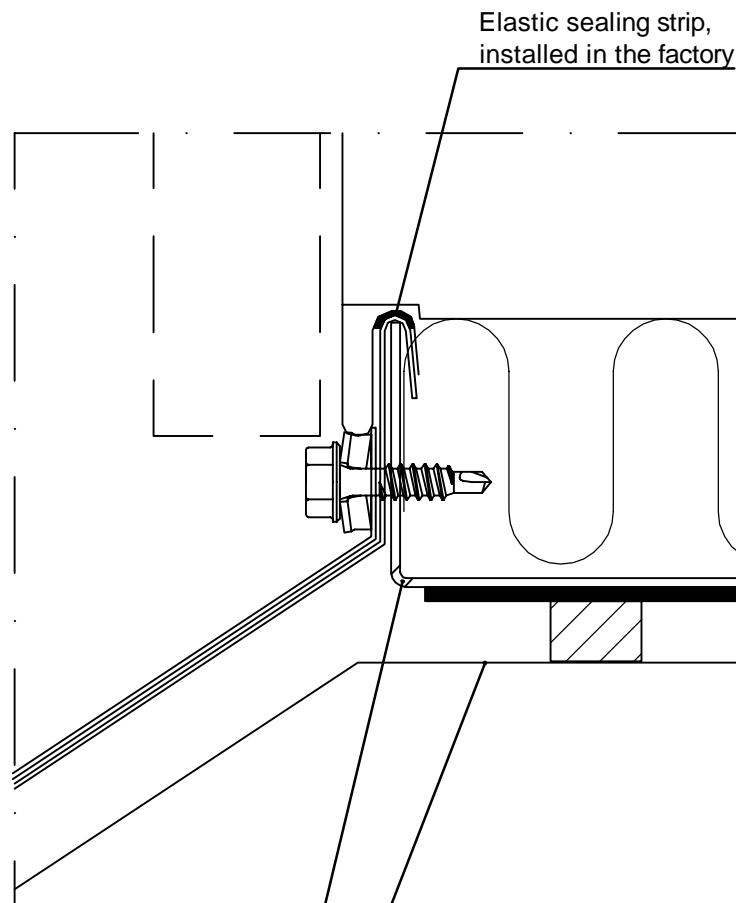


RUUKKI

Contents of drawing

**Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail**

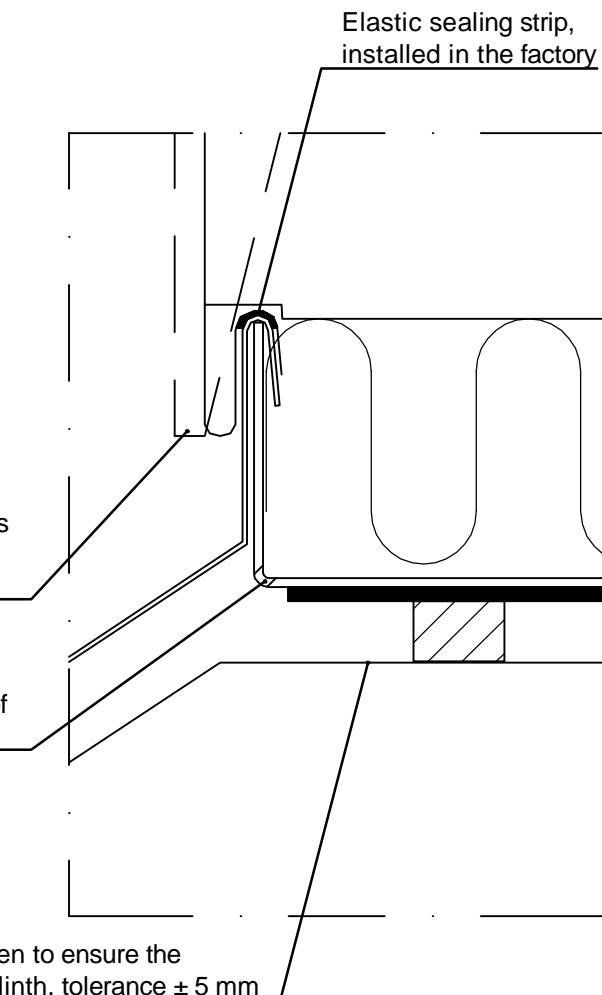
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-9E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



Special care should be taken to ensure the
smoothness of the top of plinth, tolerance ± 5 mm

**Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-10E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



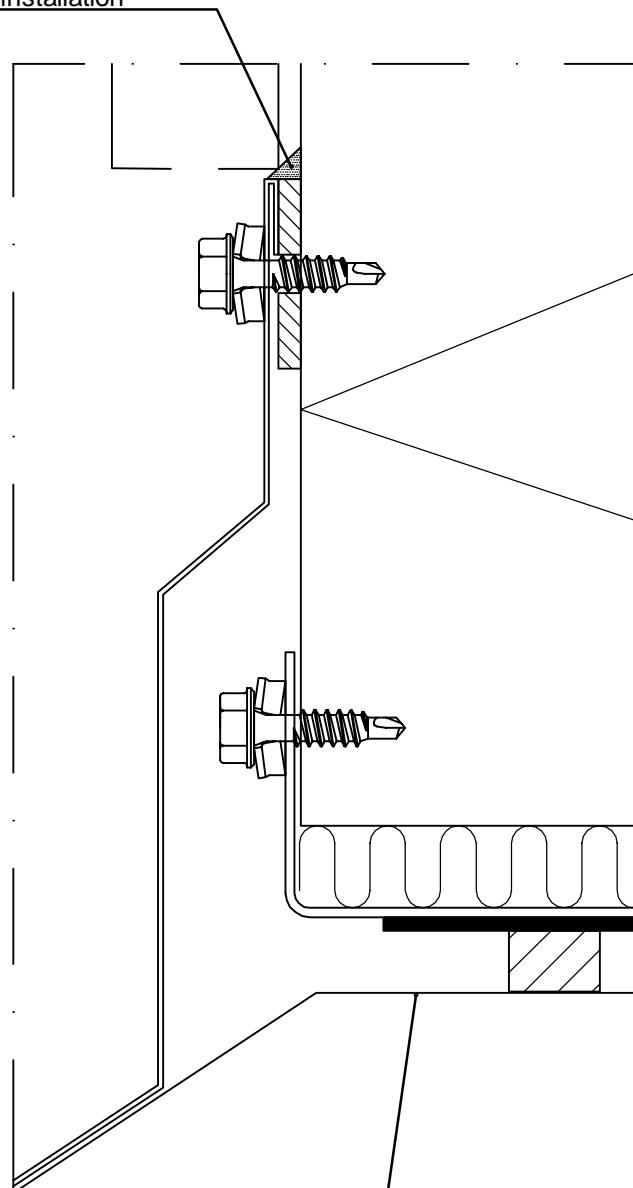
RUUKKI

Contents of drawing

**Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-11E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.

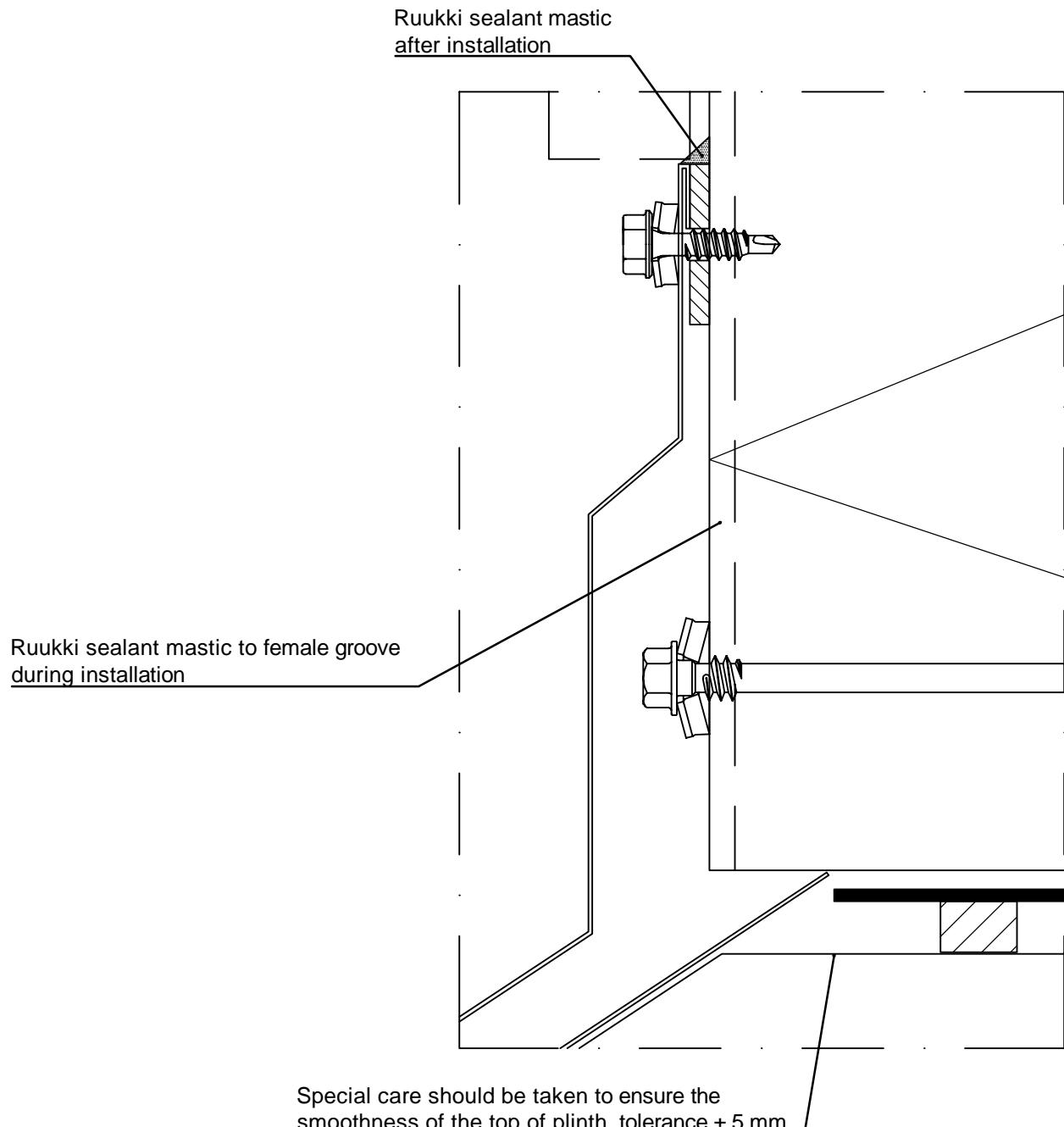
Ruukki sealant mastic
after installation



Special care should be taken to ensure the
smoothness of the top of plinth, tolerance ± 5 mm

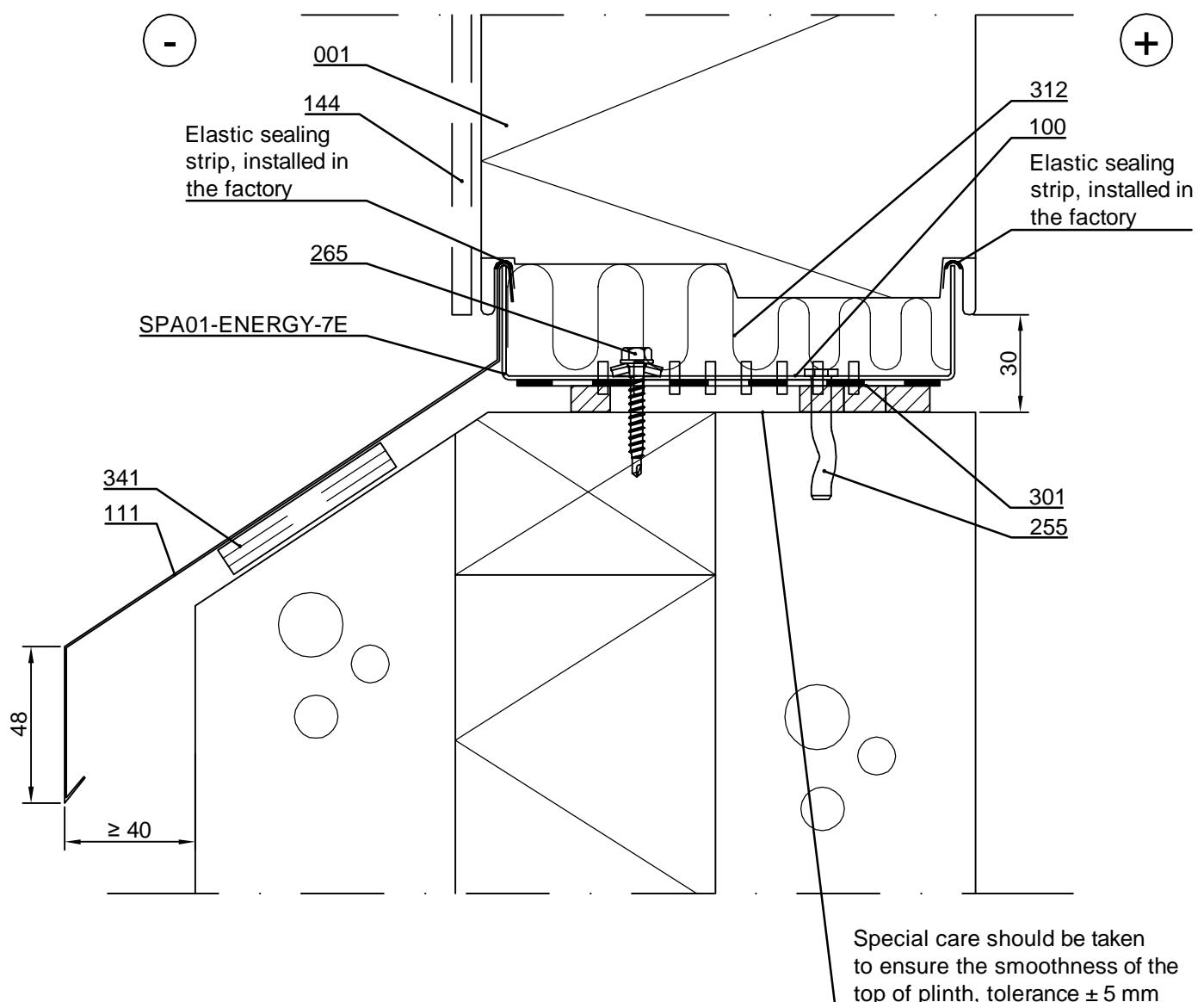
**Sandwich panel SPA ENERGY, vertical- and diagonal installation
Plinth, detail**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-12E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



Sandwich panel SPA ENERGY, horizontal inst.
Plinth, vertical section
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-30E-EN
Drawn by Ruuksi	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 100. /EA1U__/ U-Plinth purlin
- 111. /EA1P3-__/ Plinth flashing (installed simultaneously with panels)
- 144. /EA1JVI/ Vertical joint flashing, Invisible
- 255. /S5R48038/ Spike-fastener, concrete c/c600 || or
- 265. /S3H55042WA4B/ Fastener, wood c/c600
- 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- 312. /EAWS__/ Mineral wool
- 341. Plywood, if necessary

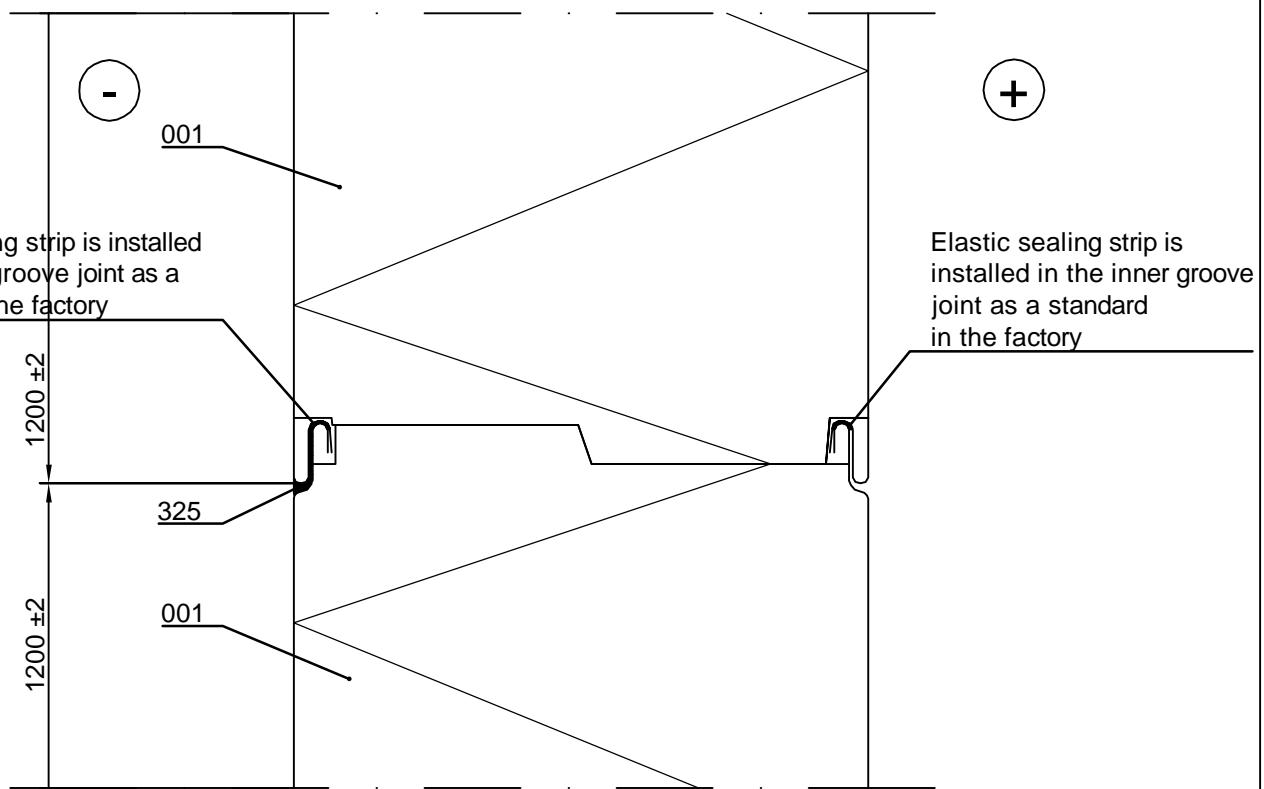
Ruukki's delivery

RUUKKI

Contents of drawing

**Sandwich panel SPA ENERGY, horizontal installation
Joint between panels, vertical section**

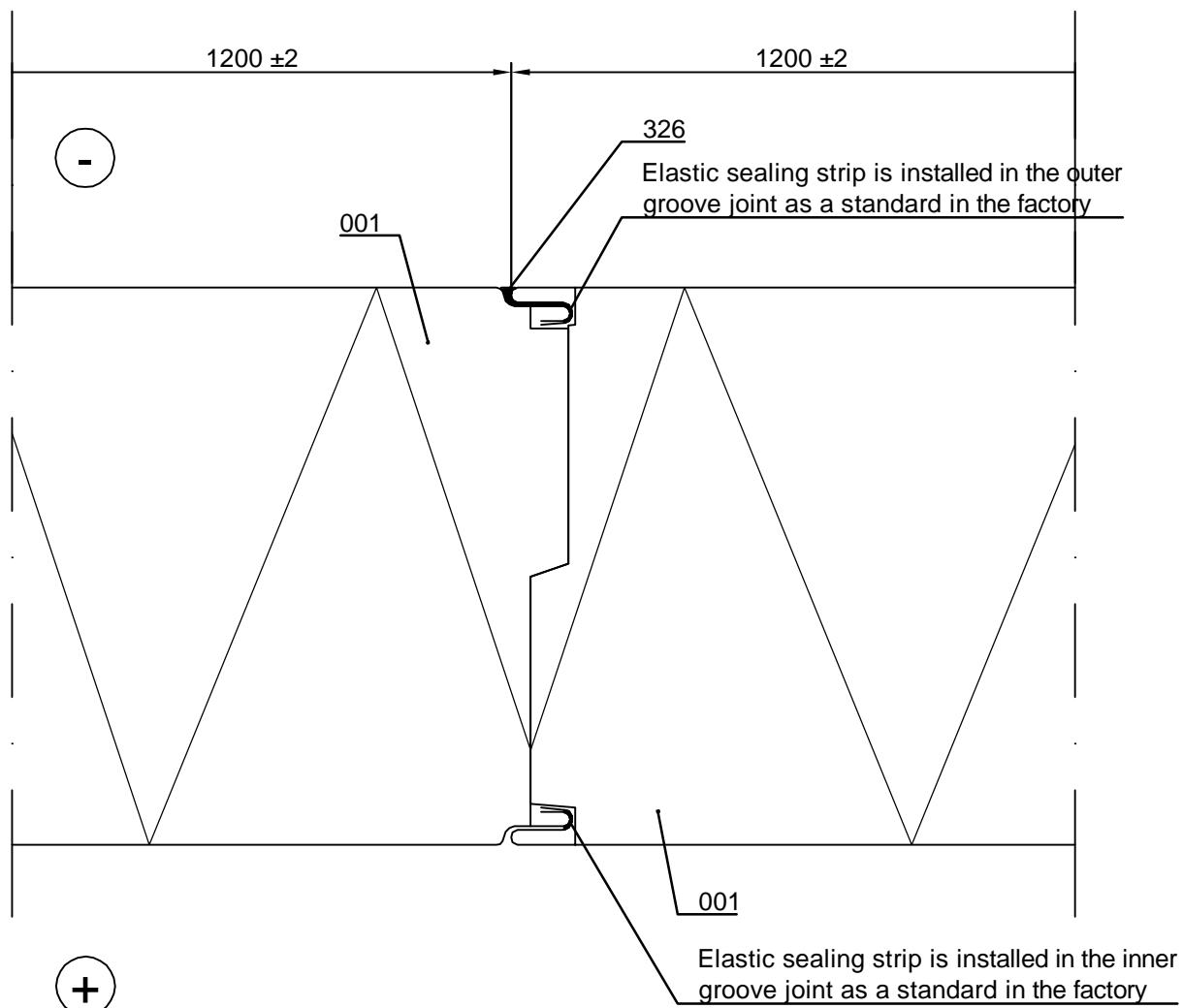
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 325. Ruukki sealant mastic
during installation to outer female groove to length equivalent to
vertical joint flashing width
- Ruukki's delivery

**Sandwich panel SPA ENERGY, vertical- and diagonal installation
Joint between panels, horizontal section**

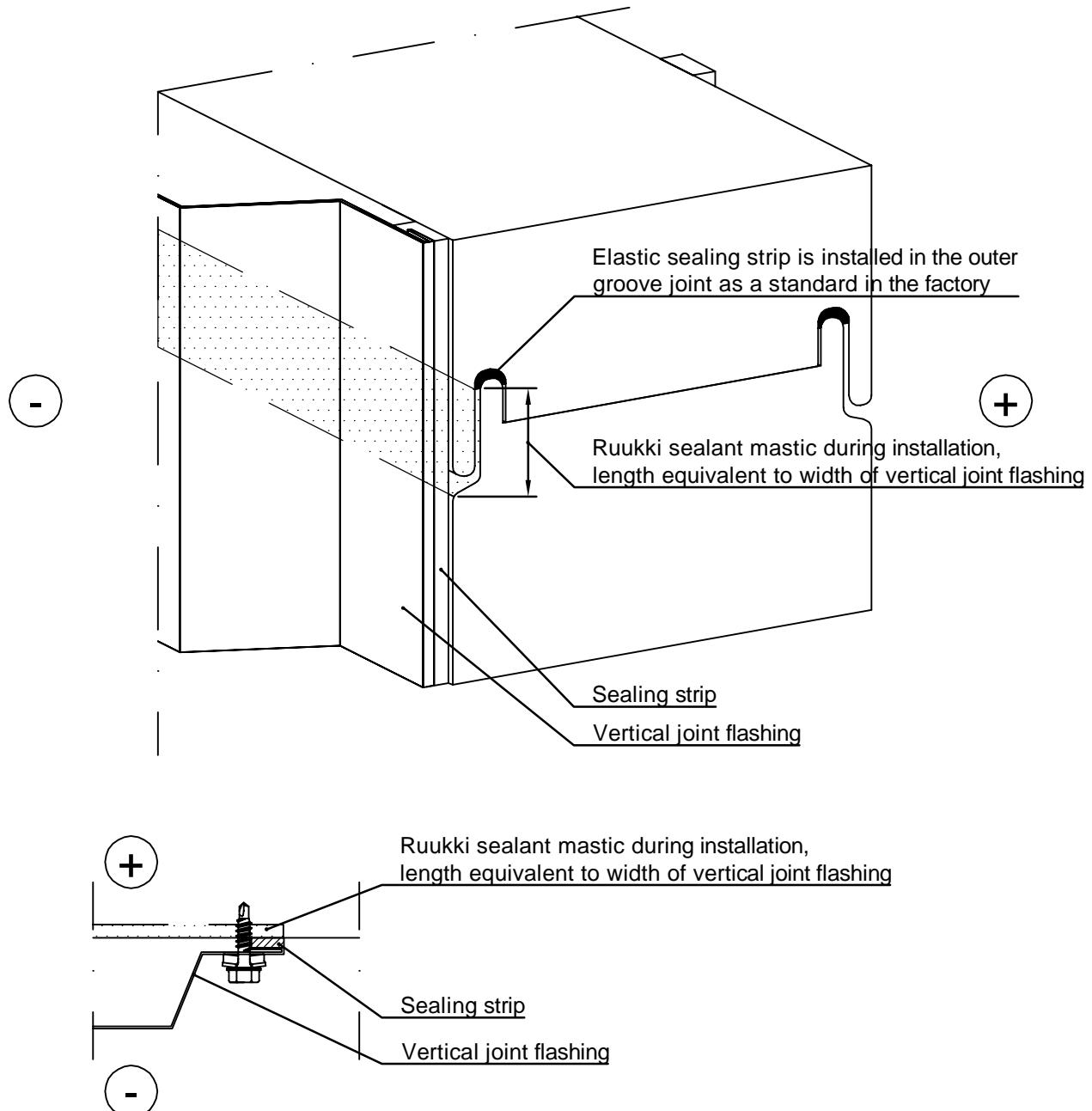
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 325. Ruukki sealant mastic
during installation to outer female groove in full length of panel and
inner female groove 60 mm from panel end
- Ruukki's delivery

**Sandwich panel SPA ENERGY,
horizontal, vertical- and diagonal installation
Joint between panels**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



Horizontal installation:

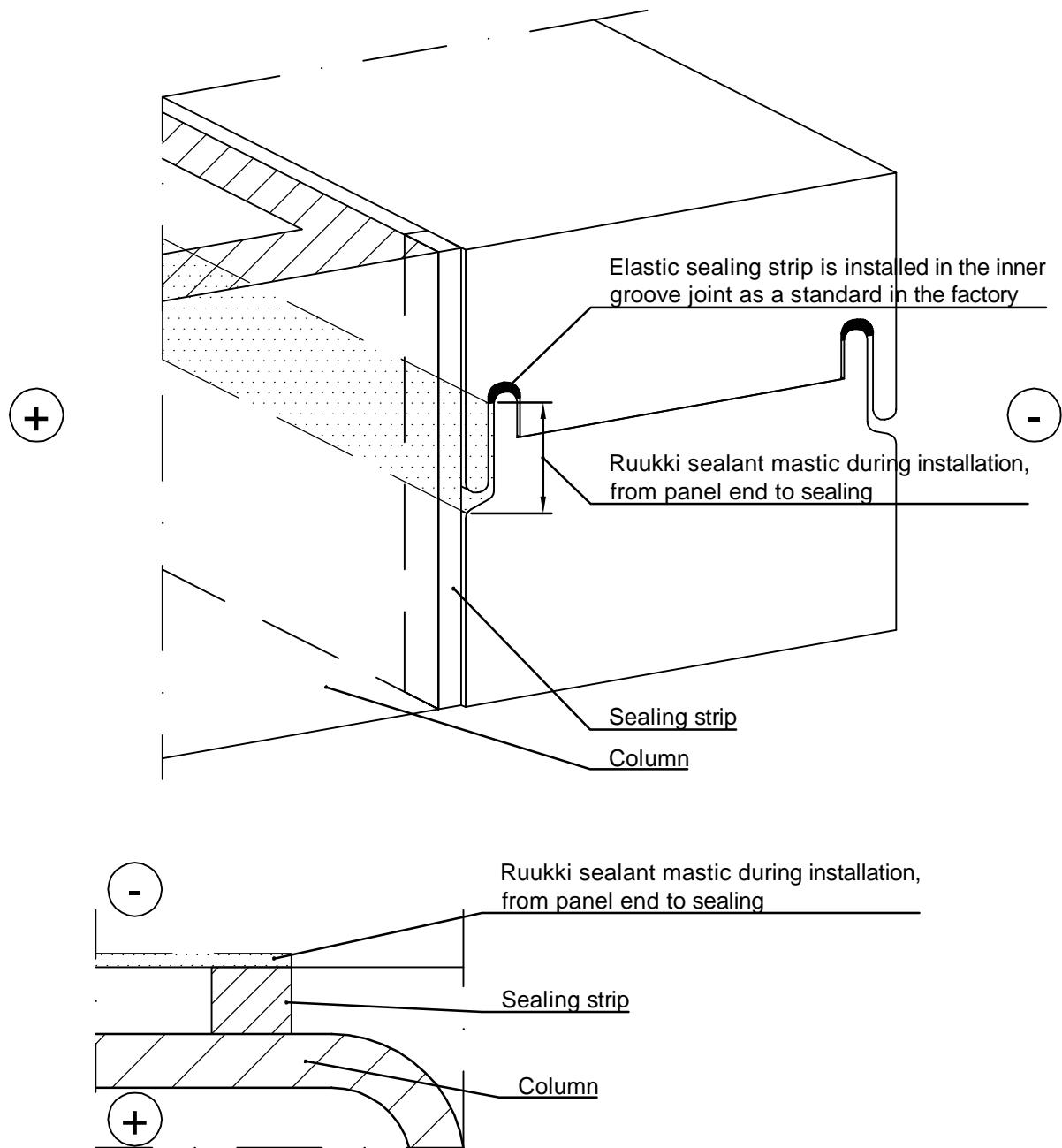
Ruukki sealant mastic during installation to outer female groove in length equivalent to width of vertical joint flashing and to inner female groove from panel end to sealing. It is important that the groove is completely filled with sealant mastic, i.e. it must be applied before interlocking the joint.

Vertical installation:

Ruukki sealant mastic during installation to outer female groove in full length of panel and inner female groove 60 mm in length. It is important that the groove is completely filled with sealant mastic, i.e. it must be applied before interlocking the joint.

**Sandwich panel SPA ENERGY,
horizontal, vertical- and diagonal installation
Inner joint between panels**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



Horizontal installation:

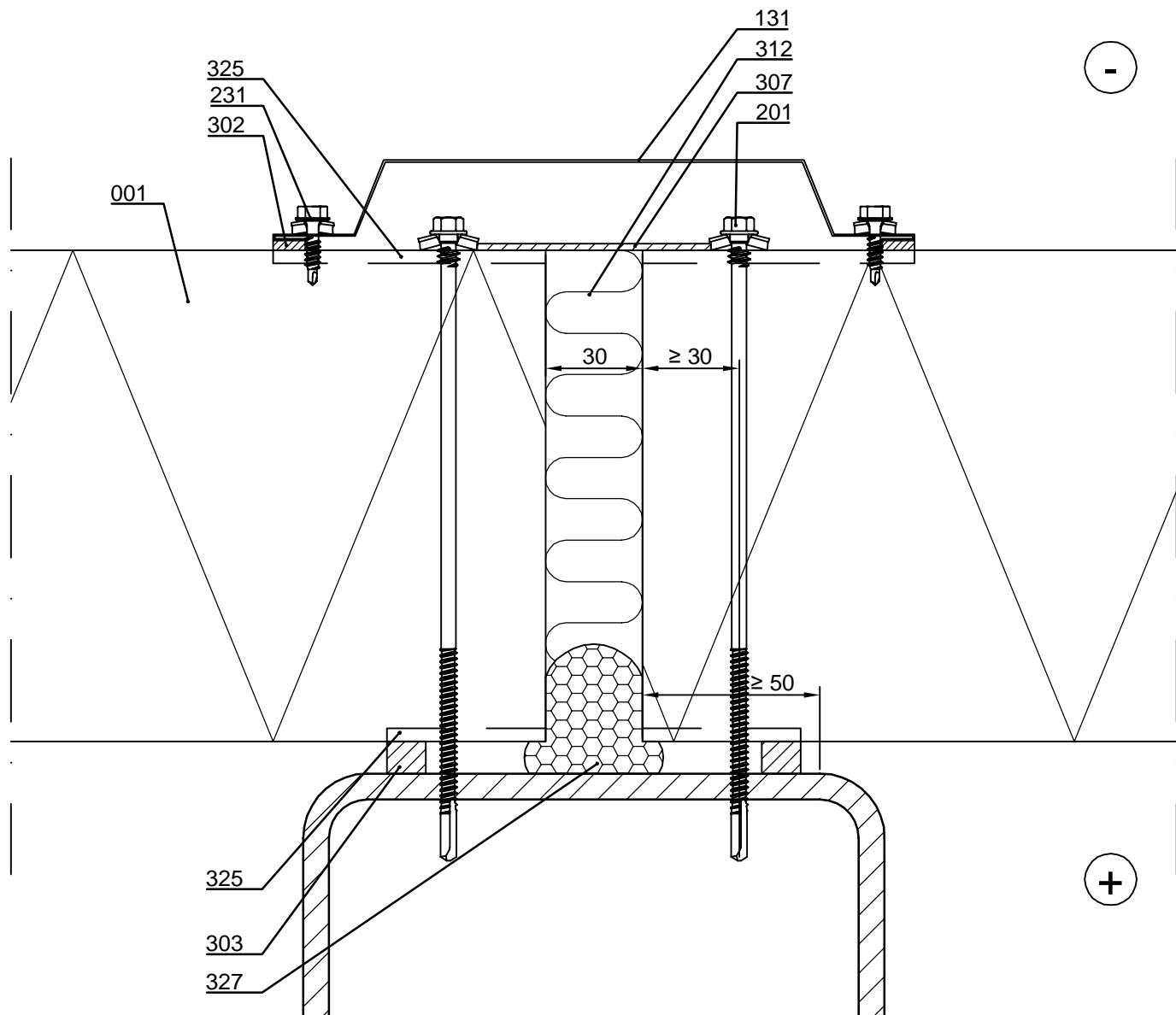
Ruukki sealant mastic during installation to outer female groove in length equivalent to width of vertical joint flashing and to inner female groove from panel end to sealing. It is important that the groove is completely filled with sealant mastic, i.e. it must be applied before interlocking the joint.

Vertical installation:

Ruukki sealant mastic during installation to outer female groove in full length of panel and inner female groove 60 mm in length. It is important that the groove is completely filled with sealant mastic, i.e. it must be applied before interlocking the joint.

Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
Rectangle hollow section column, option 1

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



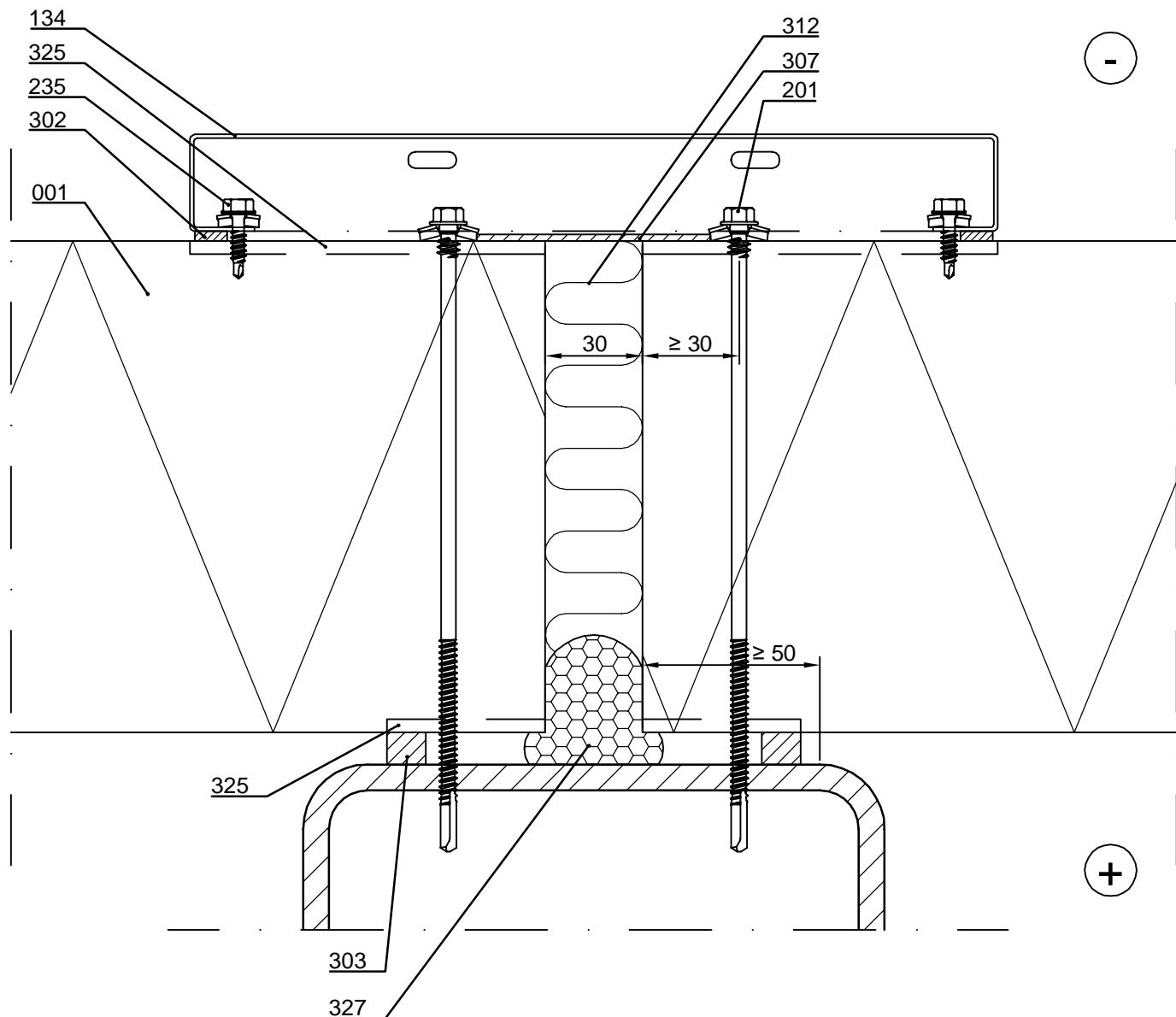
- 001. Sandwich panel SPA ENERGY
- 131. /EA1JV1/ Vertical joint flashing
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)

- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
Rectangle hollow section column, option 3

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

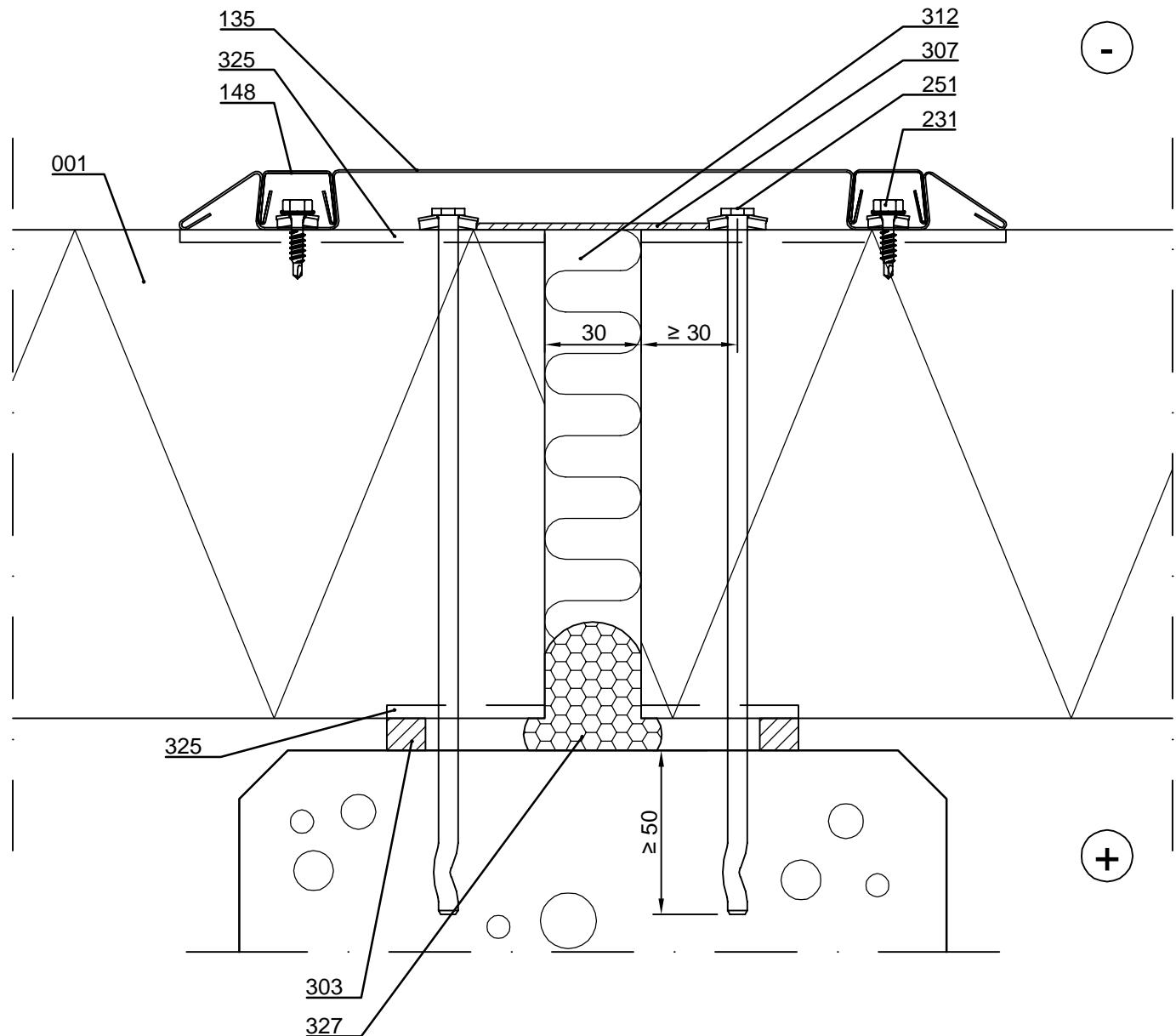


- 001. Sandwich panel SPA ENERGY
- 134. /EA1JV10-11/ Vertical joint panel (h = 600 or 1200)
- 201. Self-drilling element screw, washer with sealing
- 235. Joint panel fastener, stainless steel, washer with sealing
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
Concrete column, option 4

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 135. /EA1JV4/ Vertical joint flashing
- 148. /EA1VCO/ Vertical cover flashing
- 251. Spike panel fastener, washer with sealing
- 231. Flashing fastener, washer with sealing
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm

- Ruukki's delivery

- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

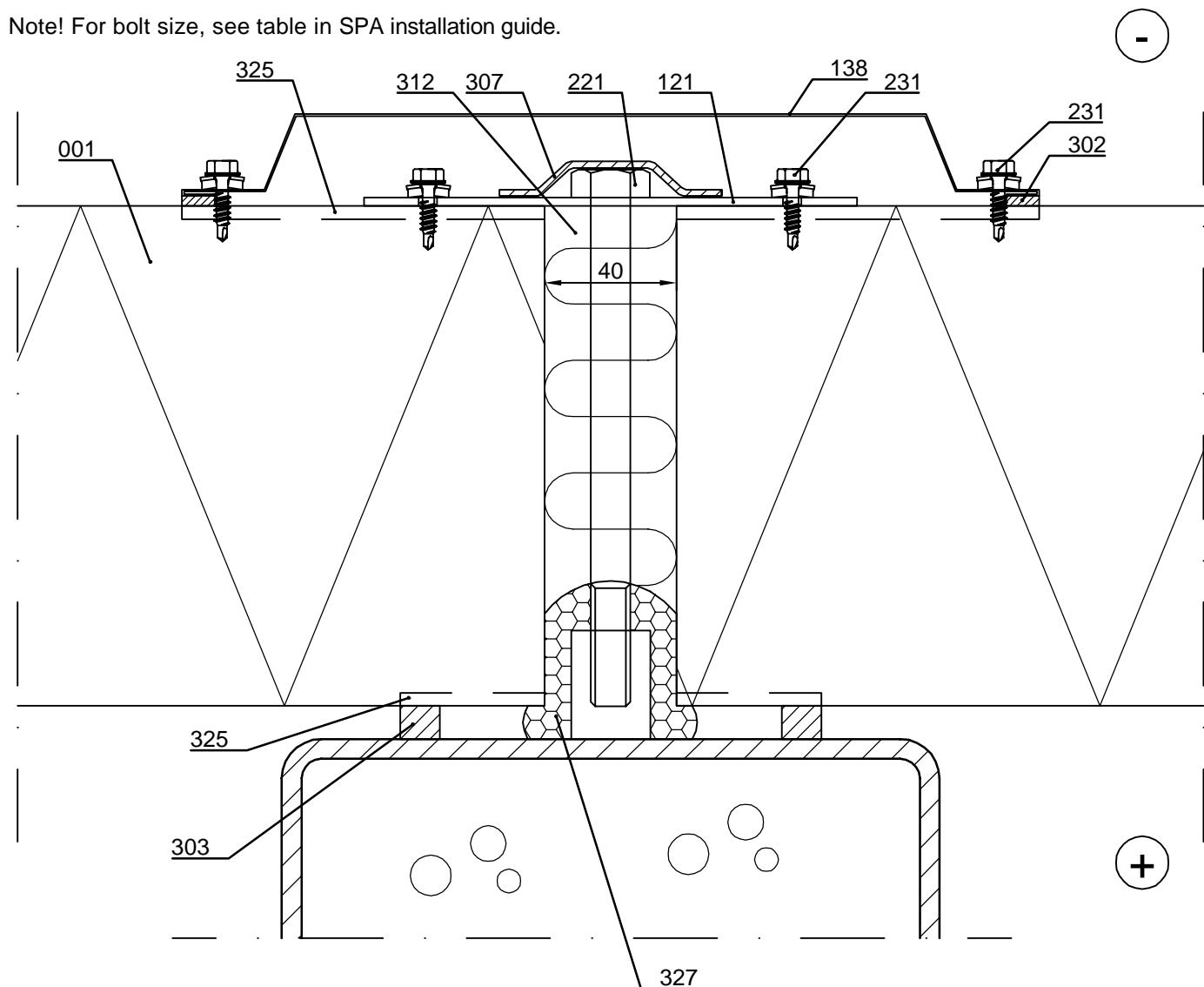
Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
Vemo fastening, option 6

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! The lowest and every 5th panel vertically and panel above an opening must be fixed to support by fasteners going through the panel.

Note! Concrete casting is made in the factory or for a construction site related reason made at site before the panel installation.

Note! For bolt size, see table in SPA installation guide.



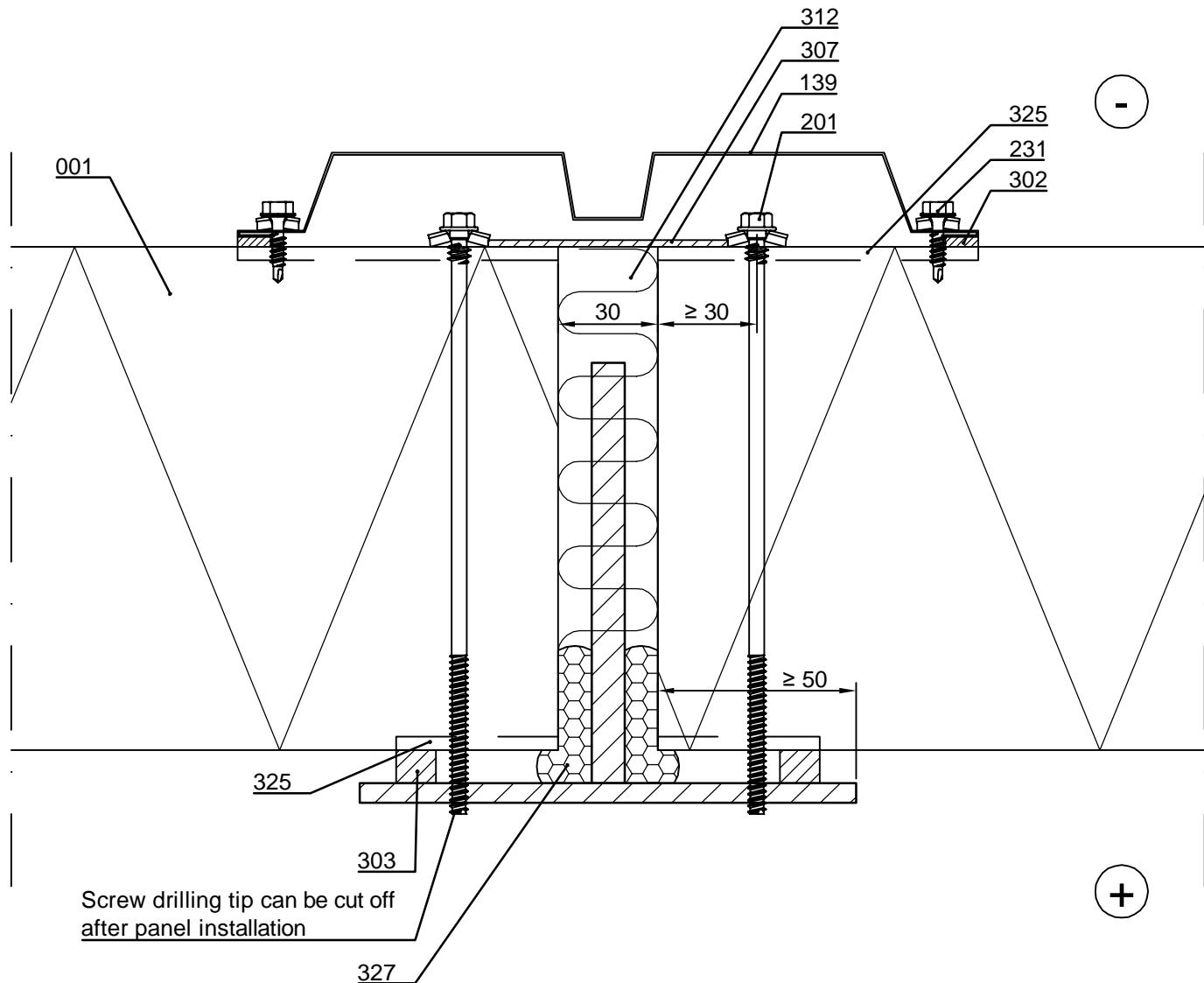
- 001. Sandwich panel SPA ENERGY
- 121. /EA6FP/ Fastening plate
- 138. /EA1JV2/ Vertical joint flashing
- 221. Internal threaded socket and hex bolt
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas)

- Ruukki's delivery

- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
T-steel, parapet, option 7

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-7E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



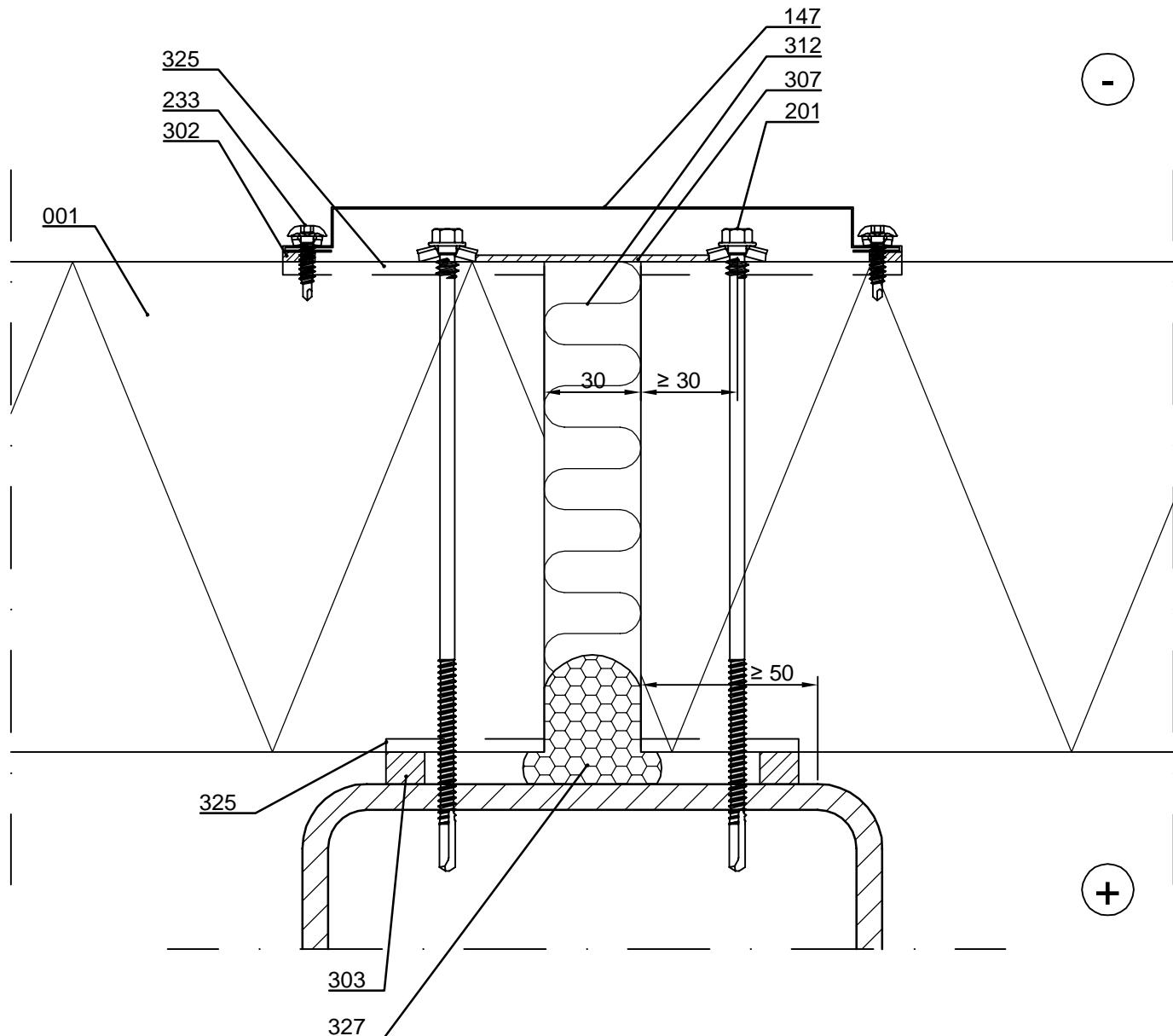
- 001. Sandwich panel SPA ENERGY
- 139. /EA1JV3/ Vertical joint flashing
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip

- Ruukki's delivery

- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
Rectangle hollow section column, option 8

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-8E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



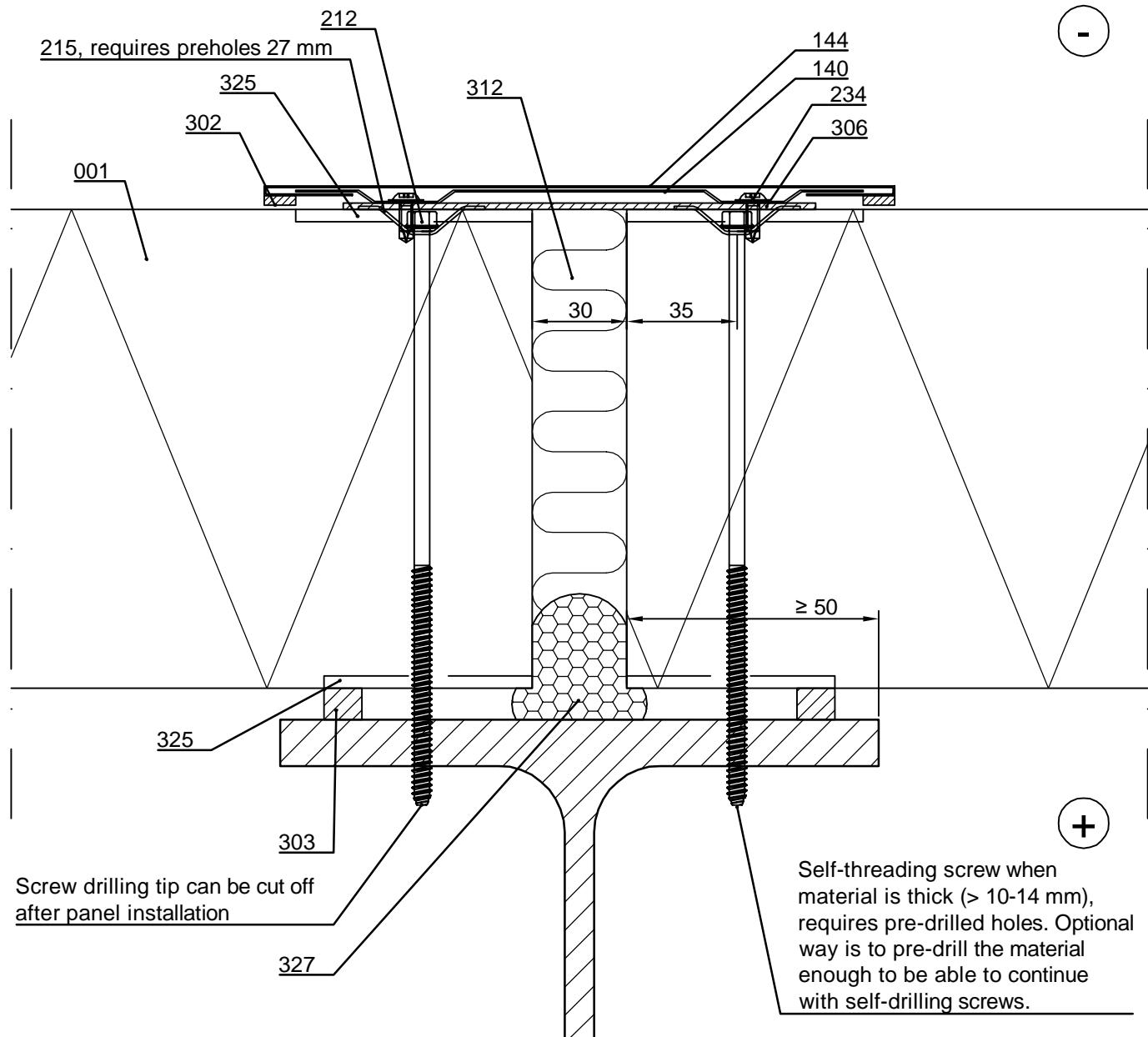
- 001. Sandwich panel SPA ENERGY
- 147. /EA1JVM/ Vertical joint flashing module
- 201. Self-drilling element screw, washer with sealing
- 233. /S1T48020L02A0RR / Flashing fastener
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip

- Ruukki's delivery

- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS / Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to
vertical joint flashing width and to inner female
groove from panel end to sealing
- 327. Elastic polyurethane foam

Sandwich panel SPA ENERGY, horizontal inst.
Vertical joint, horizontal section
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

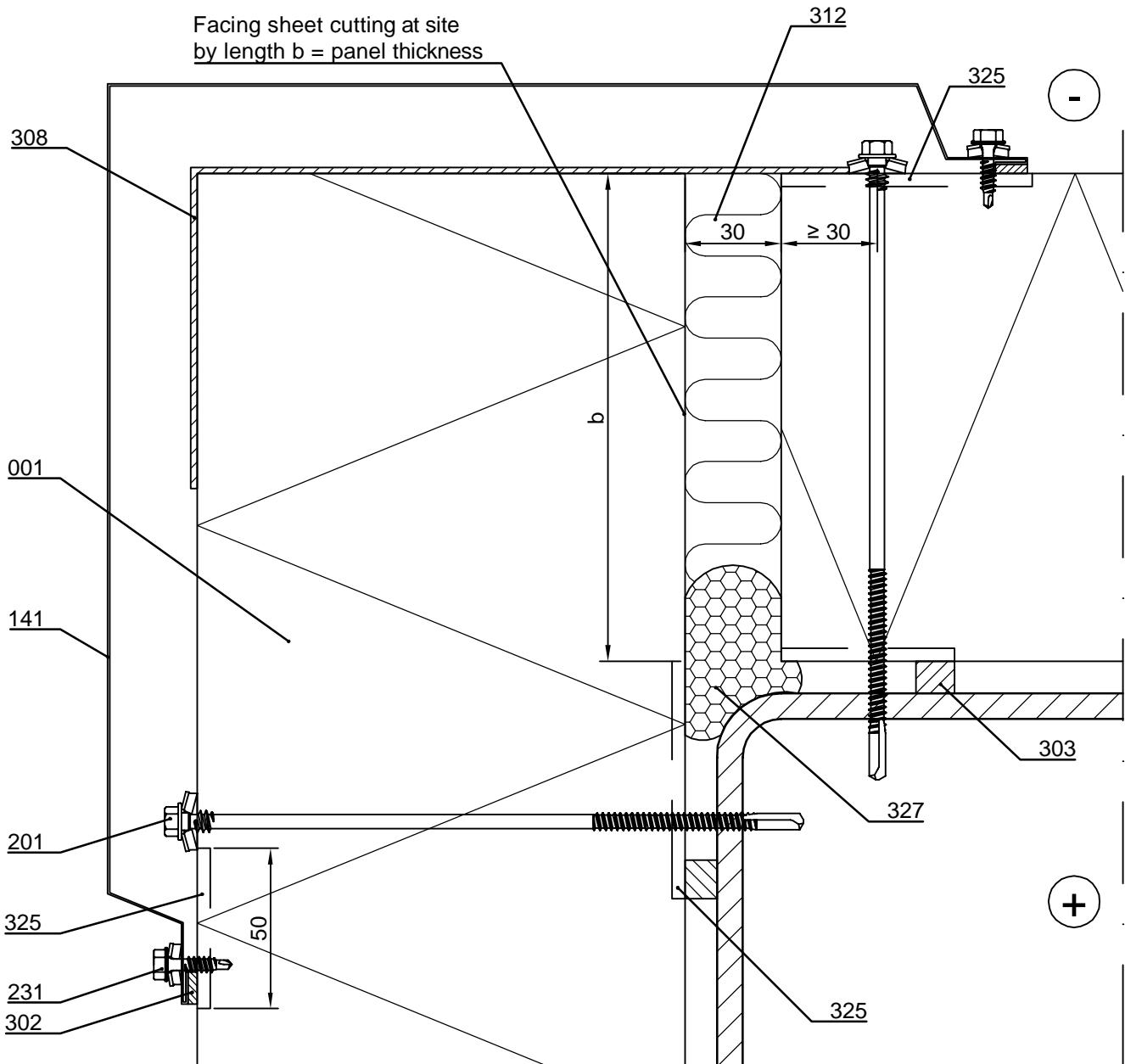


- 001. Sandwich panel SPA ENERGY
- 140. /EA1JVB4/ Vertical bottom flashing Invisible
- 144. /EA1JVI/ Vertical joint flashing Invisible
- 212. Self-threading element screw, without washer
- 215. /EA2W40-910S/ Countersink washer
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- Ruukki's delivery

- 303. /EA3SS1210/ Sealing strip
- 306. Ruukki Wind Joint Tape 150 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
Rectangle hollow section column, option 1

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 141. /EA1EC1-3/ External corner flashing,
recommended panel thickness ≤ 150 mm
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas)

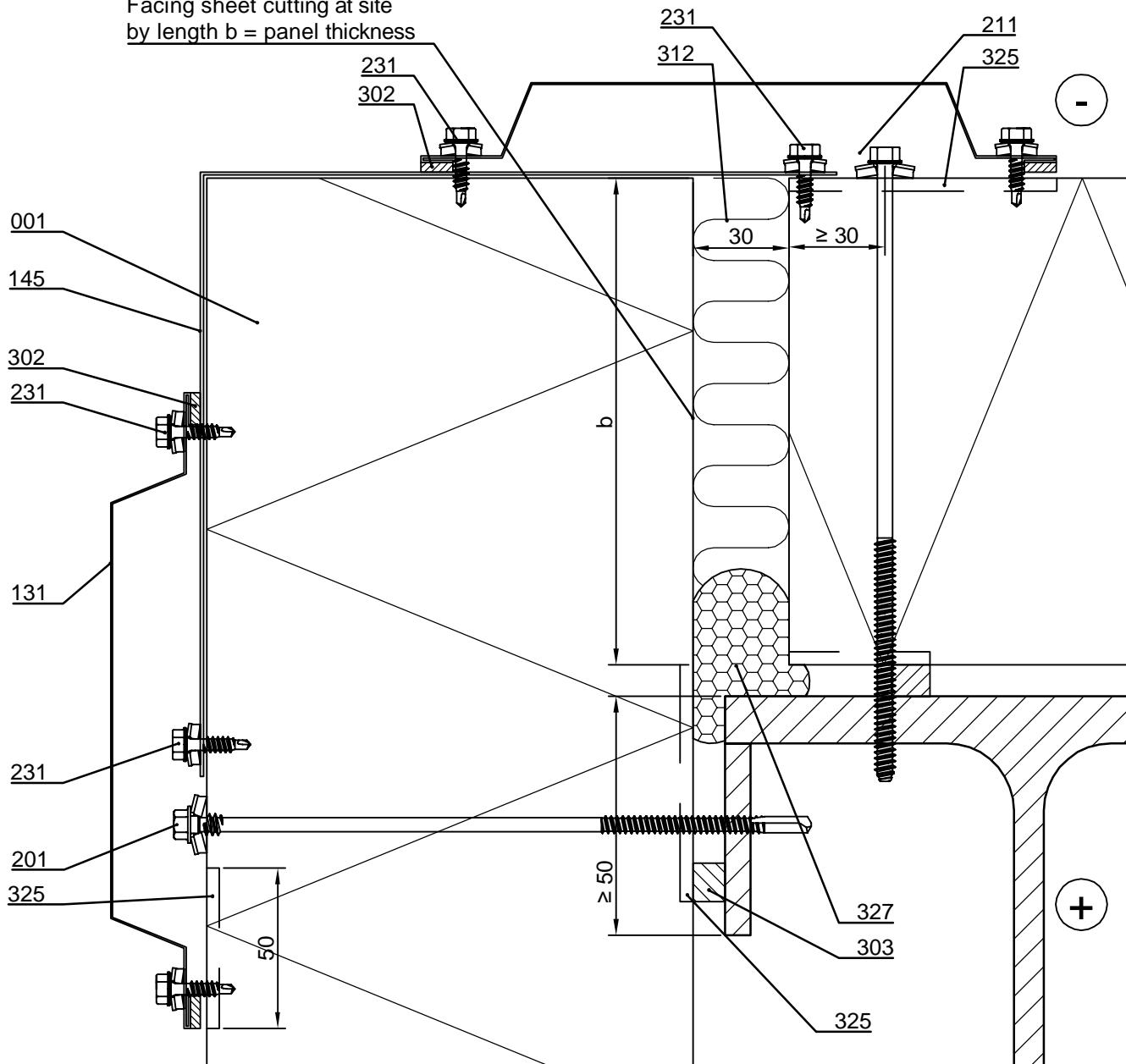
- Ruukki's delivery

- 303. /EA3SS1210/ Sealing strip
- 308. Ruukki Wind Joint Tape 300 / 370 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to
vertical joint flashing width and to inner female
groove from panel end to sealing
- 327. Elastic polyurethane foam

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
I-steel profile, option 2

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Facing sheet cutting at site
by length b = panel thickness



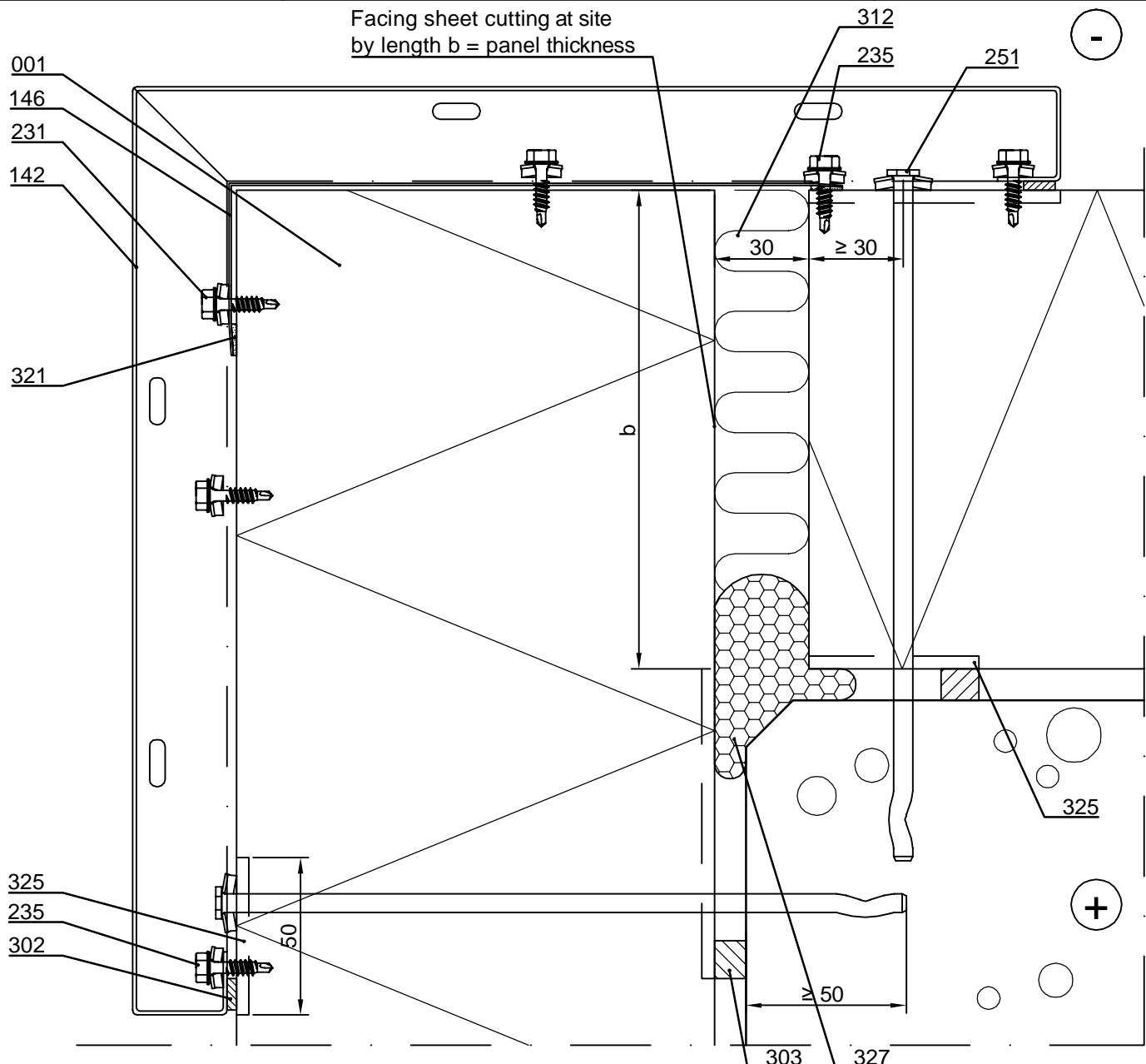
- 001. Sandwich panel SPA ENERGY
- 131. /EA1JV1/ Vertical joint flashing
- 145. /EA1EC10-__/ External corner flashing, (limited range of colours)
- 201. Self-drilling element screw, washer with sealing
- 211. Self-threading element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)

- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS__/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
Concrete column, option 3

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 142. /EA1EC11-14/ External corner panel
- 146. /EA1EC9-__/ External corner flashing
- 231. Flashing fastener, washer with sealing
- 235. Joint panel fastener, stainless steel, washer with sealing
- 251. Spike panel fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)

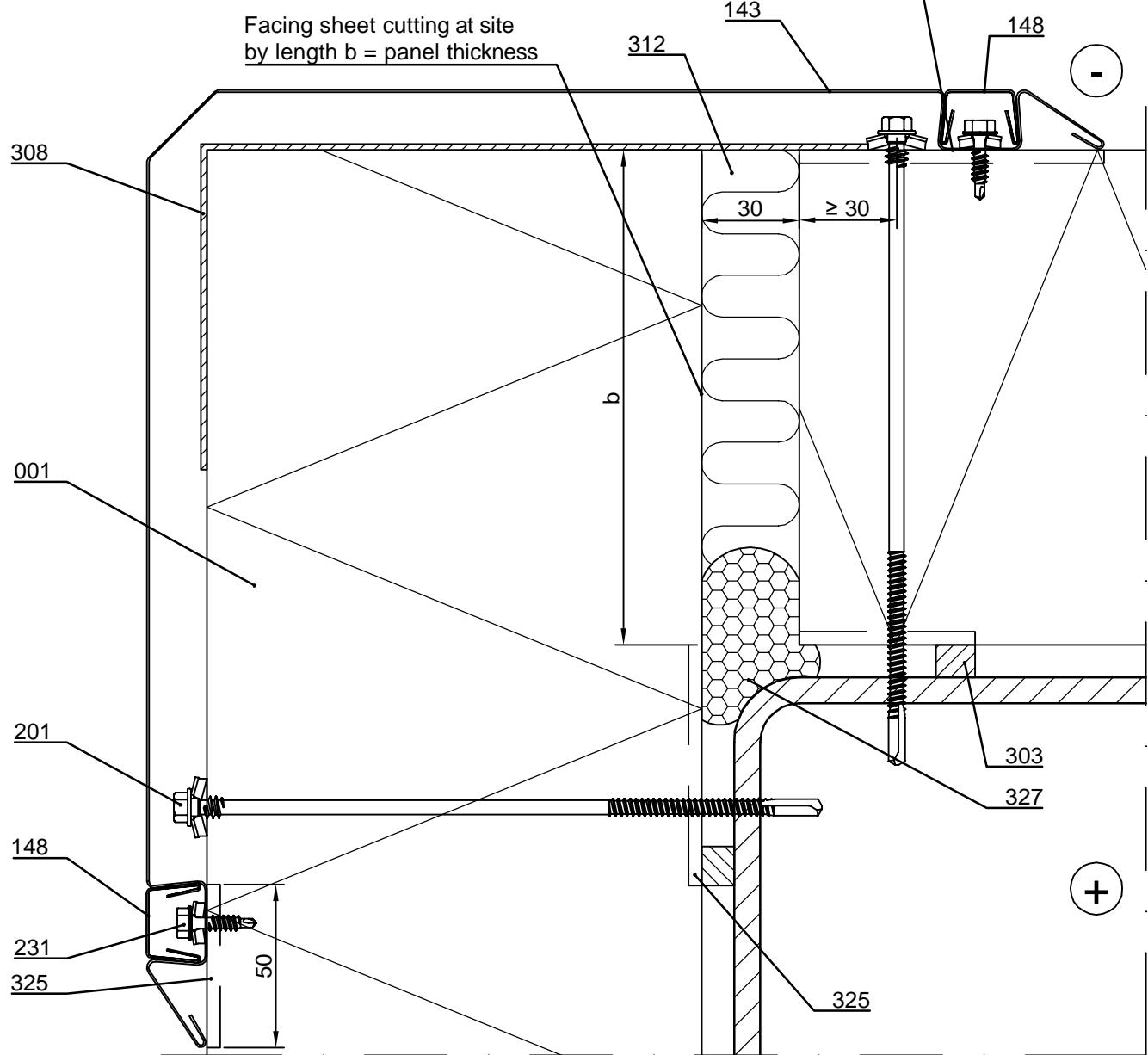
- Ruukki's delivery

- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS __ / Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
Rectangle hollow section column, option 4

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

321, sealant under the flashing during installation



- 001. Sandwich panel SPA ENERGY
- 143. /EA1EC5/ External corner flashing, recommended panel thickness ≤ 150 mm
- 148. /EA1VCO/ Vertical cover flashing
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 303. /EA3SS1210/ Sealing strip
- 308. Ruukki Wind Joint Tape 300 / 370 mm

- Ruukki's delivery

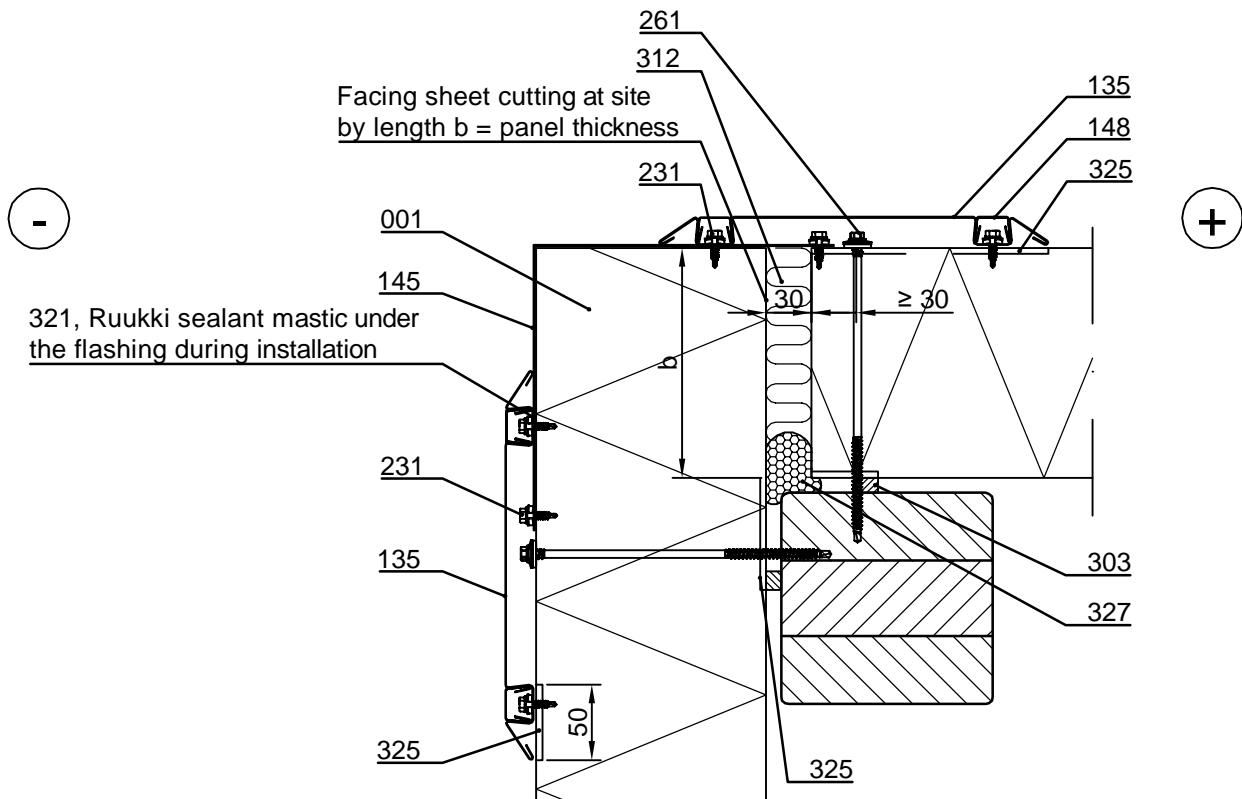
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam



Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
Laminated timber column, option 5

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



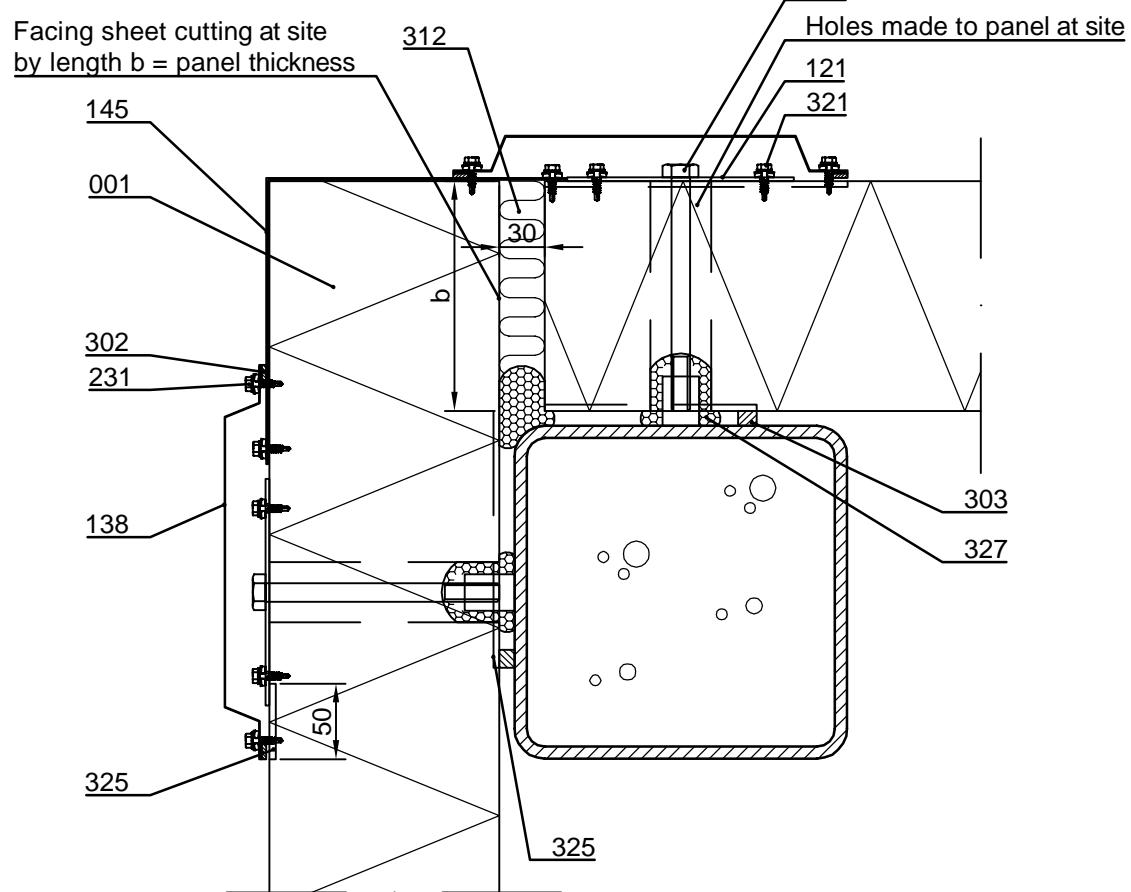
- 001. Sandwich panel SPA ENERGY
- 135. /EA1JV4/ Vertical joint flashing
- 145. /EA1C10-____/Vertical joint flashing, t = 1 mm / 1.2 mm (limited range of colours)
- 148. /EA1VCO/ Vertical cover flashing
- 261. Self-drilling element screw to wood, washer with sealing
- 231. Flashing fastener, washer with sealing
- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female
groove from panel end to sealing
- 327. Elastic polyurethane foam

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Note! The lowest and every 5th panel vertically and panels above an opening must be fixed to support by fasteners going through the panel.

Note! Concrete casting is made in the factory or for a construction site related reason made at site before the panel installation.

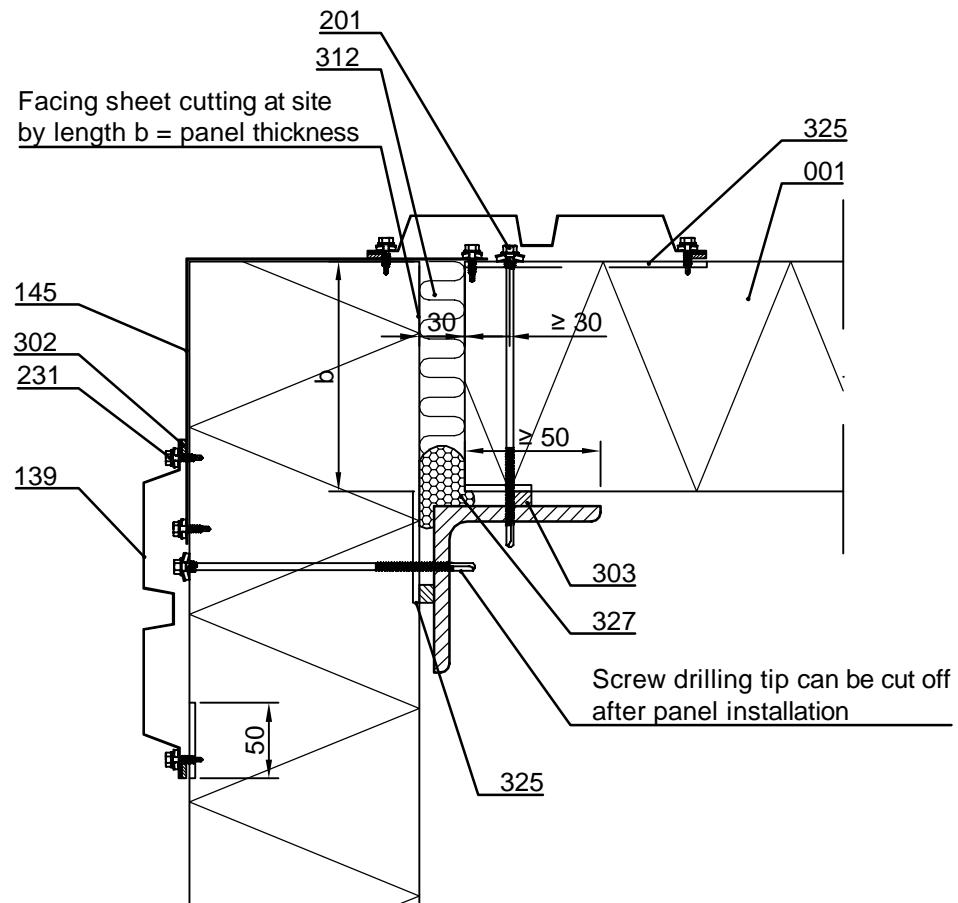
Note! For bolt size, see SPA installation guide



- 001. Sandwich panel SPA ENERGY
- 121. /EA6FP/ Fastening plate
- 138. /EA1JV2/ Vertical joint flashing
- 145. /EA1C10-__/ External corner flashing, $t = 1 \text{ mm} / 1.2 \text{ mm}$ (limited range of colours)
- 221. Internal threaded socket and hex bolt
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS__/ Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam
- Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
L-steel, parapet, option 9

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-9E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Secondary steel supports for panels according to structural designer.

The structures on the side of the roof are displayed in the parapet details.

- 001. Sandwich panel SPA ENERGY
- 139. /EA1JV3/ Vertical joint flashing
- 145. /EA1C10-__/ Vertical joint flashing, $t = 1 \text{ mm} / 1.2 \text{ mm}$ (limited range of colours)
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS__/ Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Ruukki's delivery

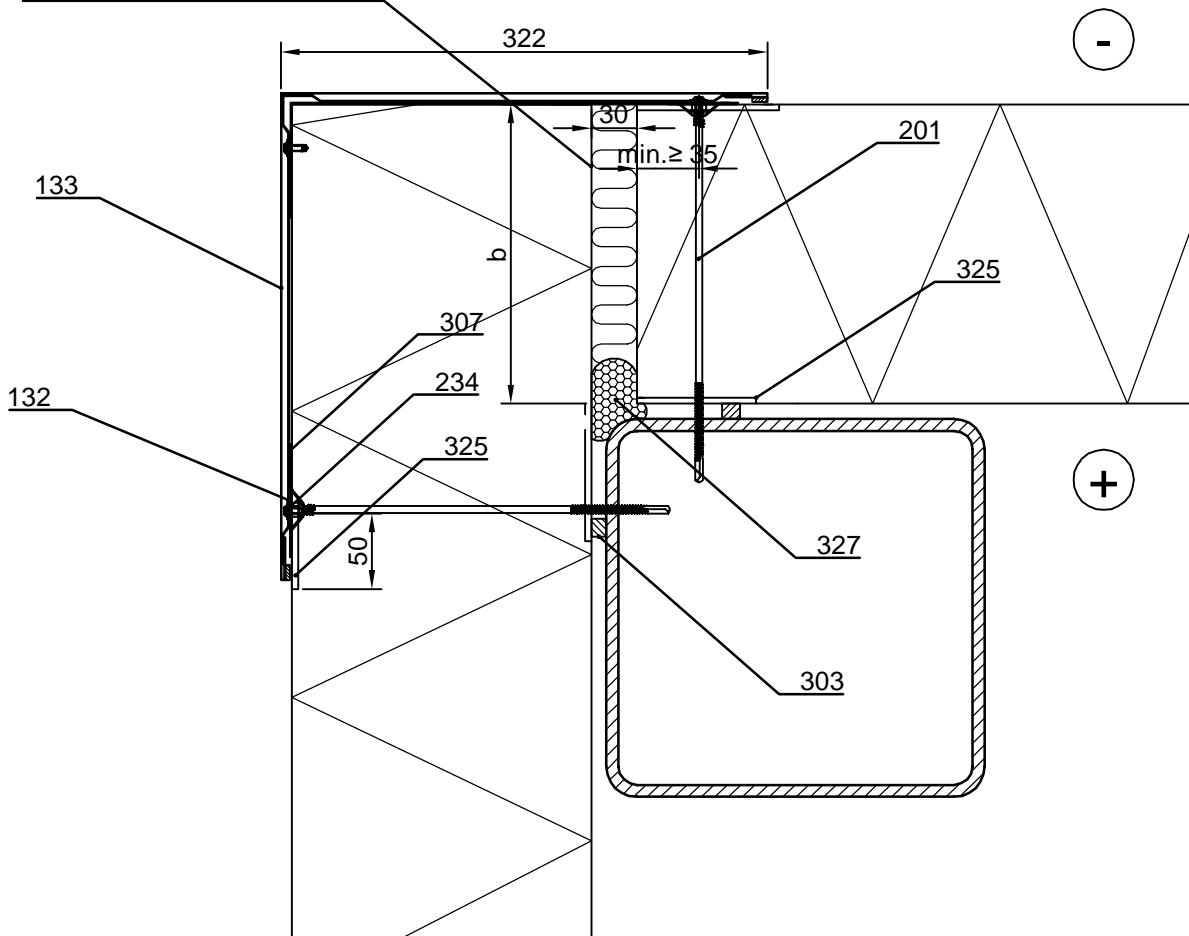


Contents of drawing

Sandwich panel SPA ENERGY 150-200,
horizontal inst., External corner, horizontal section
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Facing sheet cutting at site
by length $b = \text{panel thickness}$



Flashings 132 and 133 are used in all < 230 mm panels.

- 001. Sandwich panel SPA ENERGY
- 132. /EA1EXB4/ Corner bottom flashing Invisible
- 133. /EA1ECI/ External corner flashing Invisible
- 201. Self-drilling element screw, without washer
- 215. /EA2W40-910S/ Countersink washer
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas)

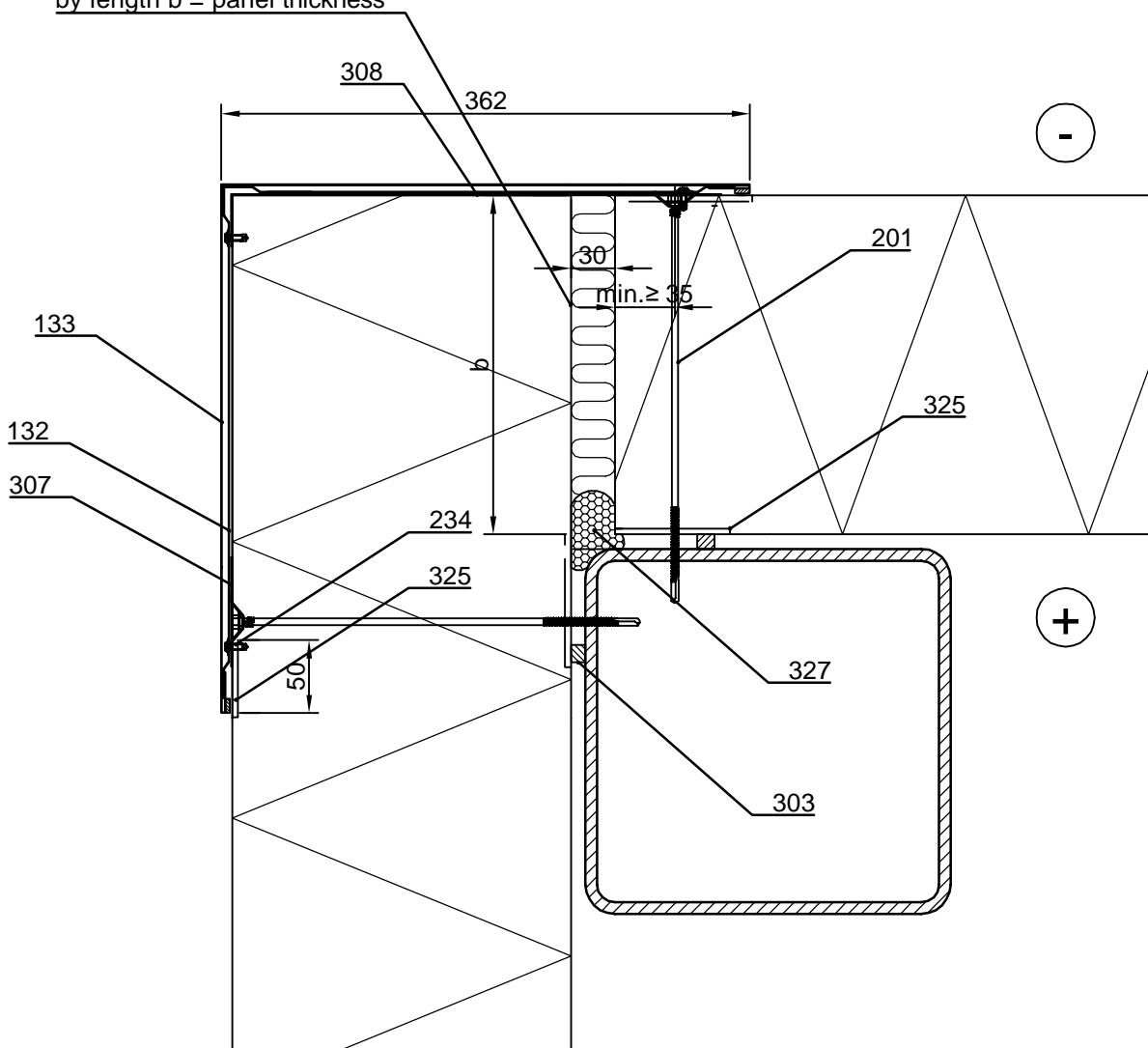
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 308. Ruukki Wind Joint Tape 300 / 370 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and inner female groove in length of sealing
- 327. Elastic polyurethane

☒ Ruukki's delivery

Sandwich panel SPA ENERGY 230, horizontal inst.
External corner, horizontal section
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-31E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Facing sheet cutting at site
by length $b = \text{panel thickness}$



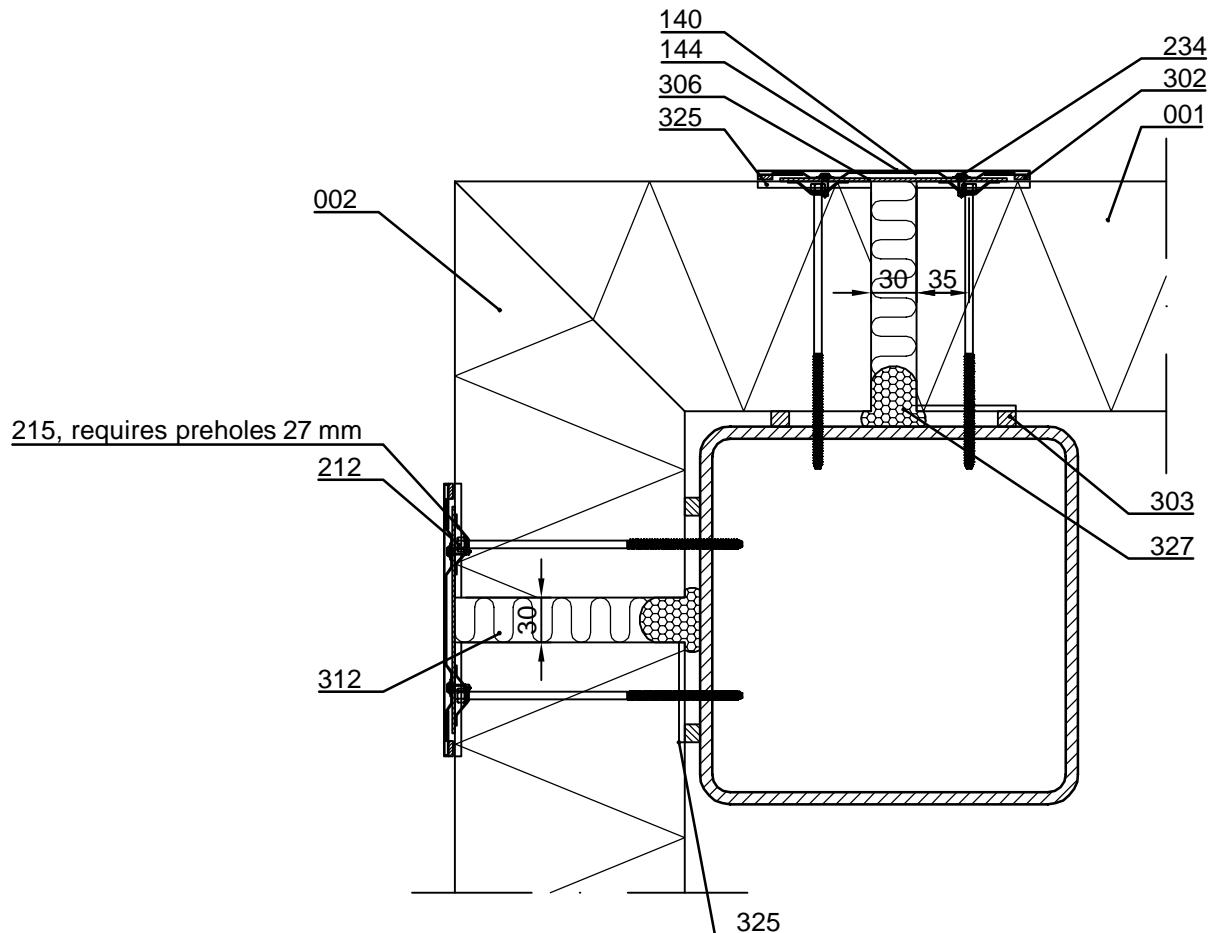
- 001. Sandwich panel SPA ENERGY
- 132. /EA1EXB6/ Corner bottom flashing Invisible
- 133. /EA1ECI2/ External corner flashing Invisible
- 201. Self-drilling element screw, without washer
- 215. /EA2W40-910S/ Countersink washer
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas)

Ruukki's delivery

- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 308. Ruukki Wind Joint Tape 300 / 370 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length
equivalent to vertical joint flashing width and
inner female groove in length of sealing
- 327. Elastic polyurethane

Sandwich panel SPA ENERGY, horizontal inst.
External corner, horizontal section
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-33E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

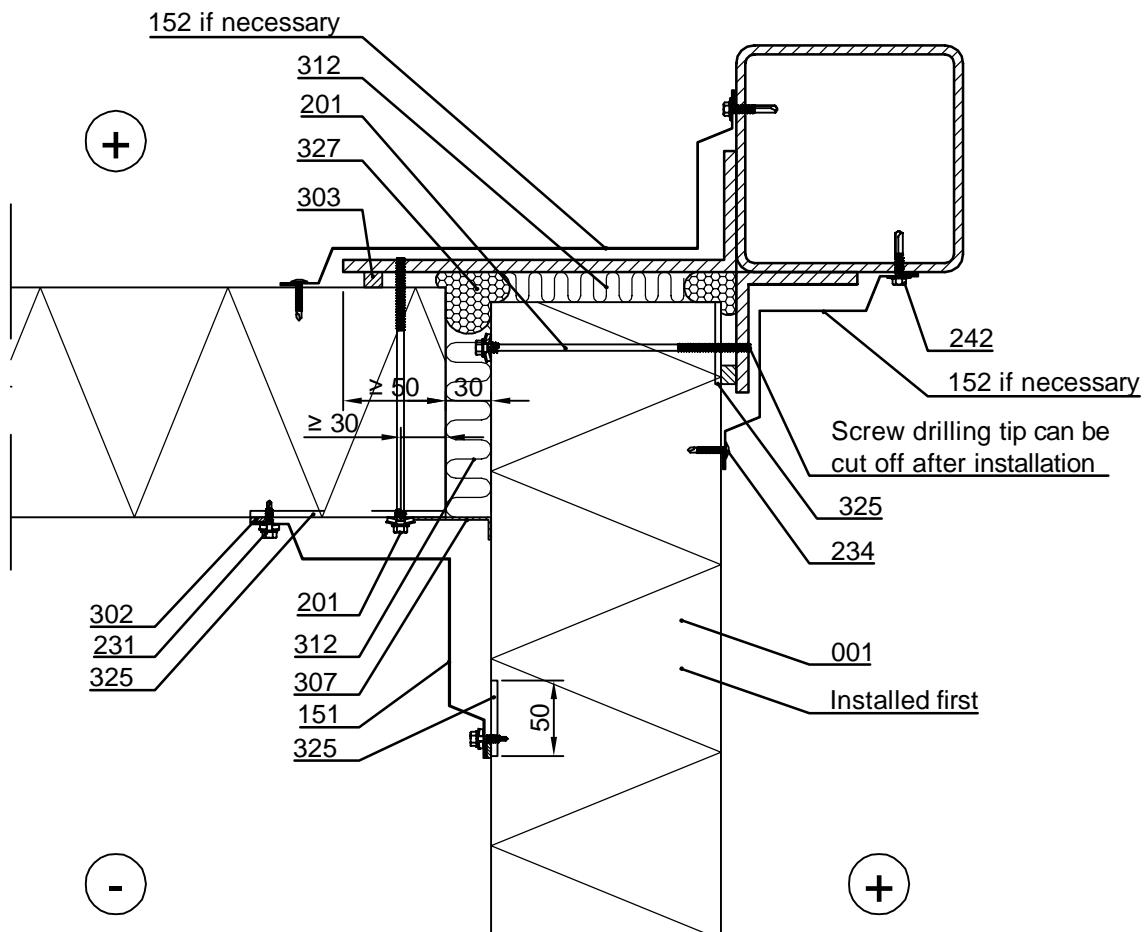


- 001. Sandwich panel SPA ENERGY
- 002. Sandwich panel SPA ENERGY corner panel, (SPA150 - 200 external dimension 300 - 2400 mm, SPA230 external dimension 350 - 2400 mm)
- 140. /EA1JVB4/ Vertical bottom flashing Invisible
- 144. /EA1JVI/ Vertical joint flashing Invisible
- 212. Self-drilling element screw, without washer
- 215. /EA2W40-910S/ Countersink washer
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 306. Ruukki Wind Joint Tape 150 mm
- 312. /EAWS____/ Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Internal corner, horizontal section
Rectangle hollow section column, option 1

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 151. /EA1IC3/ Internal corner flashing
- 152. Internal corner flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 234. Flat head flashing fastener
- 242. Fastener screw, without washer
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS / Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

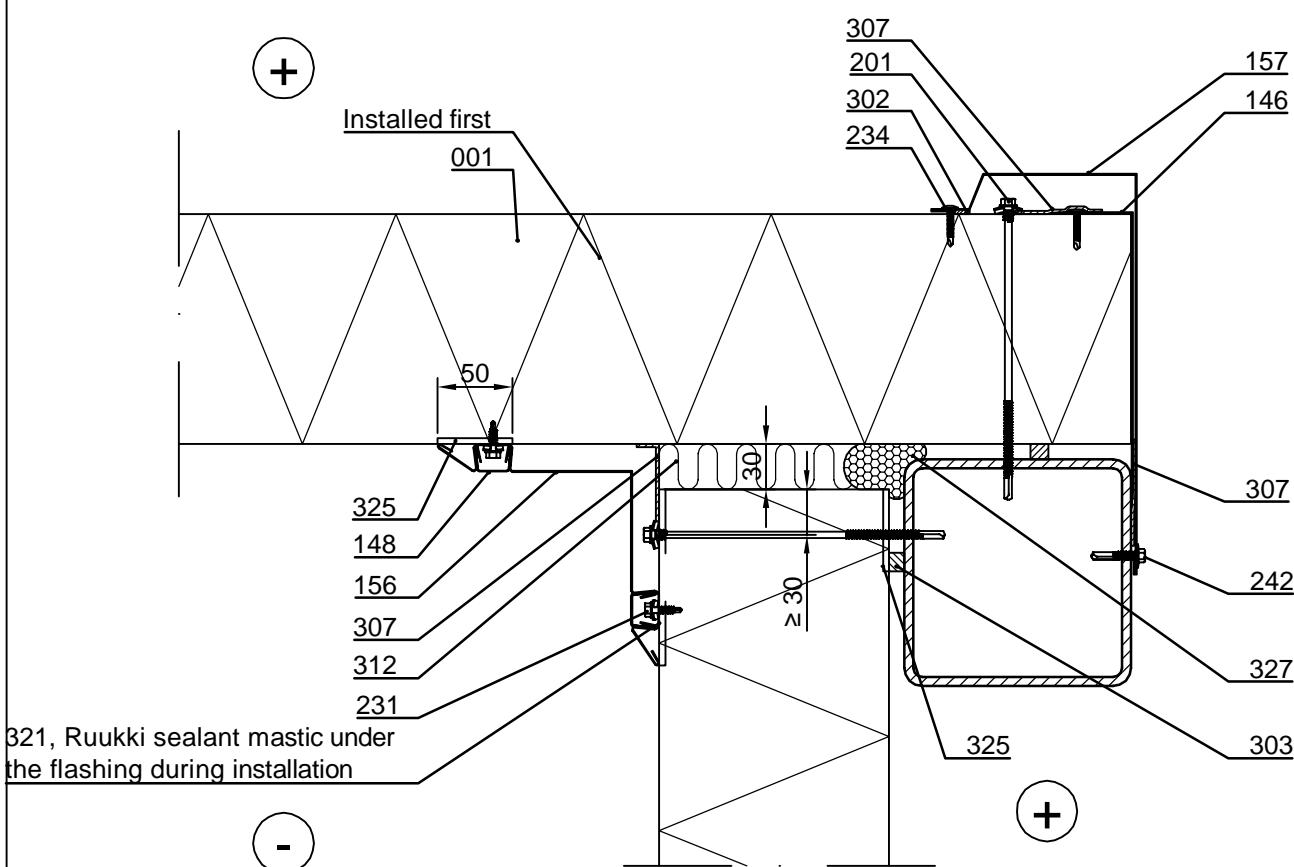
Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
Internal corner, horizontal section
Rectangle hollow section column, option 2

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

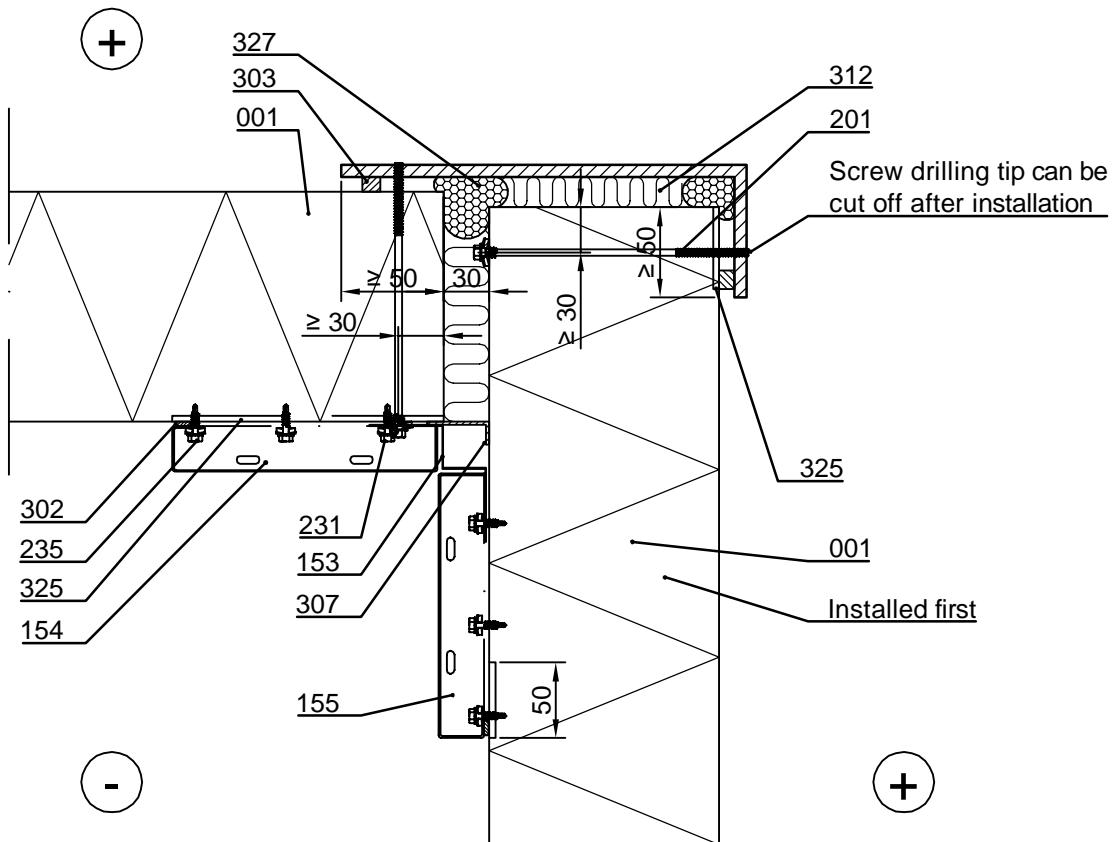


- 001. Sandwich panel SPA ENERGY
- 146. /EA1EC9-__ / External corner flashing
- 148. /EA1VCO/ Vertical cover flashing
- 156. /EA1IC9/ Internal corner flashing
- 157. Cover flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 234. Flat head flashing fastener
- 242. Fastener screw, without washer
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS__ / Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female
groove from panel end to sealing
- 327. Elastic polyurethane foam

Remember that under internal corner flashing EA1IC9 butt joints must be butt strap EA1C-JP2

Sandwich panel SPA ENERGY, horizontal inst.
Internal corner, horizontal section
L-steel, parapet, option 3

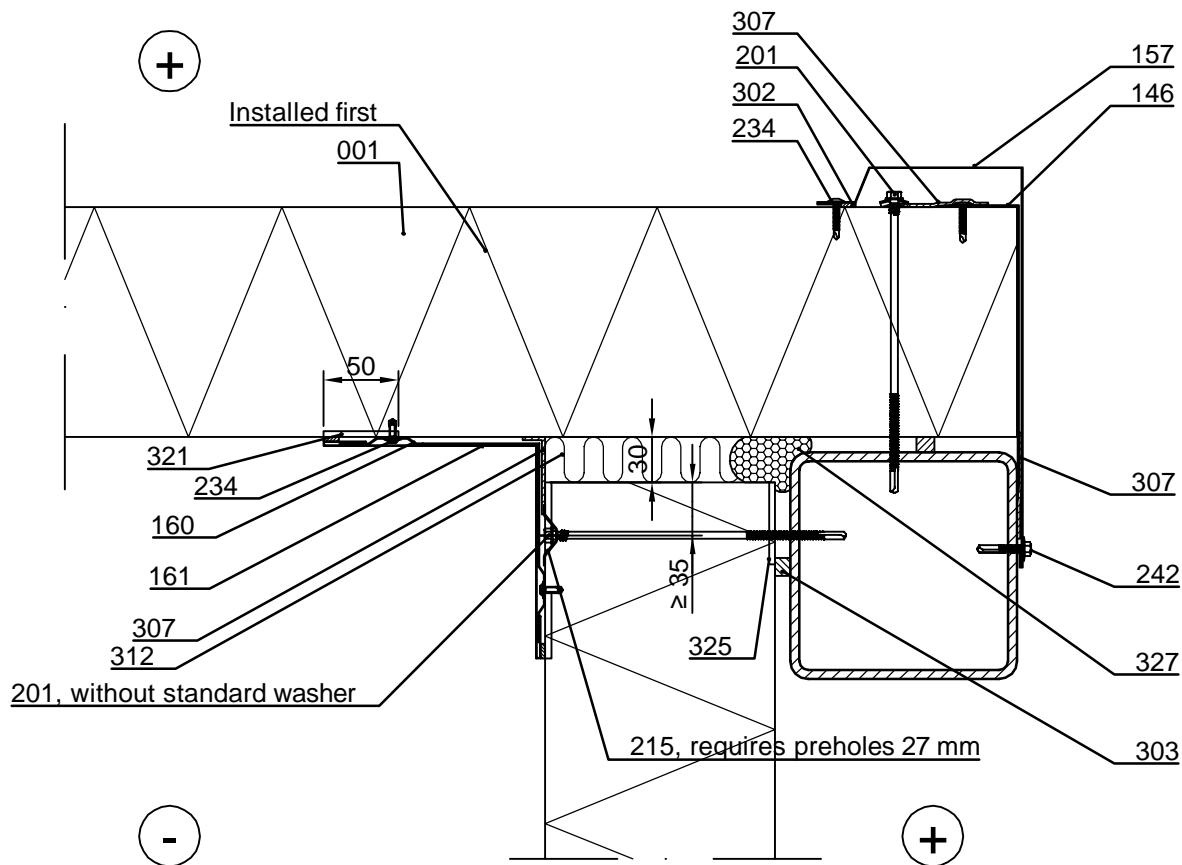
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 153. /EA1IC8/ Internal corner flashing
- 154. /EA1IC10/12 (left) / Internal corner panel
- 155. /EA1IC11/13 (right) / Internal corner panel
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 235. Joint panel fastener, stainless steel, washer with sealing
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS ____ / Mineral wool
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam
- Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Internal corner, horizontal section
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

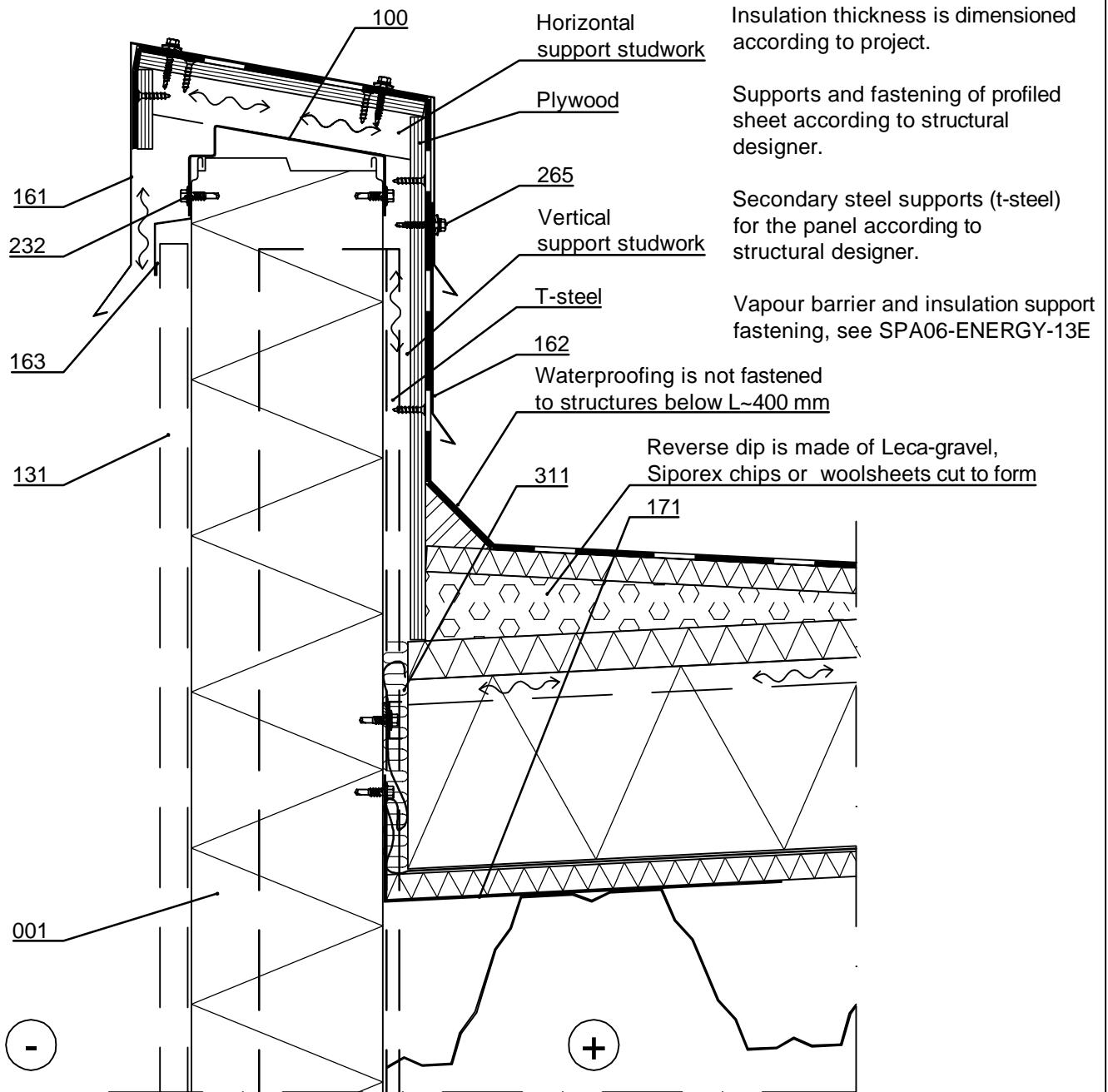


- 001. Sandwich panel SPA ENERGY
- 146. /EA1EC9-__/ External corner flashing
- 157. Cover flashing $t = 0.6$ mm, according to project
- 160. /EA1IXBI/ Internal corner bottom flashing
- 161. /EA1ICI/ Internal corner flashing
- 201. Self-drilling screw, washer with sealing
- 215. /EA2W40-910S/ Countersink washer
- 234. Flat head flashing fastener
- 242. Screw, without washer
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 307. Ruukki Wind Joint Tape 75 mm
- 312. /EAWS__/ Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- 327. Elastic polyurethane foam

Ruukki's delivery

**Sandwich panel SPA ENERGY, horizontal inst.
Parapet, side eaves
Bitumen roofing felt, vertical section**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 100. /EA1EP / Purlin
- 131. /EA1JV1/ Vertical joint flashing
- 161. Eave flashing, $t = 0.6$ mm, according to project
- 162. Cover flashing, $t = 0.6$ mm, according to project
- 163. Storm flashing, $t = 0.6$ mm, according to project
- Ruukki's delivery

- 171. Insulation support flashing, $t = 0.6$ mm, according to project
- 232. Flashing fastener, without washer
- 265. Fastener screw to wood, washer with sealing
- 311. Mineral wool

Sandwich panel SPA ENERGY, horizontal inst.
Parapet, end eaves
Bitumen roofing felt, vertical section

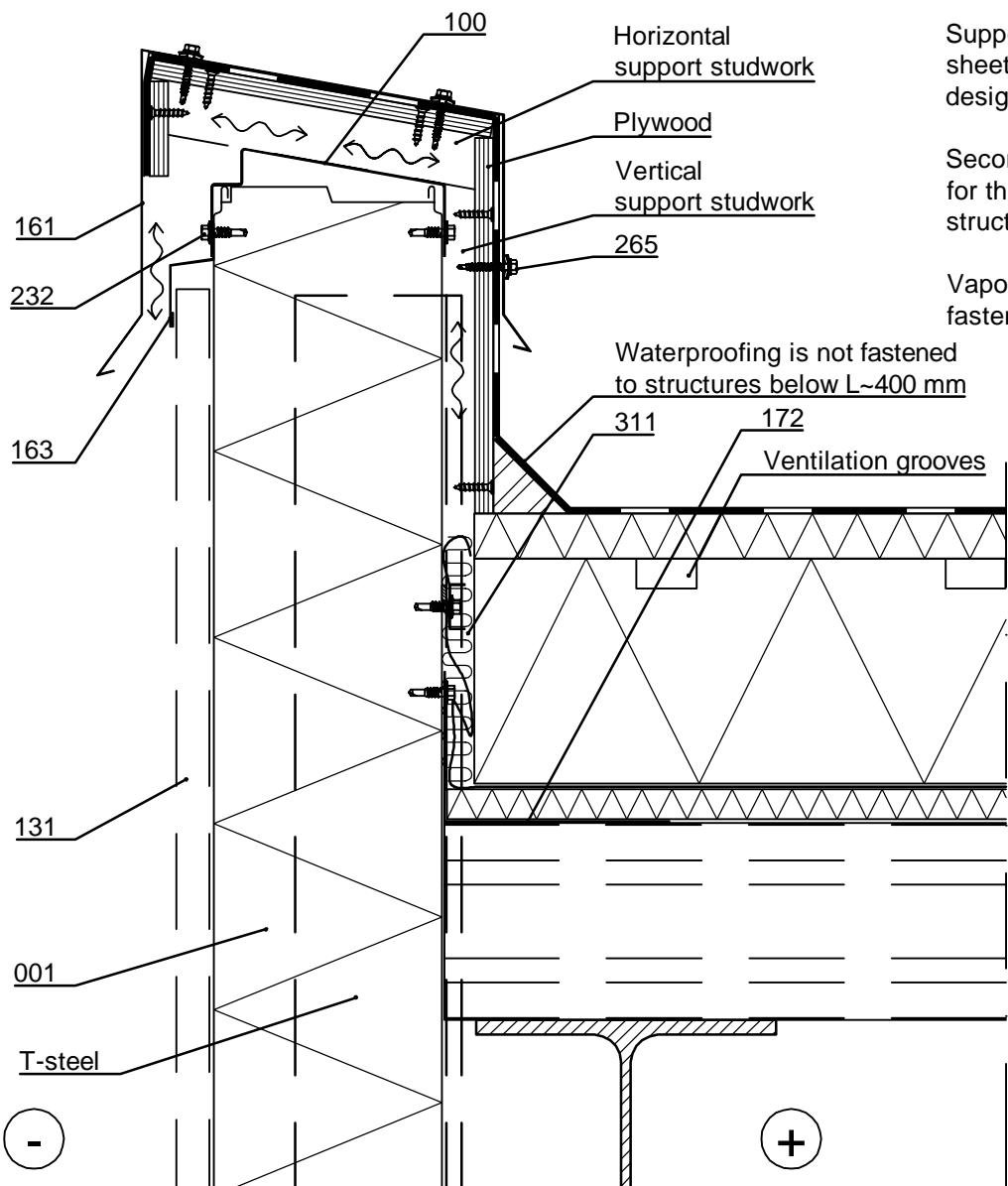
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

Secondary steel supports (t-steel) for the panel according to structural designer.

Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E



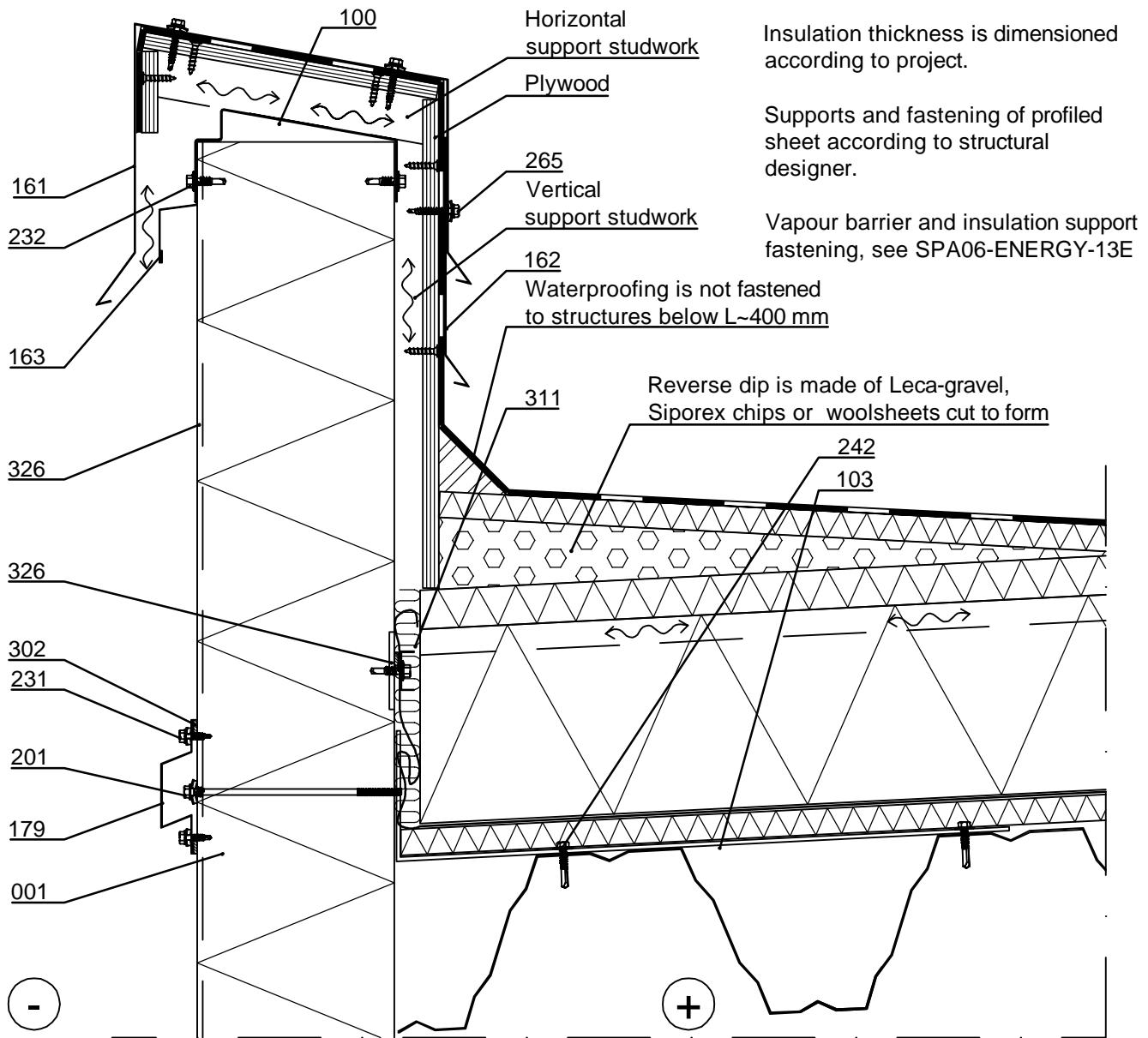
- 001. Sandwich panel SPA ENERGY
- 100. /EA1EP__/ Purlin
- 131. /EA1JV1/ Vertical joint flashing
- 161. Eave flashing, t = 0.6 mm, according to project
- 163. Storm flashing, t = 0.6 mm, according to project

- Ruukki's delivery

- 172. Insulation support flashing, t = 0.6 mm
- 232. Flashing fastener, without washer
- 265. Fastener screw to wood, washer with sealing
- 311. Mineral wool

Sandwich panel SPA ENERGY, vertical- and diagonal inst. Parapet, side eaves
Bitumen roofing felt, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



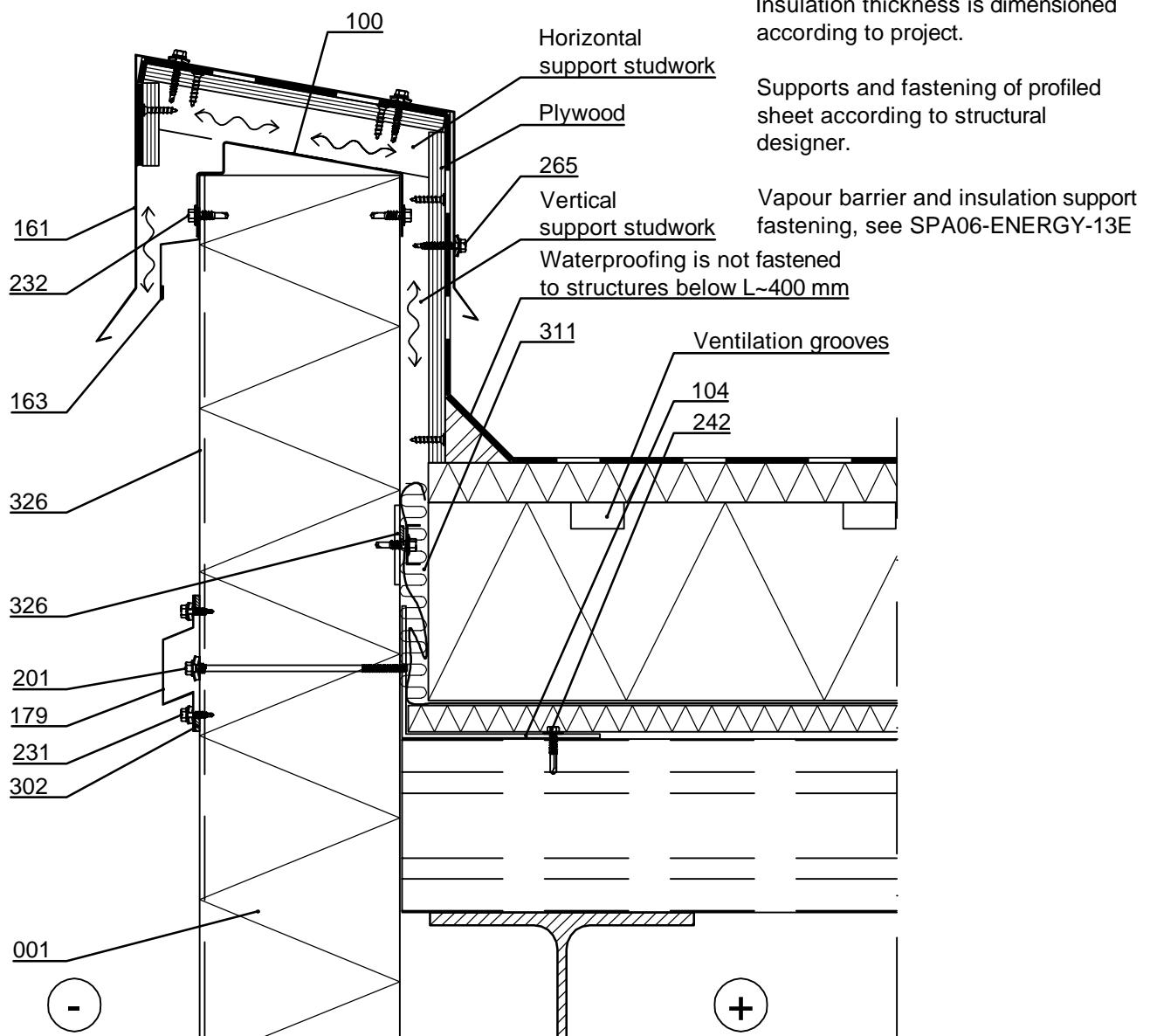
- 001. Sandwich panel SPA ENERGY
- 100. /EA1EP / Purlin
- 103. Flashing for fastening / insulation support flashing, $t=3$ mm, according to project
- 161. Eave flashing, $t = 0.6$ mm, according to project
- 162. Cover flashing, $t = 0.6$ mm, according to project
- 163. Storm flashing, $t = 0.6$ mm, according to project
- 179. Cover flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing

- Ruukki's delivery

- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 242. Fastener screw, without washer
- 265. Fastener screw to wood, washer with sealing
- 302. /EA3SS410/ Sealing strip
- 311. Mineral wool
- 325. Ruukki sealant mastic during installation to outer male groove full length of panel and inner female groove 60 mm in length of panel

Sandwich panel SPA ENERGY, vertical- and diagonal inst. Parapet, end eaves
Bitumen roofing felt, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



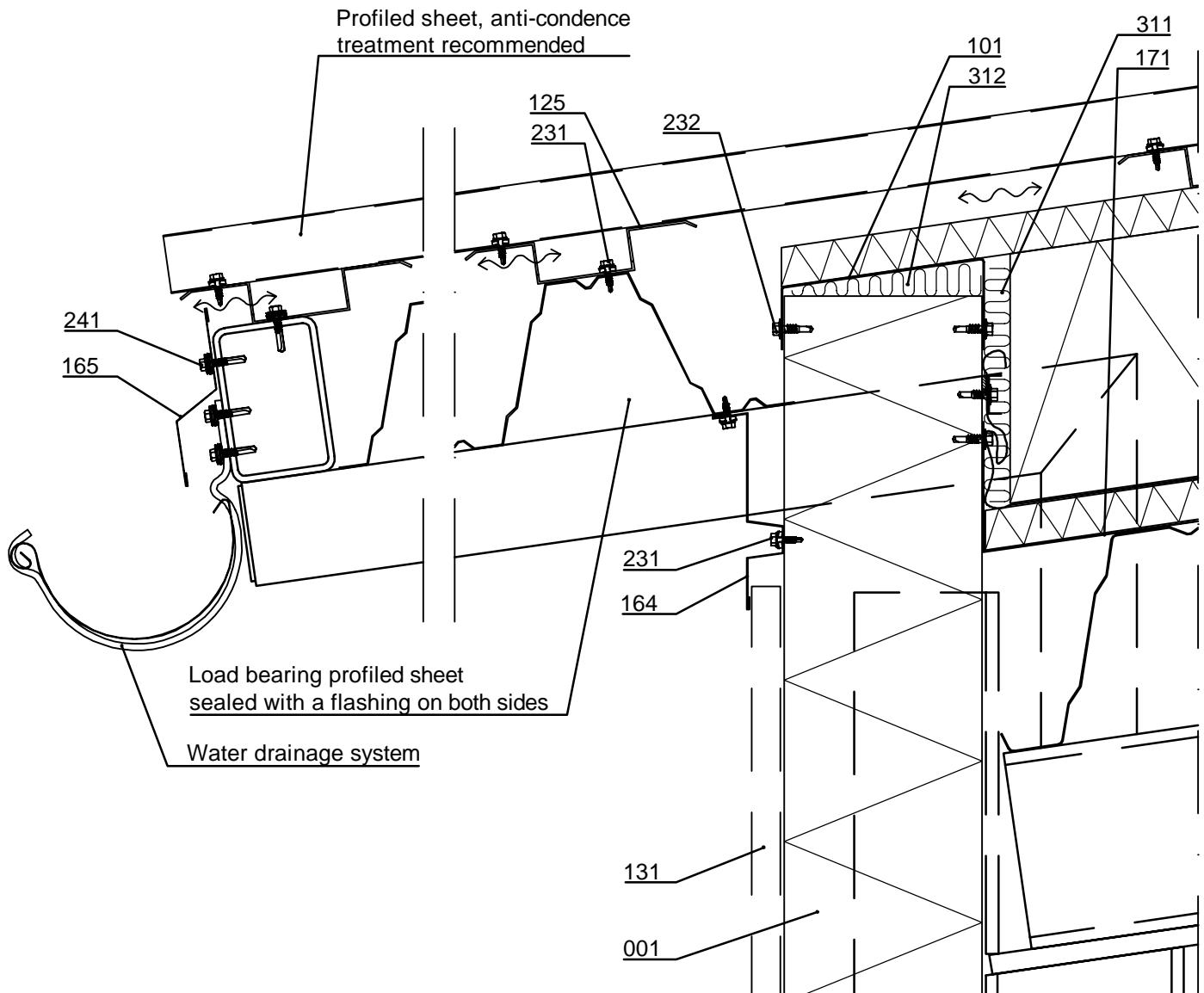
- 001. Sandwich panel SPA ENERGY
- 100. /EA1EP__/ Purlin
- 104. Flashing for fastening / insulation support flashing, t=3 mm, according to project
- 161. Eave flashing, t = 0.6 mm, according to project
- 163. Storm flashing, t = 0.6 mm, according to project
- 179. Cover flashing, t = 0.6 mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing

- Ruukki's delivery

- 232. Flashing fastener, without washer
- 242. Fastener screw, without washer
- 265. Fastener screw to wood, washer with sealing
- 302. /EA3SS410/ Sealing strip
- 311. Mineral wool
- 325. Ruukki sealant mastic during installation to outer male groove full length of panel and inner female groove 60 mm in length of panel

Sandwich panel SPA ENERGY, horizontal inst.
Cantilever eaves, side eaves
Profiled sheet roof deck, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 101. Eave purlin, according to project
- 125. /EA1HP1/ Ventilated hat purlin
- 131. /EA1JV1/ Vertical joint flashing
- 164. Storm flashing, $t = 0.6$ mm, according to project
- 165. Eave flashing, $t = 0.6$ mm, according to project
- 171. Insulation support flashing, $t = 0.6$ mm, according to project
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 241. Fastener screw, washer with sealing
- 311. Mineral wool
- 312. /EAWS/ Mineral wool

- Ruukki's delivery

Insulation thickness is dimensioned according to project.

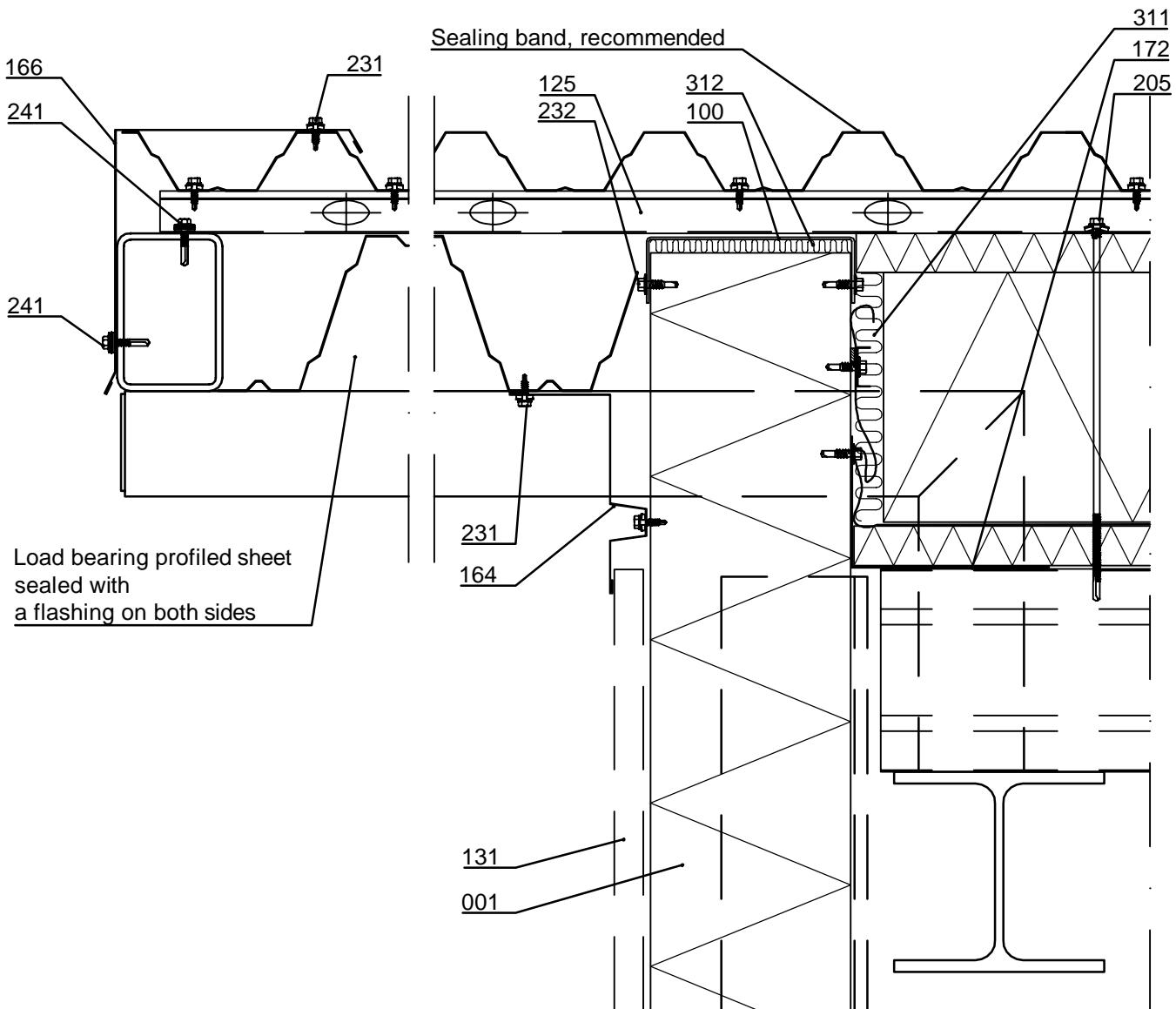
Supports and fastening of profiled sheet according to structural designer.

Panel is cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

Sandwich panel SPA ENERGY, horizontal inst.
Cantilever eaves, end eaves
Profiled sheet roof deck, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 100. /EA1EPF ____ / Purlin
- 125. /EA1HP1/ Ventilated hat purlin
- 131. /EA1JV1/ Vertical joint flashing
- 164. Storm flashing, $t = 0.6$ mm, according to project
- 166. Eave flashing, $t = 0.6$ mm, according to project
- 172. Insulation support flashing, $t = 0.6$ mm
- 205. Self-drilling element screw / fastener screw for roof
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 241. Fastener screw, washer with sealing
- 311. Mineral wool
- 312. /EAWS ____ / Mineral wool

Ruukki's delivery

Insulation thickness is dimensioned according to project.

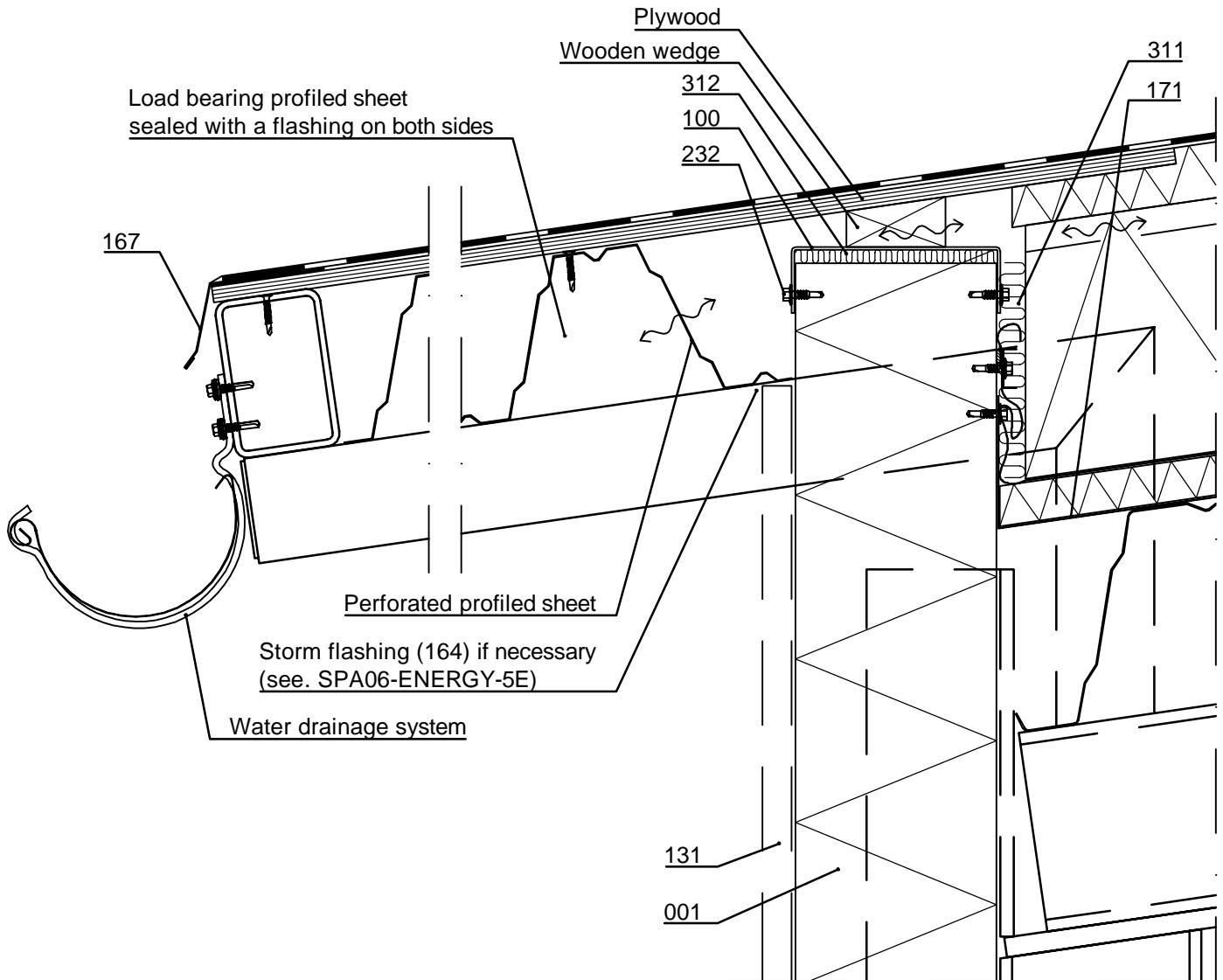
Supports and fastening of profiled sheet according to structural designer.

Panels are cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

Sandwich panel SPA ENERGY, horizontal inst.
Cantilever eaves, side eaves
Bitumen roofing felt, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-7E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

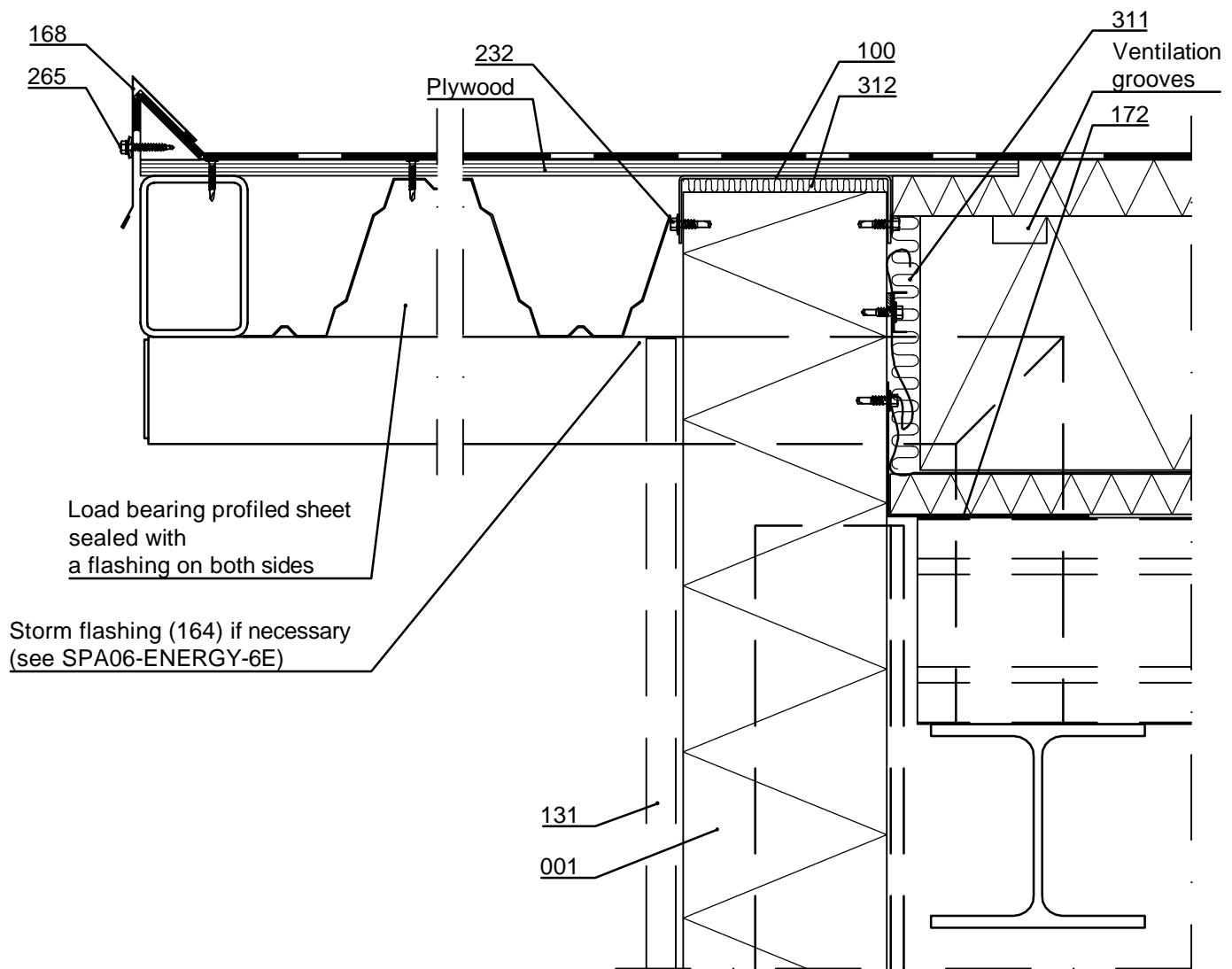
Panels are cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

- 001. Sandwich panel SPA ENERGY
- 100. /EA1EPF / Purlin
- 131. /EA1JV1/ Vertical joint flashing
- 167. Eave flashing, $t = 0.6$ mm, according to project
- 171. Insulation support flashing, $t = 0.6$ mm, according to project
- 232. Flashing fastener, without washer
- 311. Mineral wool
- 312. /EAWS / Mineral wool
- Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Cantilever eaves, end eaves
Bitumen roofing felt, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-8E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 100. /EA1EPF____/ Purlin
- 131. /EA1JV1/ Vertical joint flashing
- 168. Eave flashing, $t = 0.6$ mm, according to project
- 172. Insulation support flashing, $t = 0.6$ mm
- 232. Flashing fastener, without washer
- 265. Fastener screw to wood, washer with sealing
- 311. Mineral wool
- 312. /EAWS____/ Mineral wool
- Ruukki's delivery

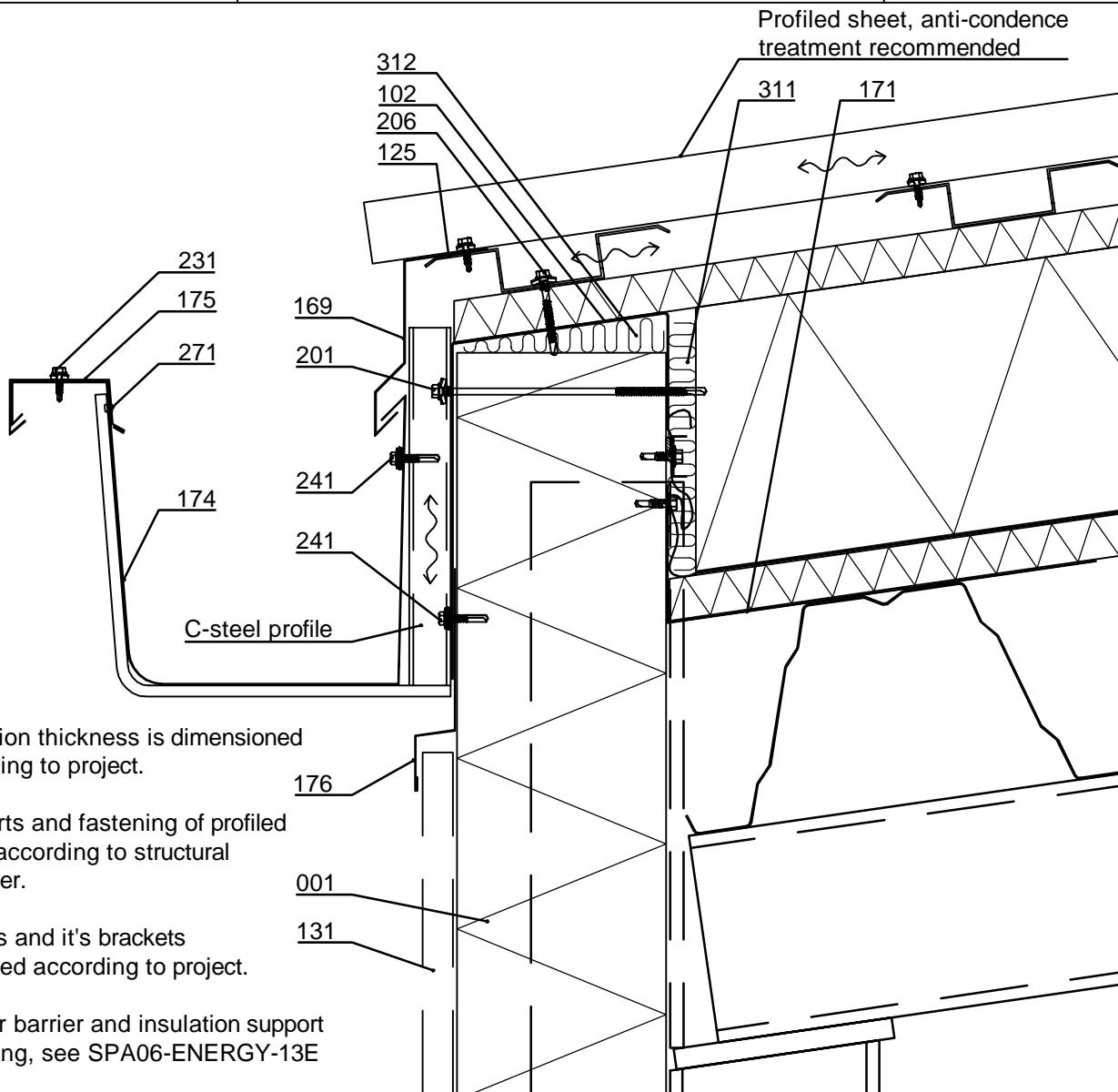
Supports and fastening of profiled sheet according to structural designer.

Panels are cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

Sandwich panel SPA ENERGY, horizontal inst.
Eaves, side eaves
Profiled sheet roof deck, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-9E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



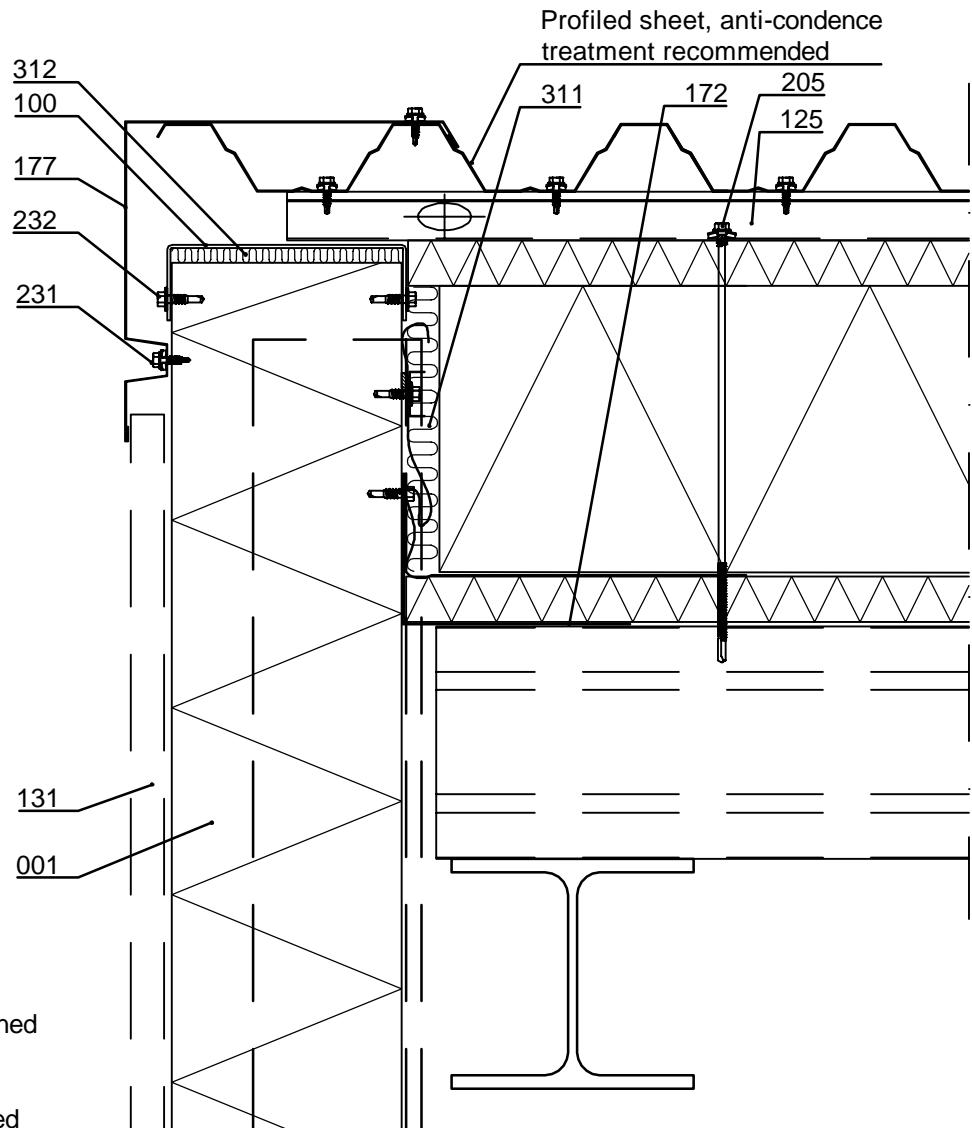
- 001. Sandwich panel SPA ENERGY
- 102. Eave purlin, t=2mm, according to project
- 125. /EA1HP1/ Ventilated hat purlin
- 131. /EA1JV1/ Vertical joint flashing
- 169. Eave flashing, t = 0.6 mm, according to project
- 171. Insulation support flashing, t = 0.6 mm, according to project
- 174. Gutter, t = 0.6 mm, according to project
- 175. Cover flashing, t = 0.6 mm, according to project

- Ruukki's delivery

- 176. Storm flashing, t = 0.6 mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 206. Self-drilling element screw / fastener screw for roof
- 231. Flashing fastener, washer with sealing
- 241. Fastener screw, washer with sealing
- 271. Rivet
- 311. Mineral wool
- 312. /EAWS__ / Mineral wool

Sandwich panel SPA ENERGY, horizontal inst.
Eaves, end eaves
Profiled sheet roof deck, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-10E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



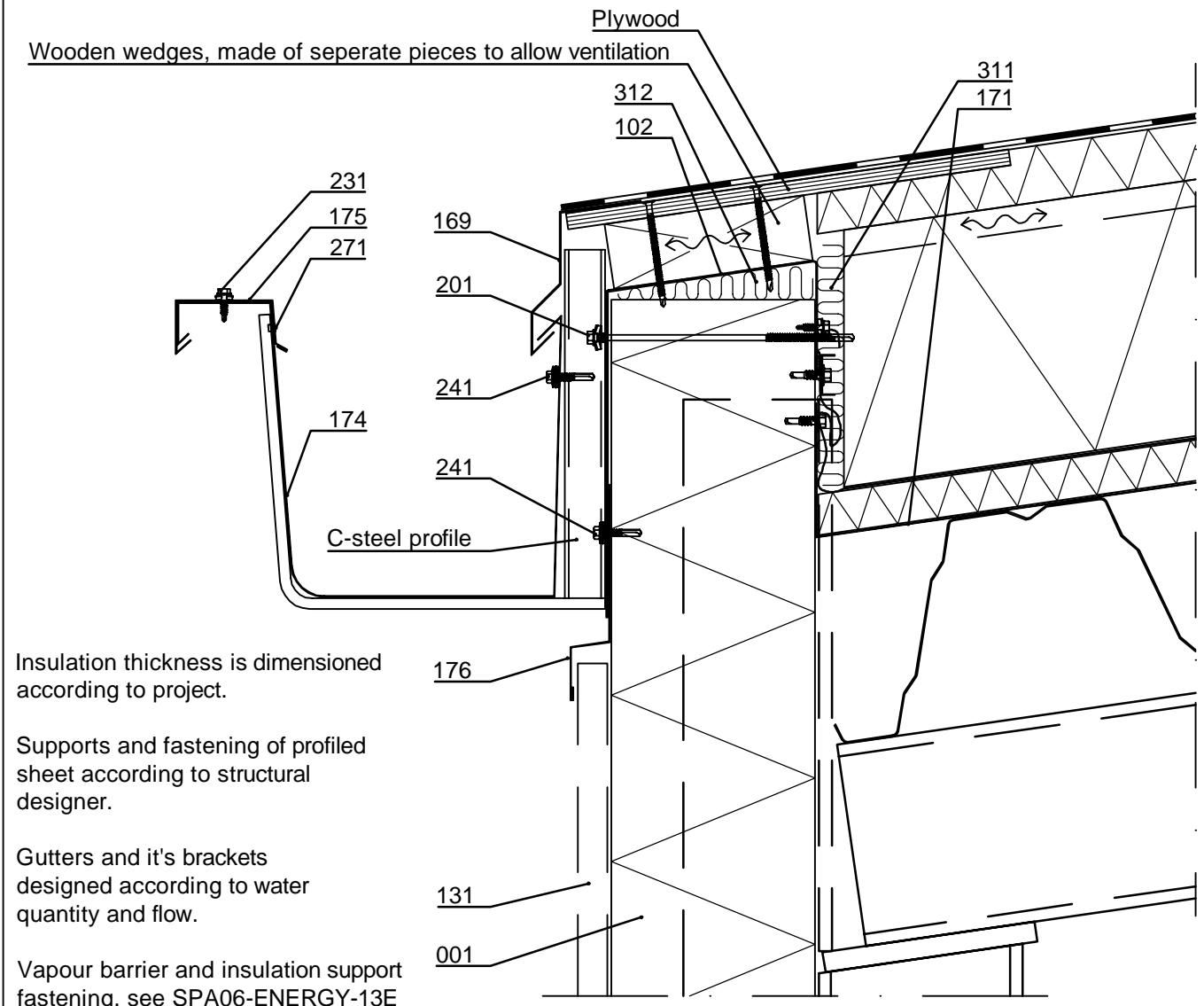
- 001. Sandwich panel SPA ENERGY
- 100. /EA1EPF____/ Purlin
- 125. /EA1HP1/ Ventilated hat purlin
- 131. /EA1JV1/ Vertical joint flashing
- 172. Insulation support flashing, t = 0.6 mm
- 177. Eave flashing, t = 0.6 mm, according to project

- Ruukki's delivery

- 205. Self-drilling element screw / fastener screw for roof
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 311. Mineral wool
- 312. /EAWS____/ Mineral wool

Sandwich panel SPA ENERGY, horizontal inst.
Eaves, side eaves
Bitumen roofing felt, vertical section

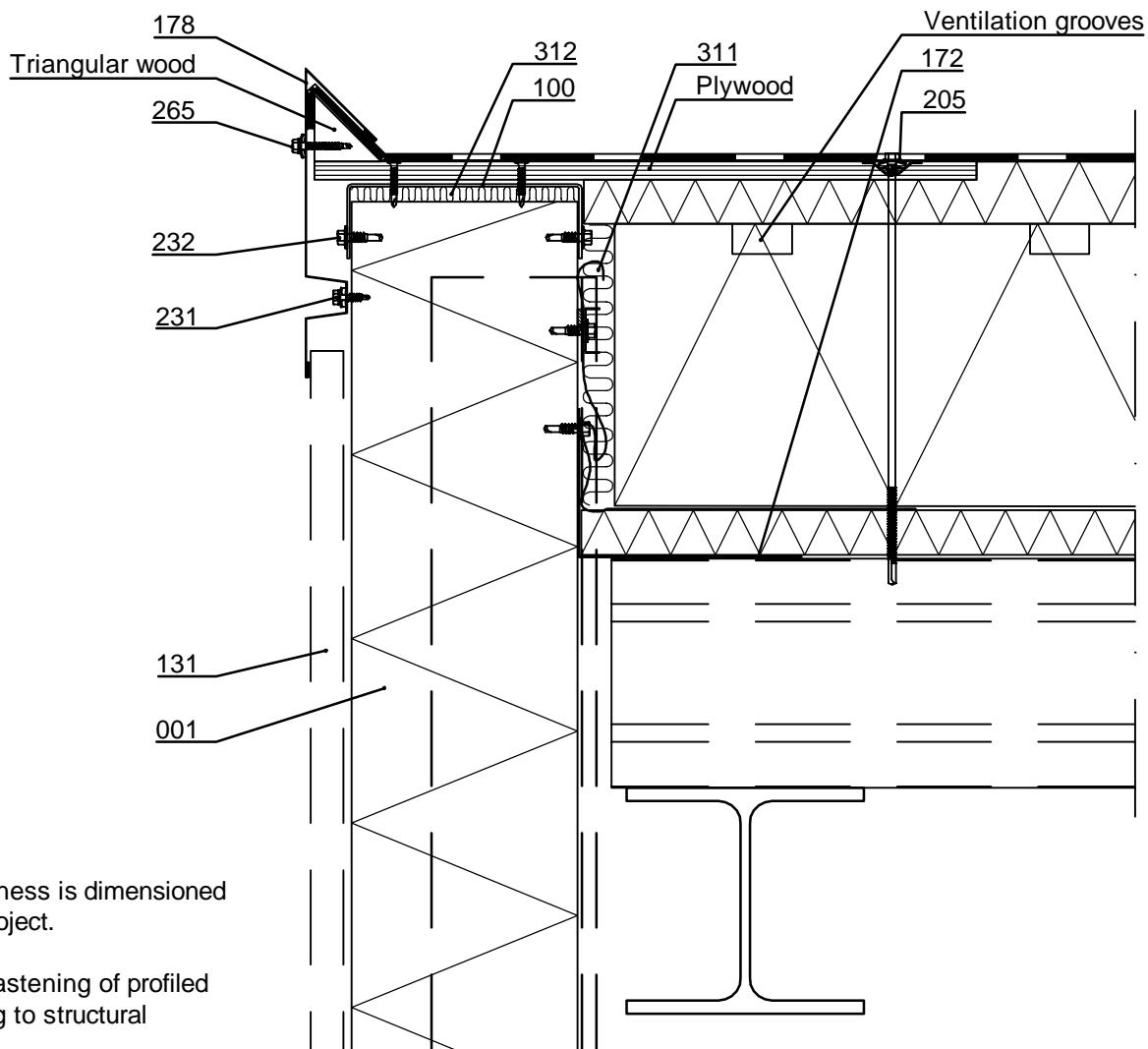
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-11E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 102. Eave purlin, according to project
- 131. /EA1JV1/ Vertical joint flashing
- 169. Eave flashing, $t = 0.6$ mm, according to project
- 171. Insulation support flashing, $t = 0.6$ mm, according to project
- 174. Gutter, $t = 0.6$ mm, according to project
- 175. Cover flashing, $t = 0.6$ mm, according to project
- Ruukki's delivery
- 176. Storm flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 241. Fastener screw, washer with sealing
- 271. Rivet
- 311. Mineral wool
- 312. /EAWS__/ Mineral wool

Sandwich panel SPA ENERGY, horizontal inst.
Eaves, end eaves
Bitumen roofing felt, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-12E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- 001. Sandwich panel SPA ENERGY
- 100. /EA1EPF___/ Purlin
- 131. /EA1JV1/ Vertical joint flashing
- 172. Insulation support flashing, $t = 0.6$ mm
- 178. Eave flashing, $t = 0.6$ mm, according to project
- 205. Self-drilling element screw / fastener screw for roof

- Ruukki's delivery

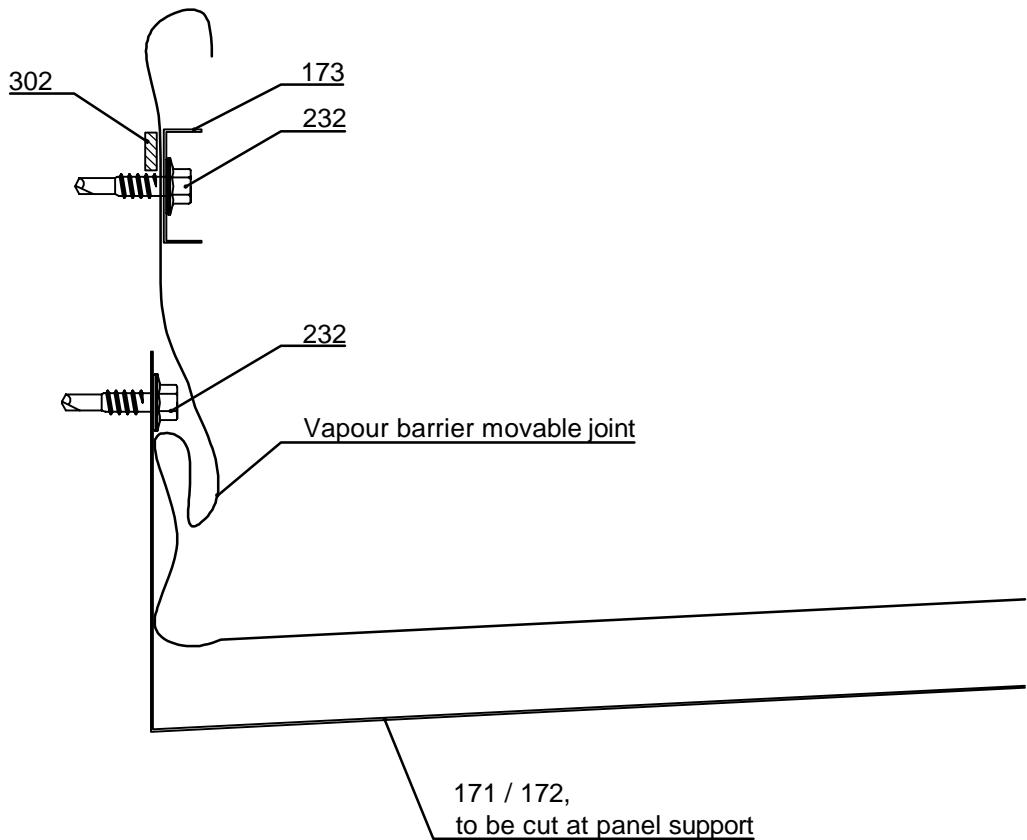
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 265. Fastener screw to wood, washer with sealing
- 311. Mineral wool
- 312. /EAWS___/ Mineral wool

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Contents of drawing

Sandwich panel SPA ENERGY, horizontal-, vertical- and diagonal installation. Vapour barrier and insulation support flashing fastening

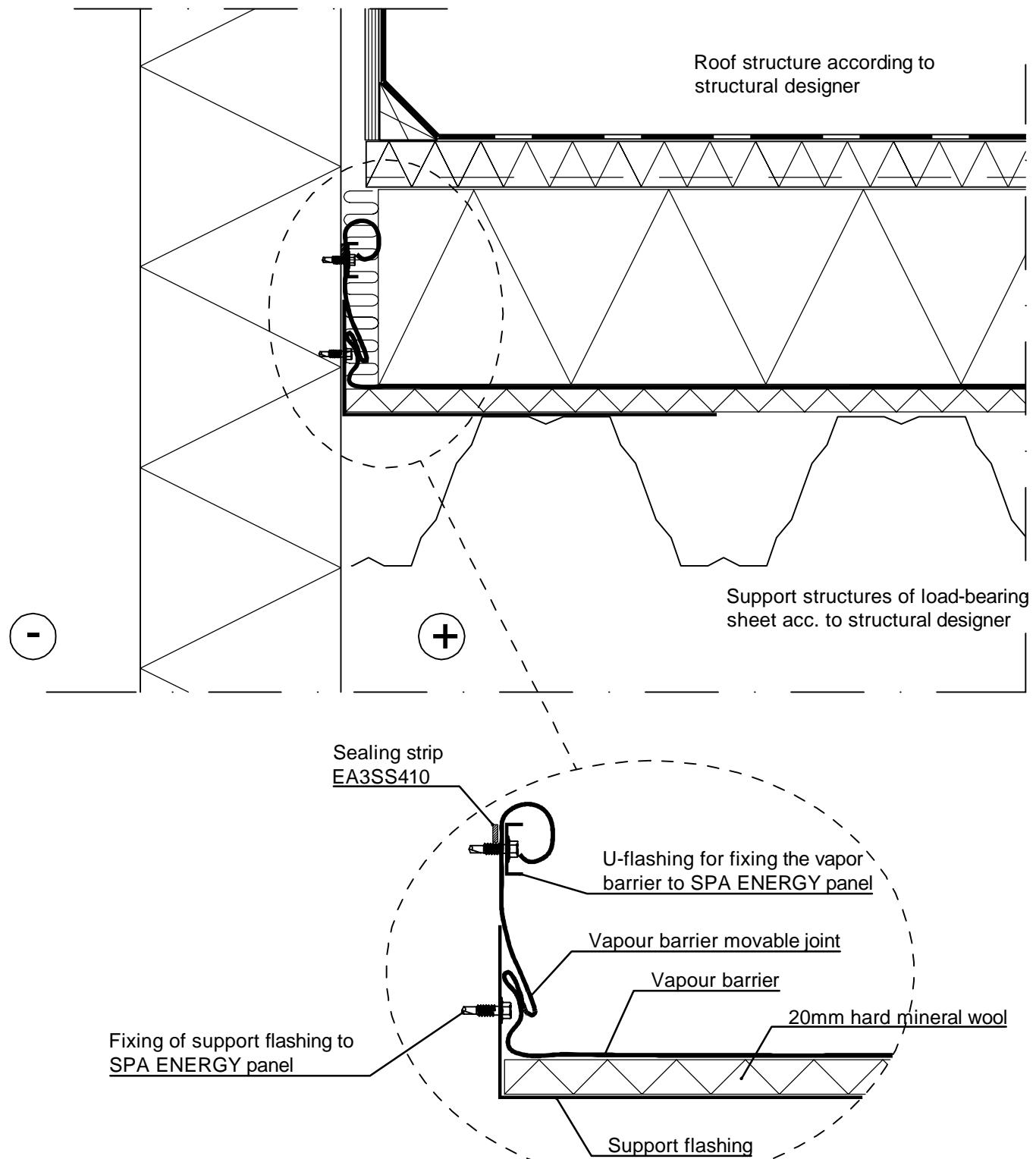
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-13E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- 171. Insulation support flashing, $t = 0.6$ mm, according to project
- 172. Insulation support flashing, $t = 0.6$ mm
- 173. U-flashing to vapour barrier fastening, $t = 0.6$ mm, according to project
- 232. Flashing fastener, without washer
- 302. /EA3SS410/ Sealing, between panel and vapour barrier
- Ruukki's delivery

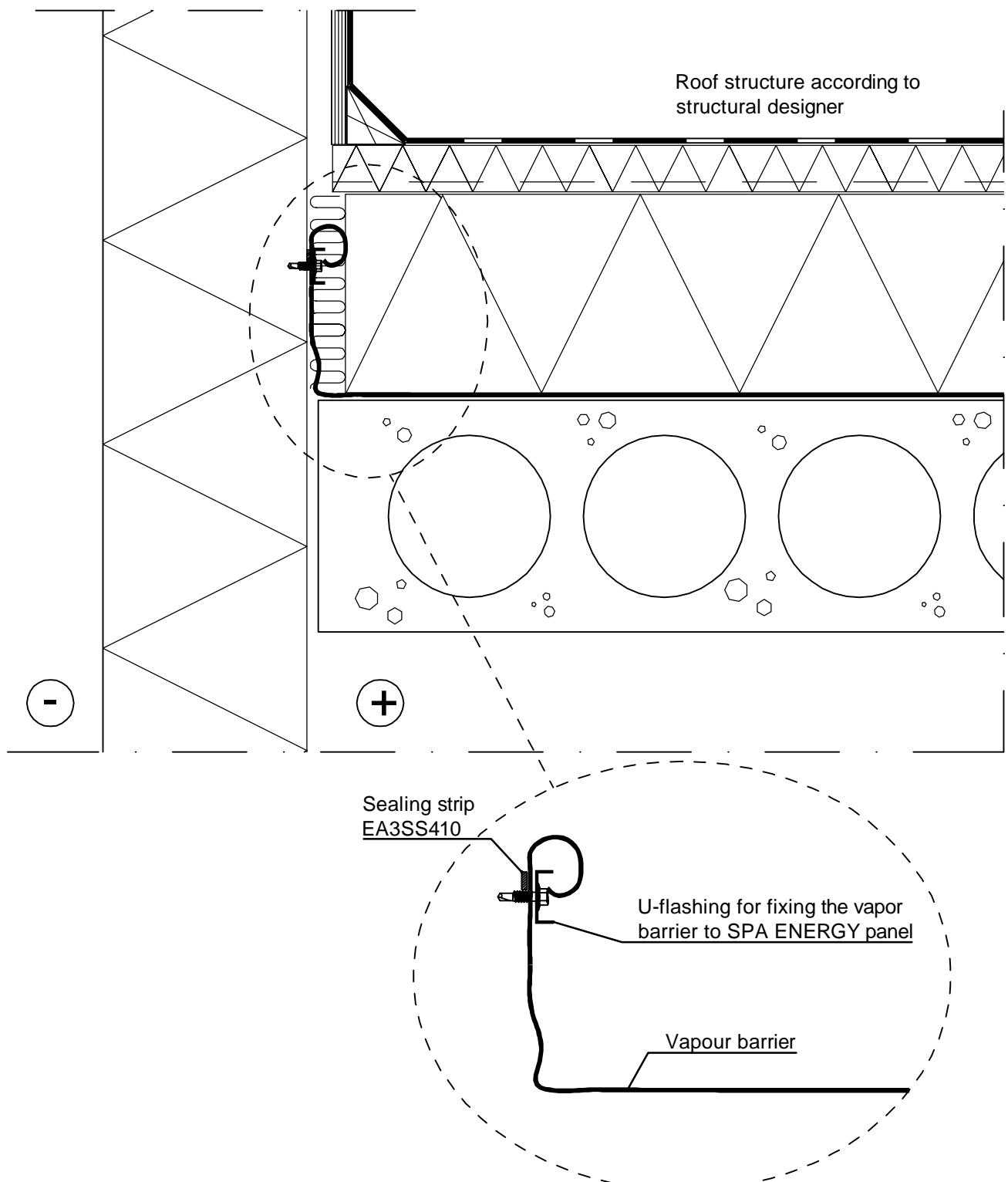
Sandwich panel SPA ENERGY
Additional air tightness details, Cantilever eaves
Plastic membrane, Load-bearing sheet

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-14E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



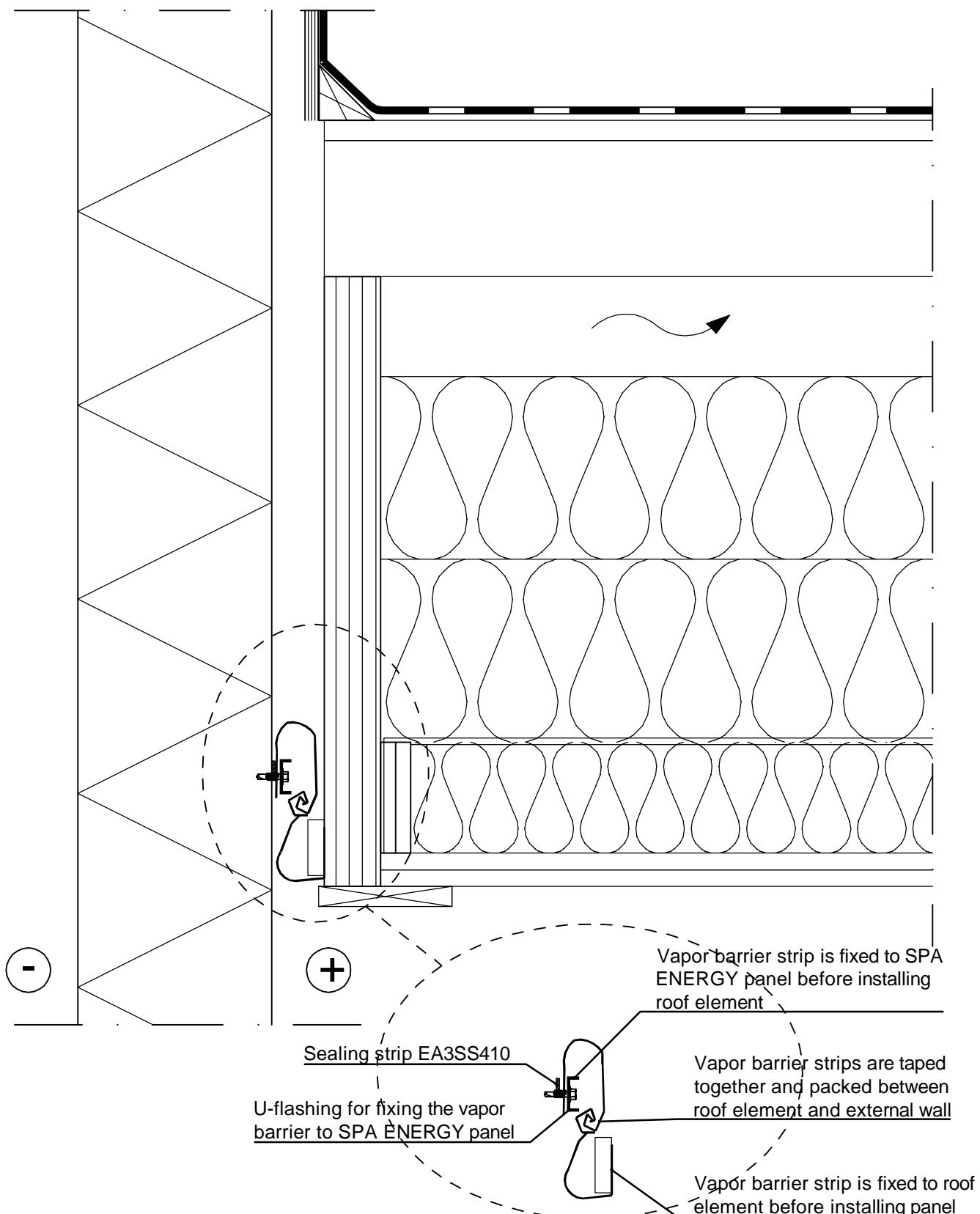
Sandwich panel SPA ENERGY
Additional air tightness details, Cantilever eaves
Plastic membrane, Hollow core slab

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-15E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



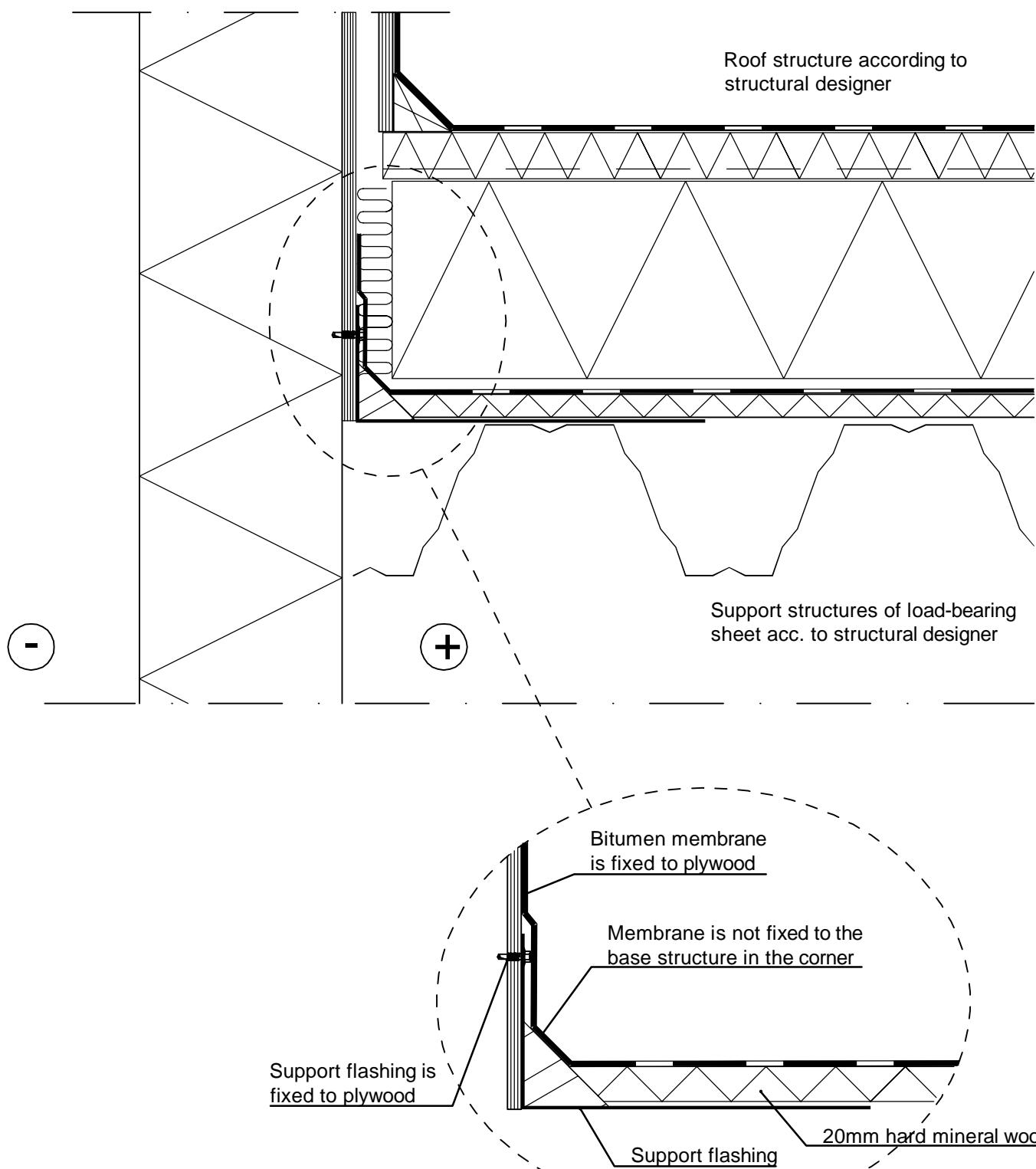
Sandwich panel SPA ENERGY
Additional air tightness details, Cantilever eaves
Plastic membrane, Wood element

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-16E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



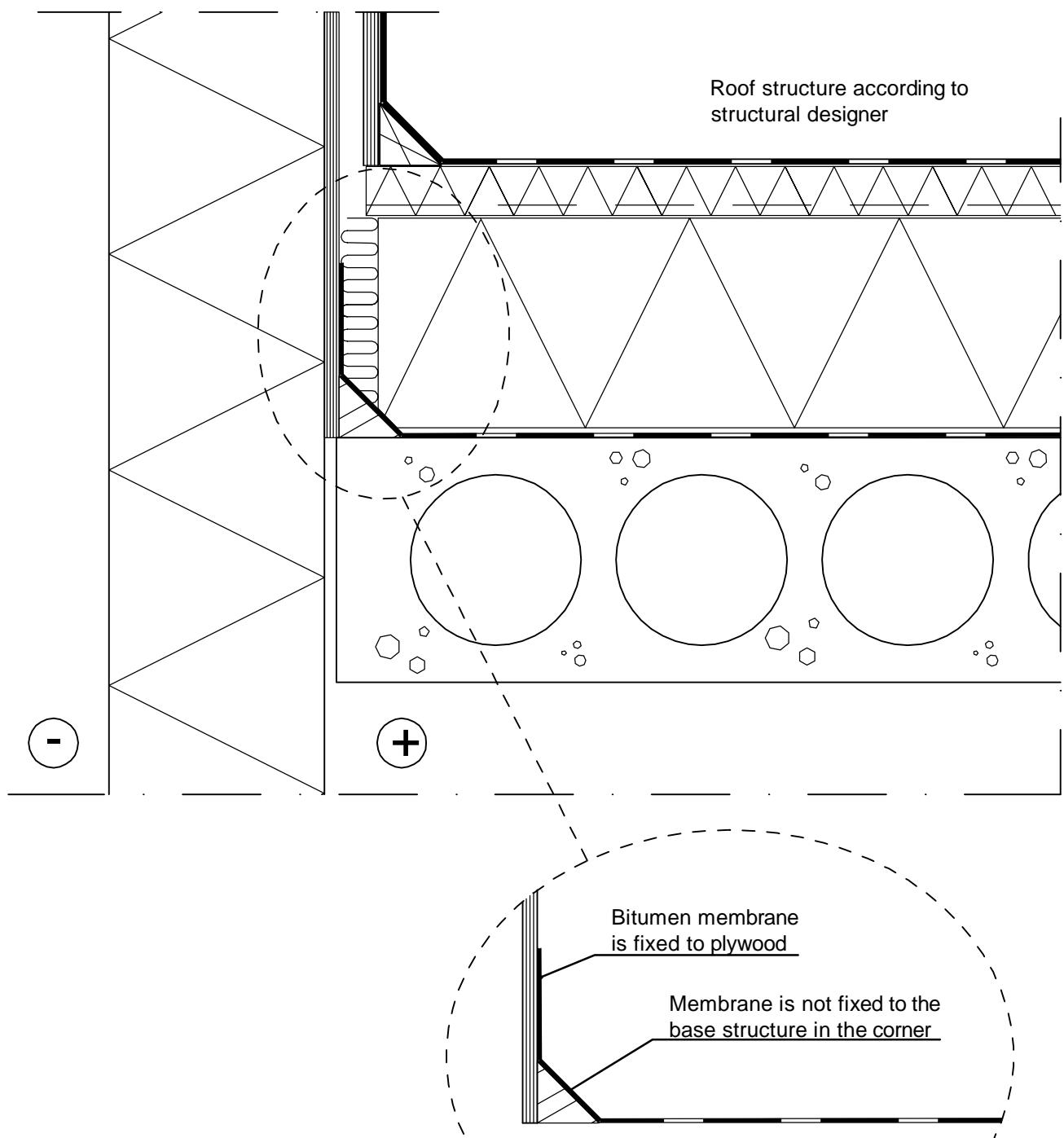
Sandwich panel SPA ENERGY
Additional air tightness details, Cantilever eaves
Bitumen membrane, Load-bearing sheet

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-17E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



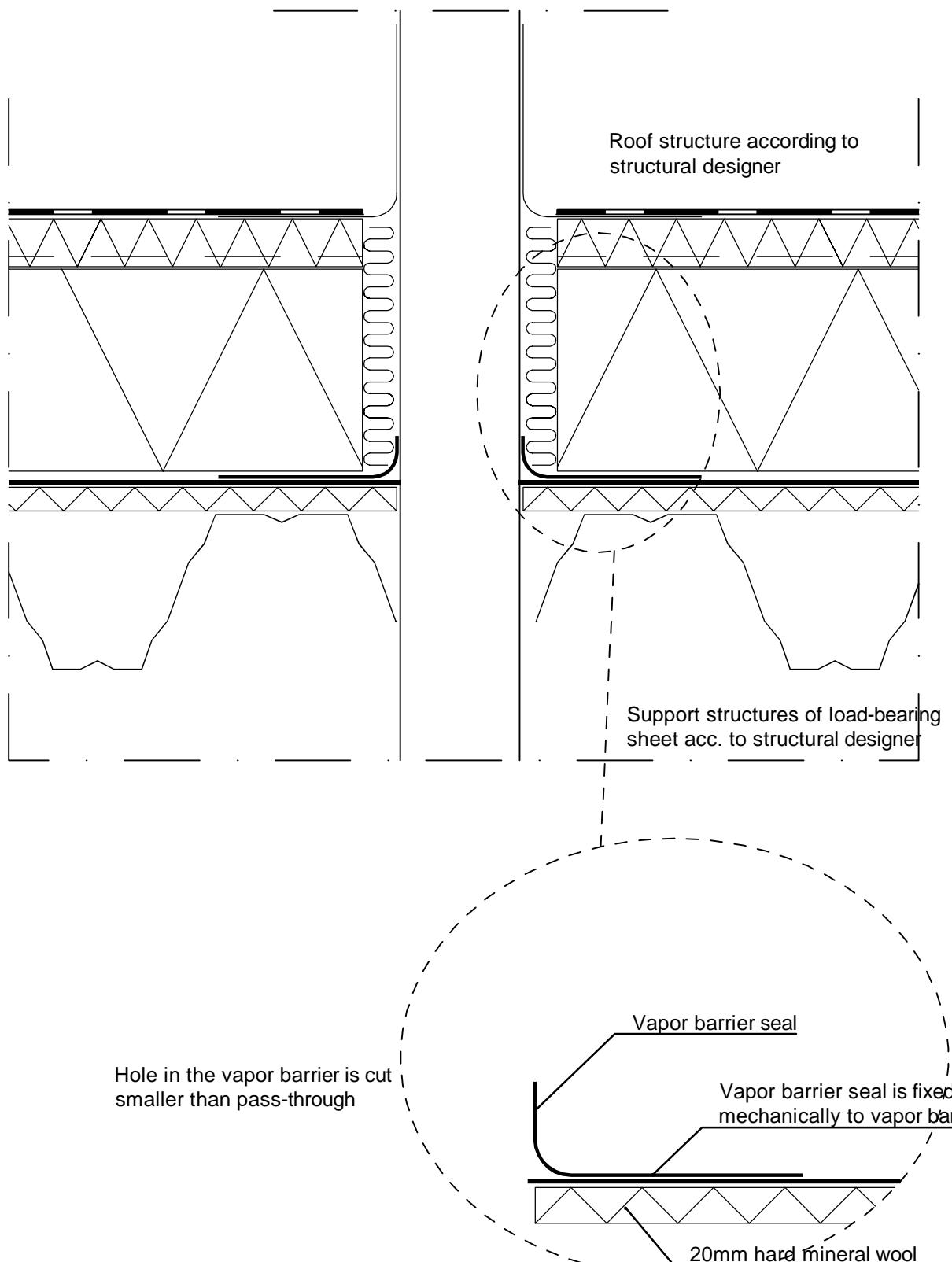
Sandwich panel SPA ENERGY
Additional air tightness details, Cantilever eaves
Bitumen membrane, Hollow core slab

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-18E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



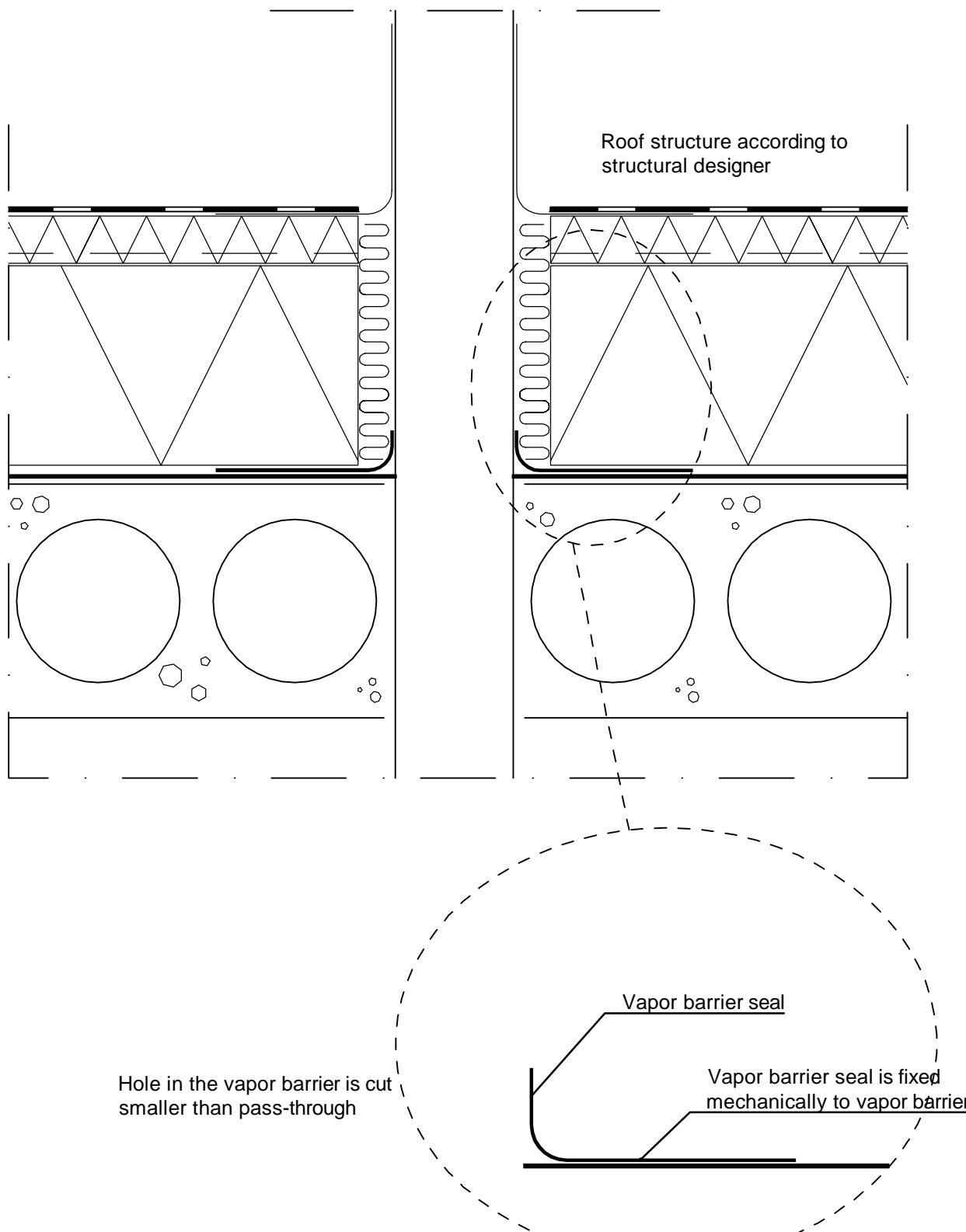
Sandwich panel SPA ENERGY, Additional air tightness details, Round pass-through Plastic membrane, Load-bearing sheet

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-19E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



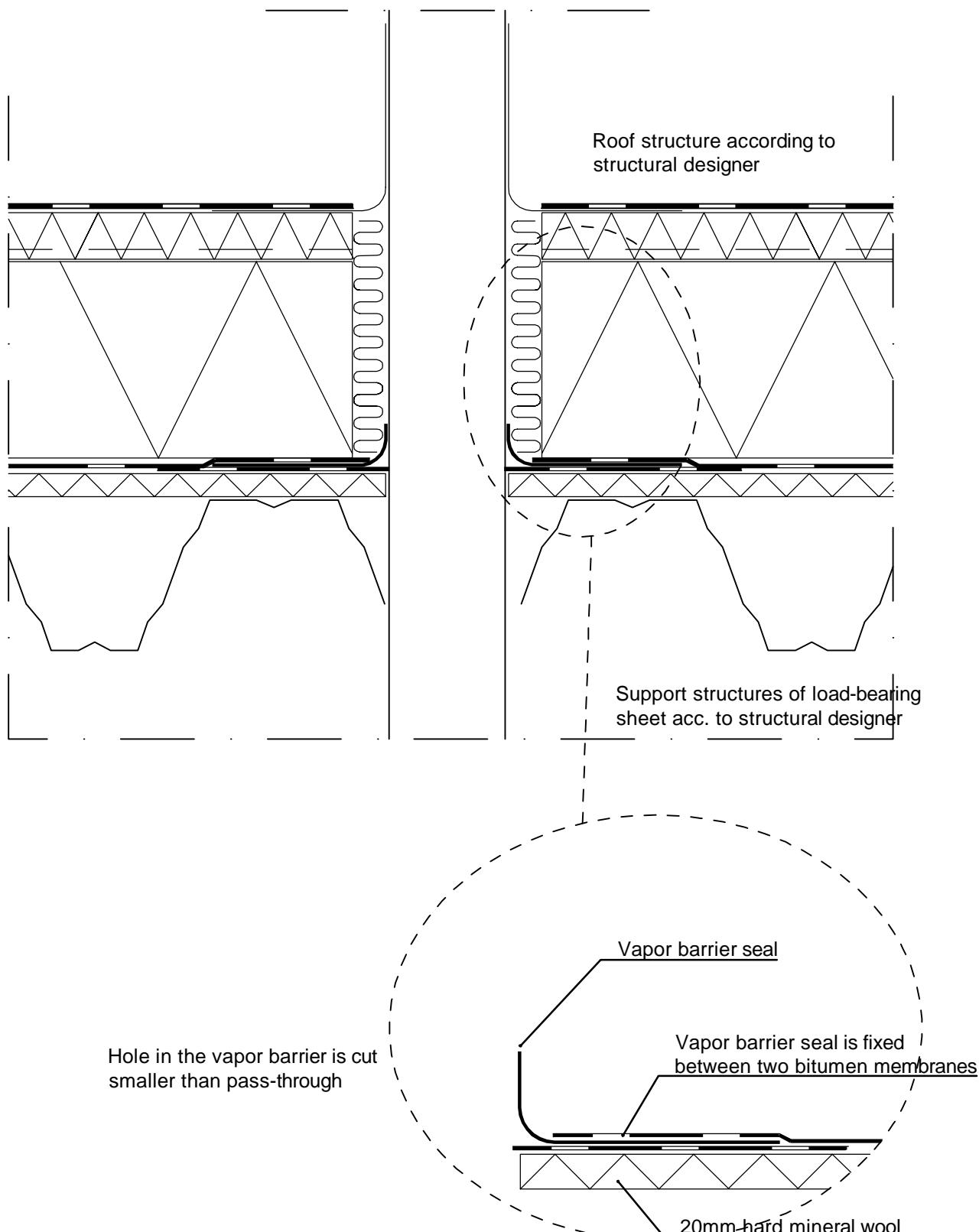
Sandwich panel SPA ENERGY, Additional air tightness details, Round pass-through Plastic membrane, Hollow core slab

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-20E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



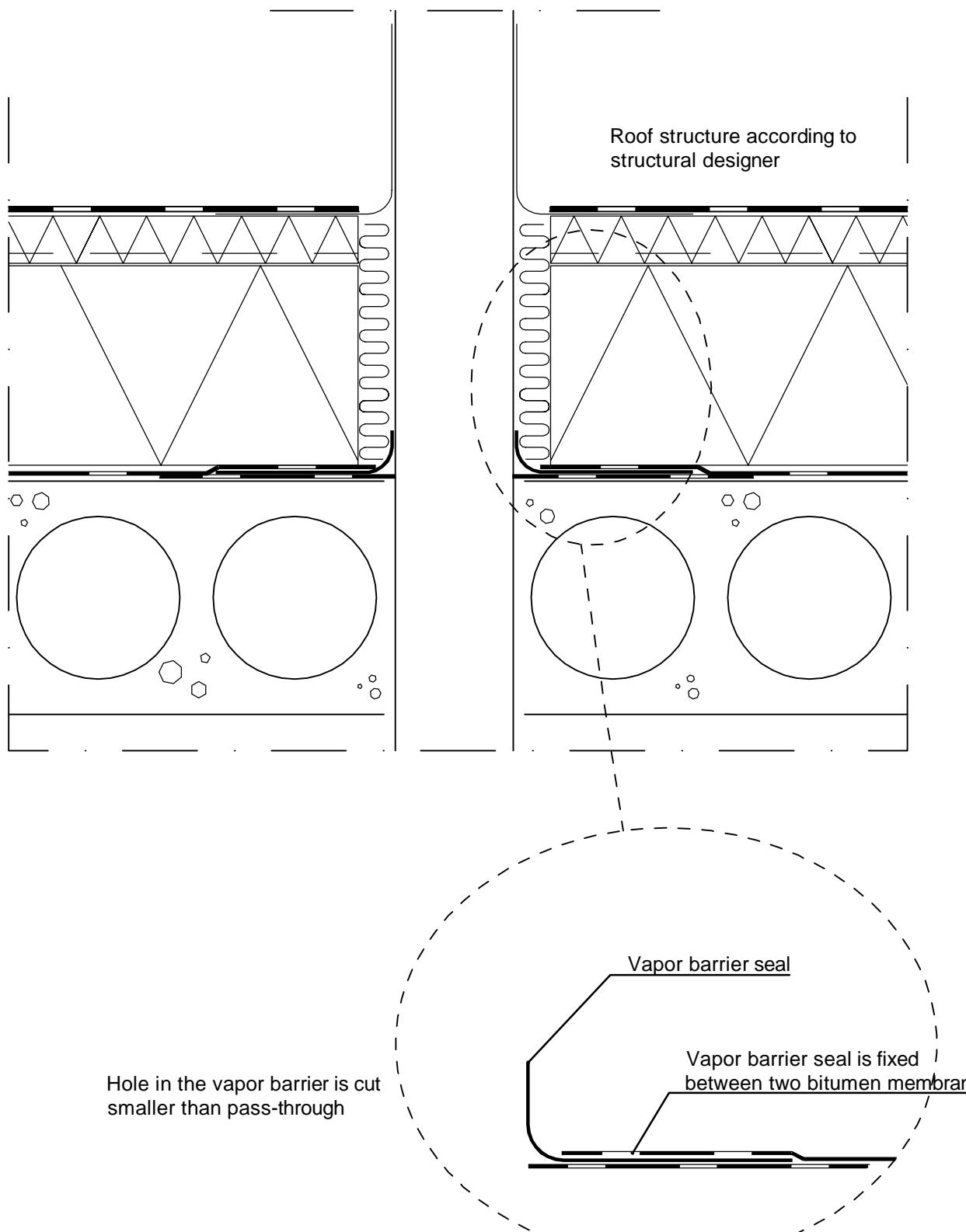
Sandwich panel SPA ENERGY, Additional air tightness details, Round pass-through Bitumen membrane, Load-bearing sheet

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-21E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



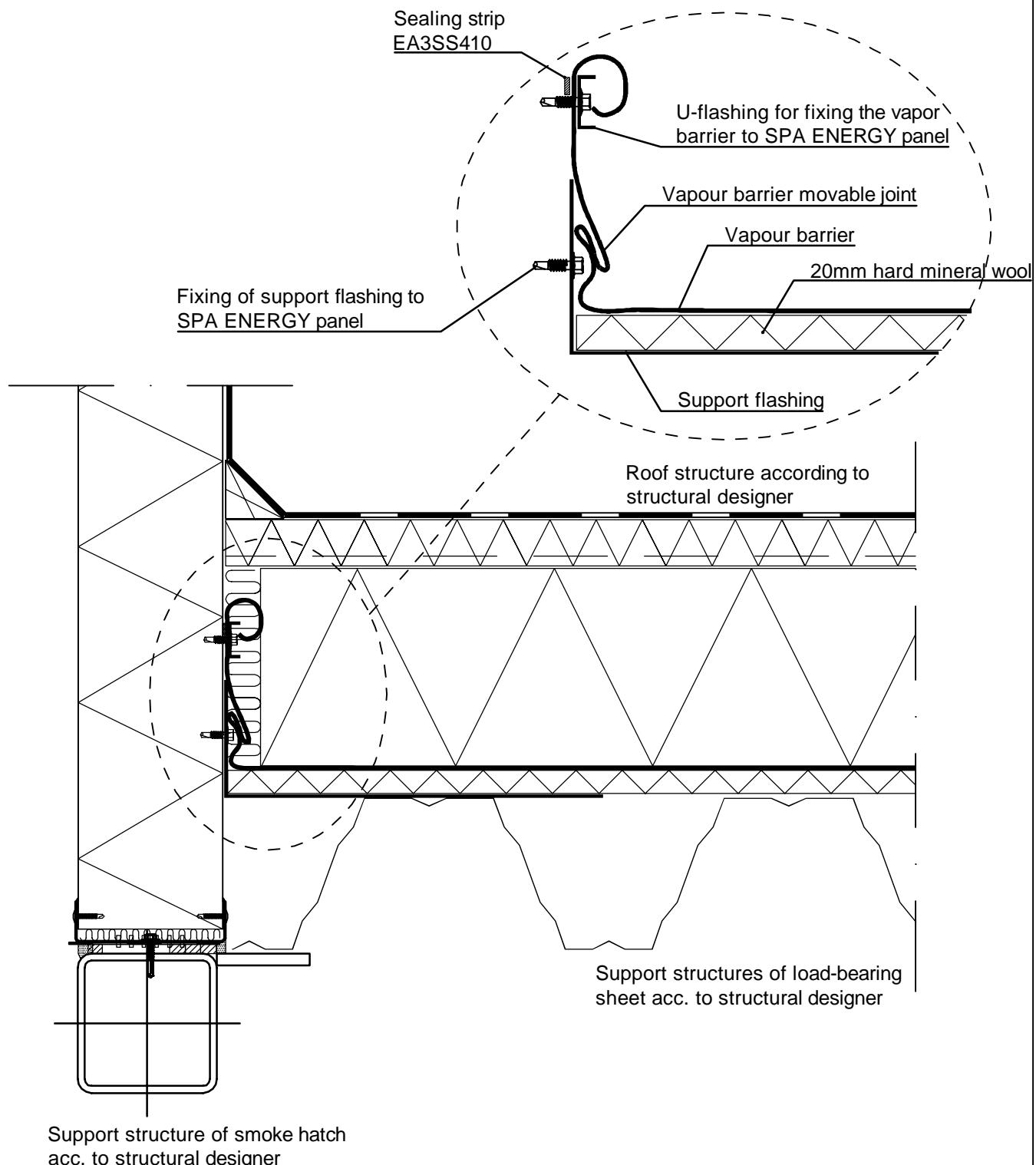
Sandwich panel SPA ENERGY, Additional air tightness details, Round pass-through Bitumen membrane, Hollow core slab

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-22E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Sandwich panel SPA ENERGY
Additional air tightness details, Smoke hatch
Plastic membrane, Load-bearing sheet

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-23E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

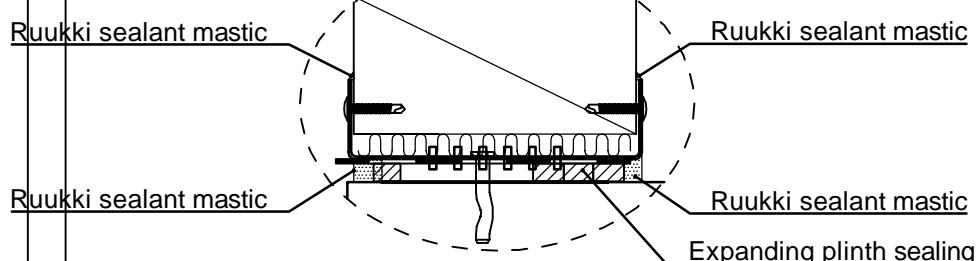
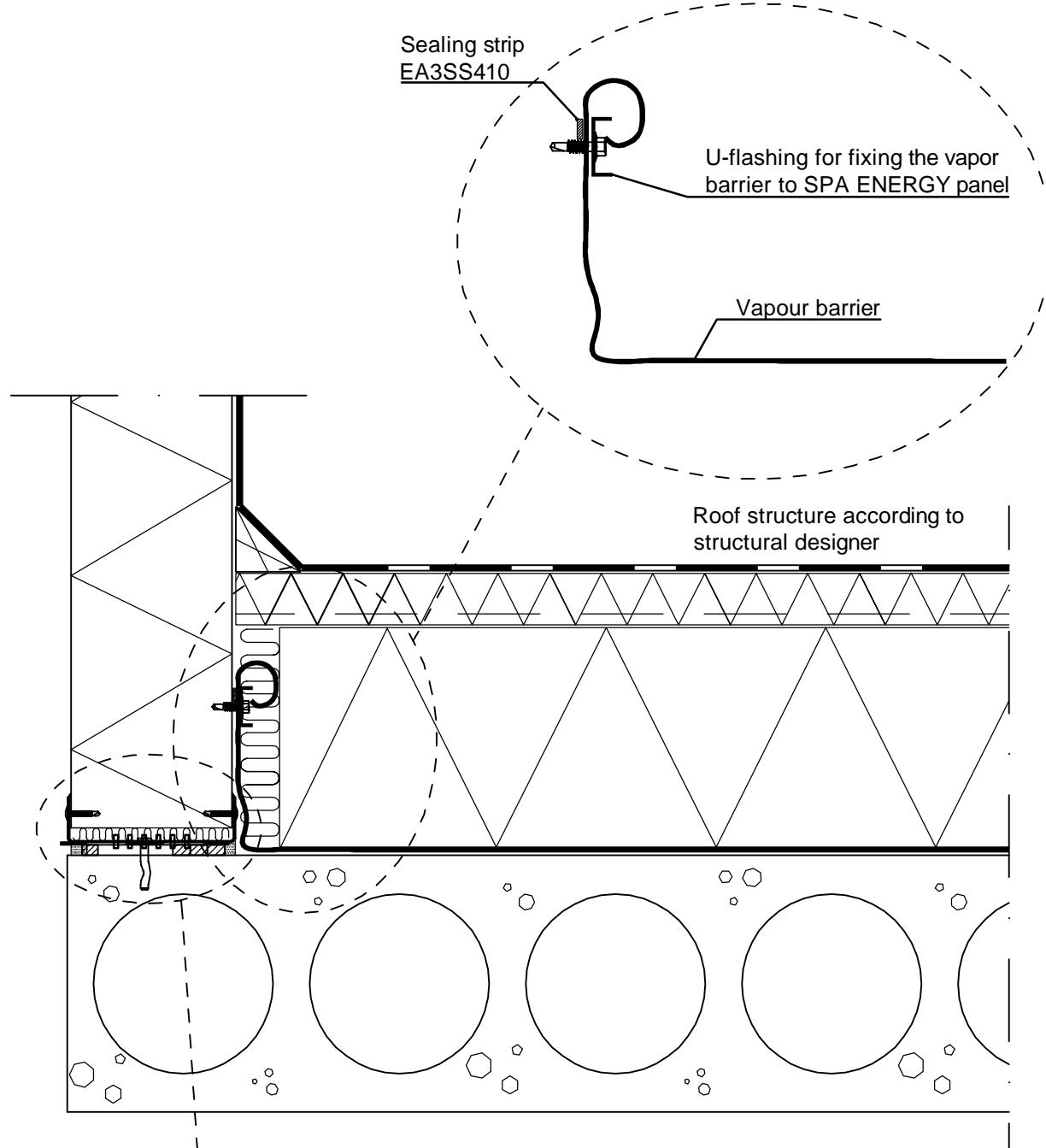


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Contents of drawing

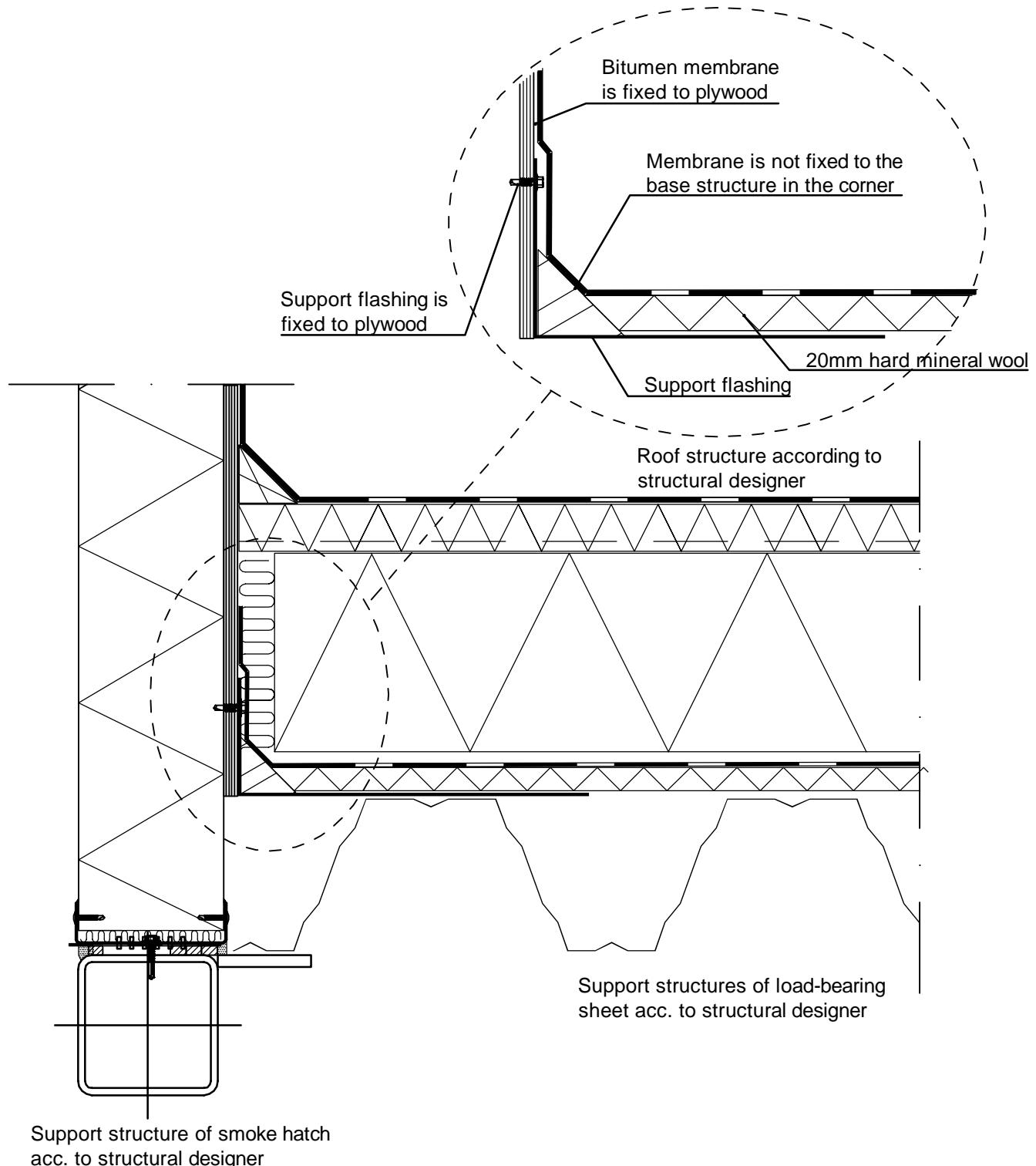
Sandwich panel SPA ENERGY
Additional air tightness details, Smoke hatch
Plastic membrane, Hollow core slab

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-24E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Sandwich panel SPA ENERGY
Additional air tightness details, Smoke hatch
Bitumen membrane, Load-bearing sheet

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-25E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

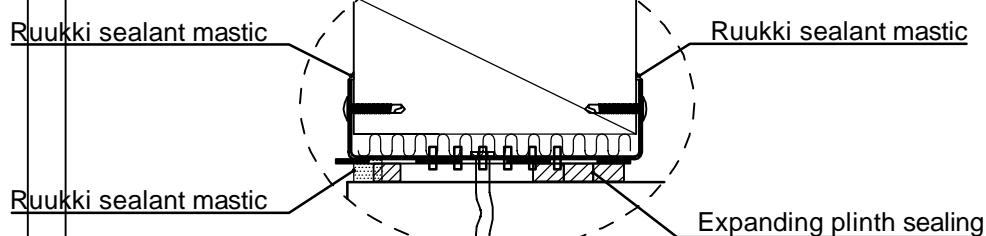
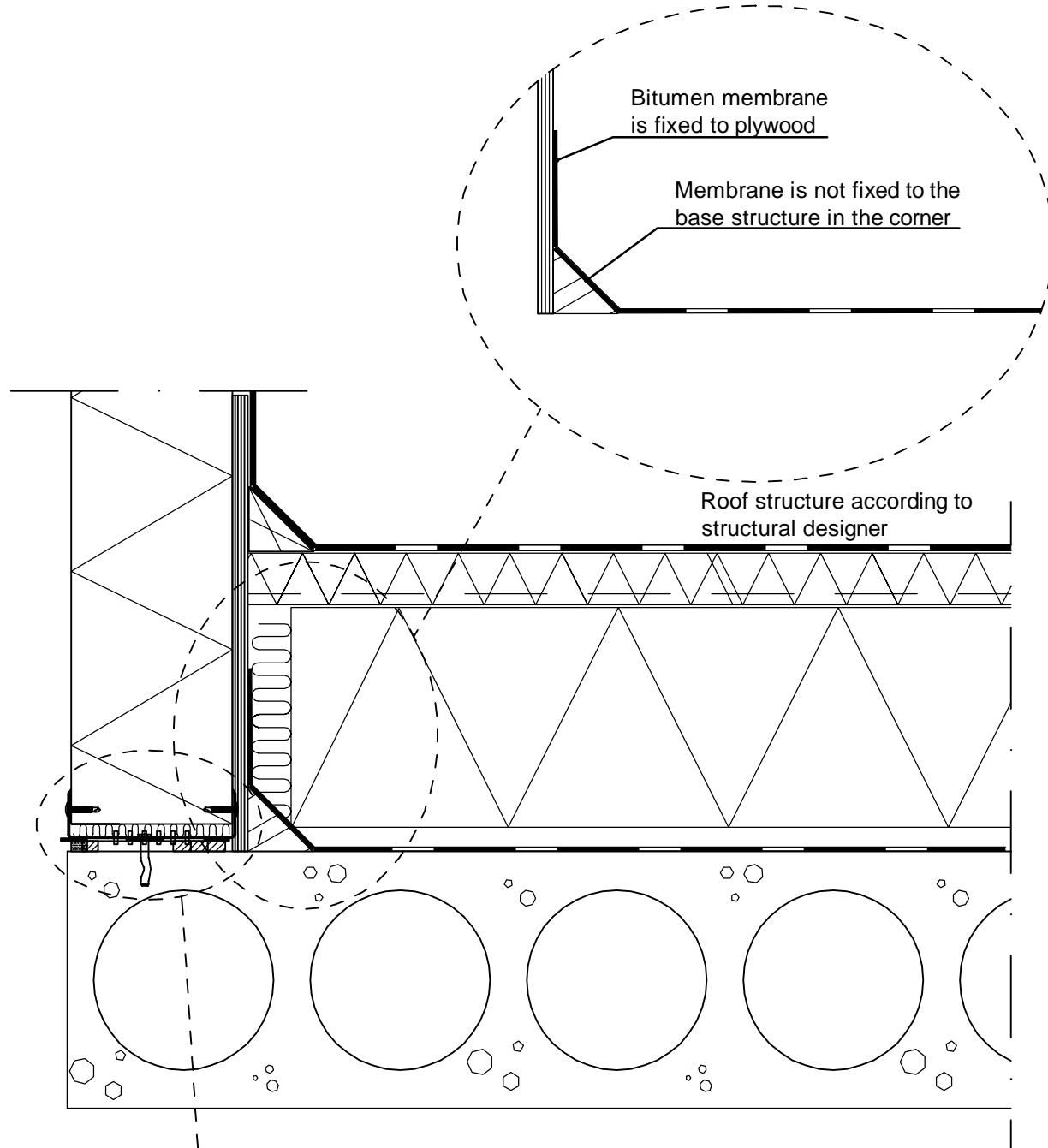


RUUKKI

Contents of drawing

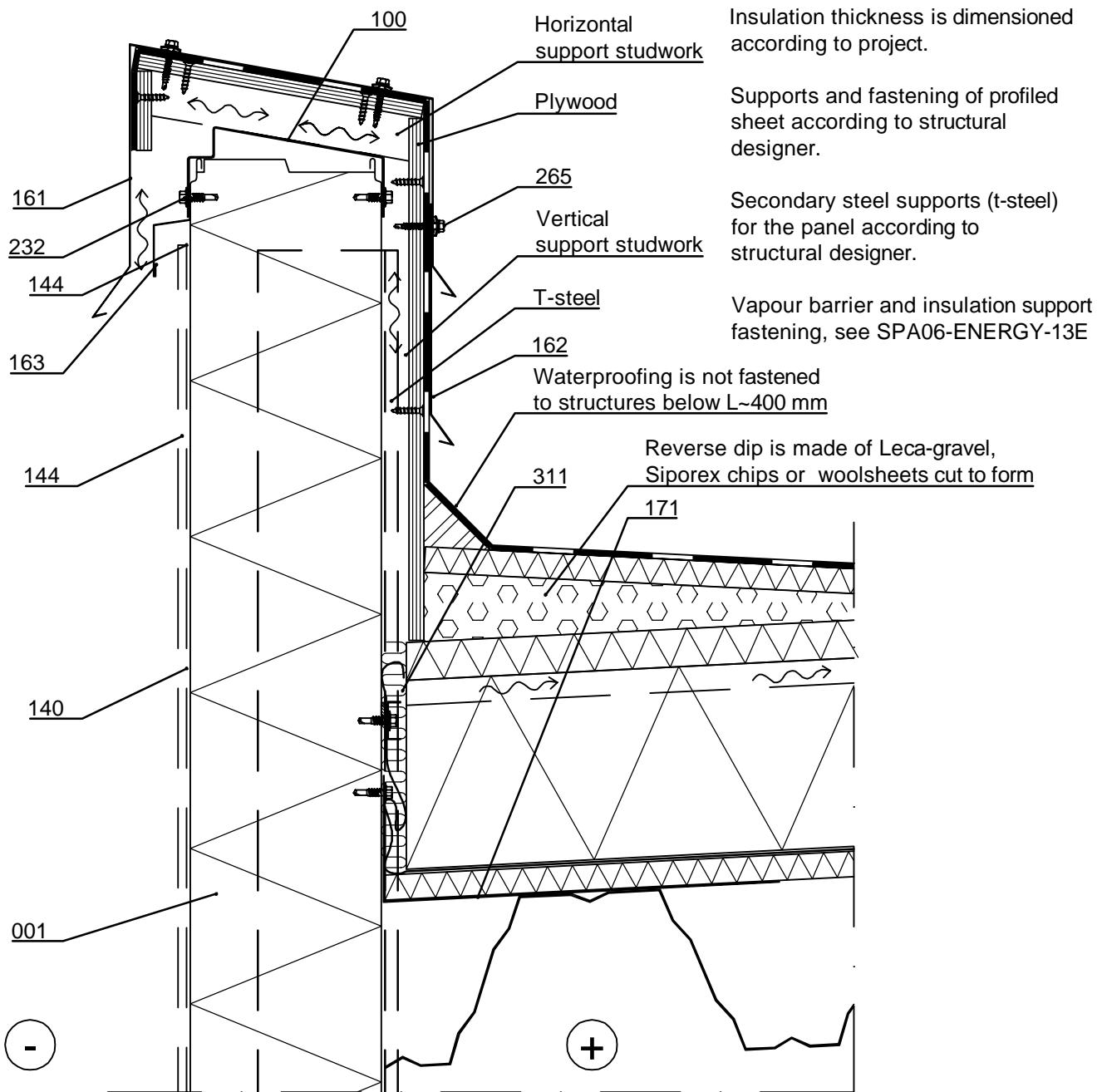
Sandwich panel SPA ENERGY
Additional air tightness details, Smoke hatch
Bitumen membrane, Hollow core slab

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-26E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



**Sandwich panel SPA ENERGY, horizontal inst.
Parapet, side eaves
Invisible flashing**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



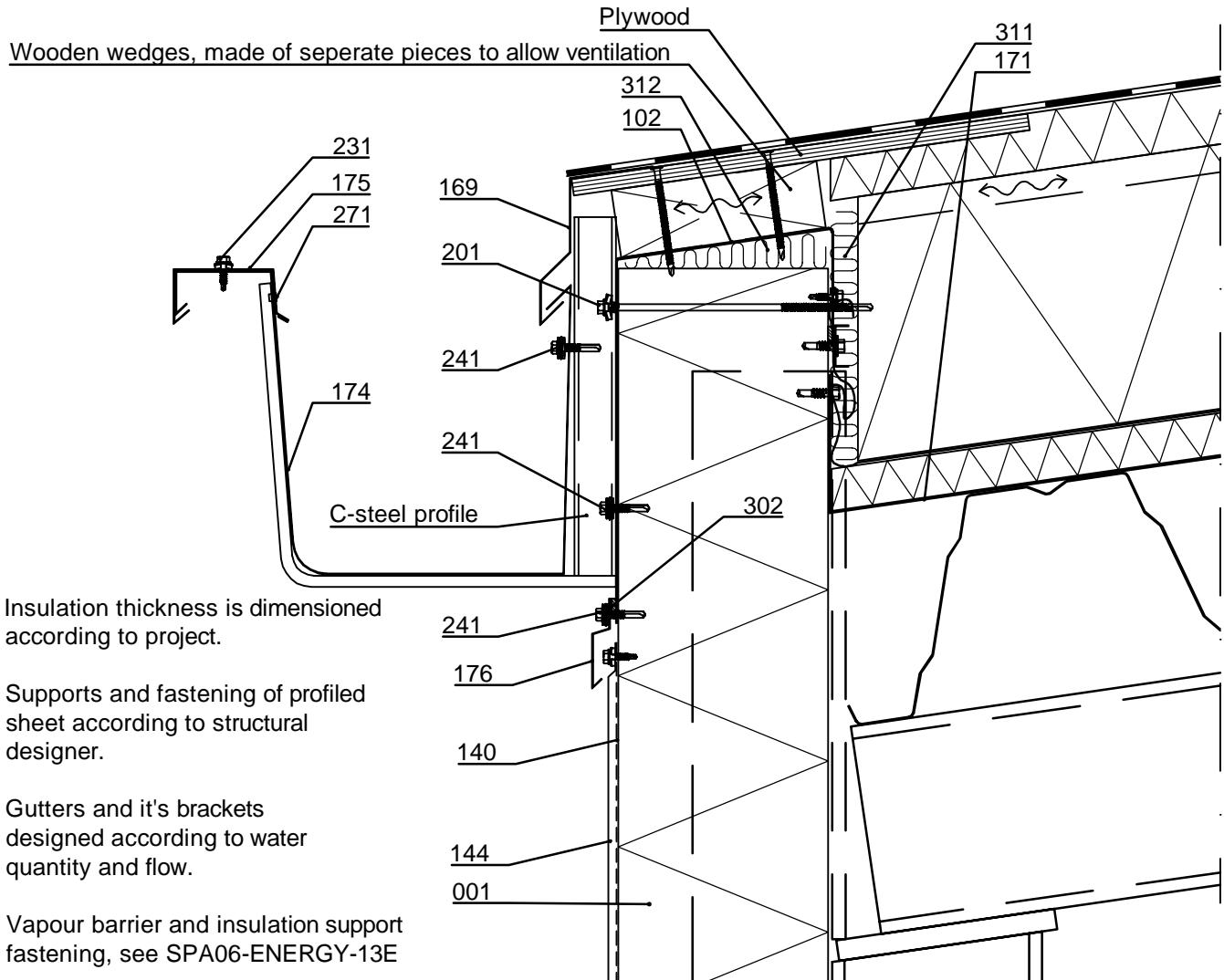
- 001. Sandwich panel SPA ENERGY
- 100. /EA1EPF / Purlin
- 140. /EA1JVB4/ Vertical bottom flashing Invisible
- 144. /EA1JVI/ Vertical joint flashing Invisible
- 161. Eave flashing, $t = 0.6$ mm, according to project
- 162. Cover flashing, $t = 0.6$ mm, according to project
- 163. Storm flashing, $t = 0.6$ mm, according to project

- Ruukki's delivery

- 171. Insulation support flashing
 $t = 0.6$ mm, according to project
- 232. Flashing fastener, without washer
- 265. S3H55042WA4B Fastener, wood c/c600
- 311. /EAWS5657850/ Mineral wool roll

Sandwich panel SPA ENERGY, horizontal inst.
Eaves, side eaves
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-31E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

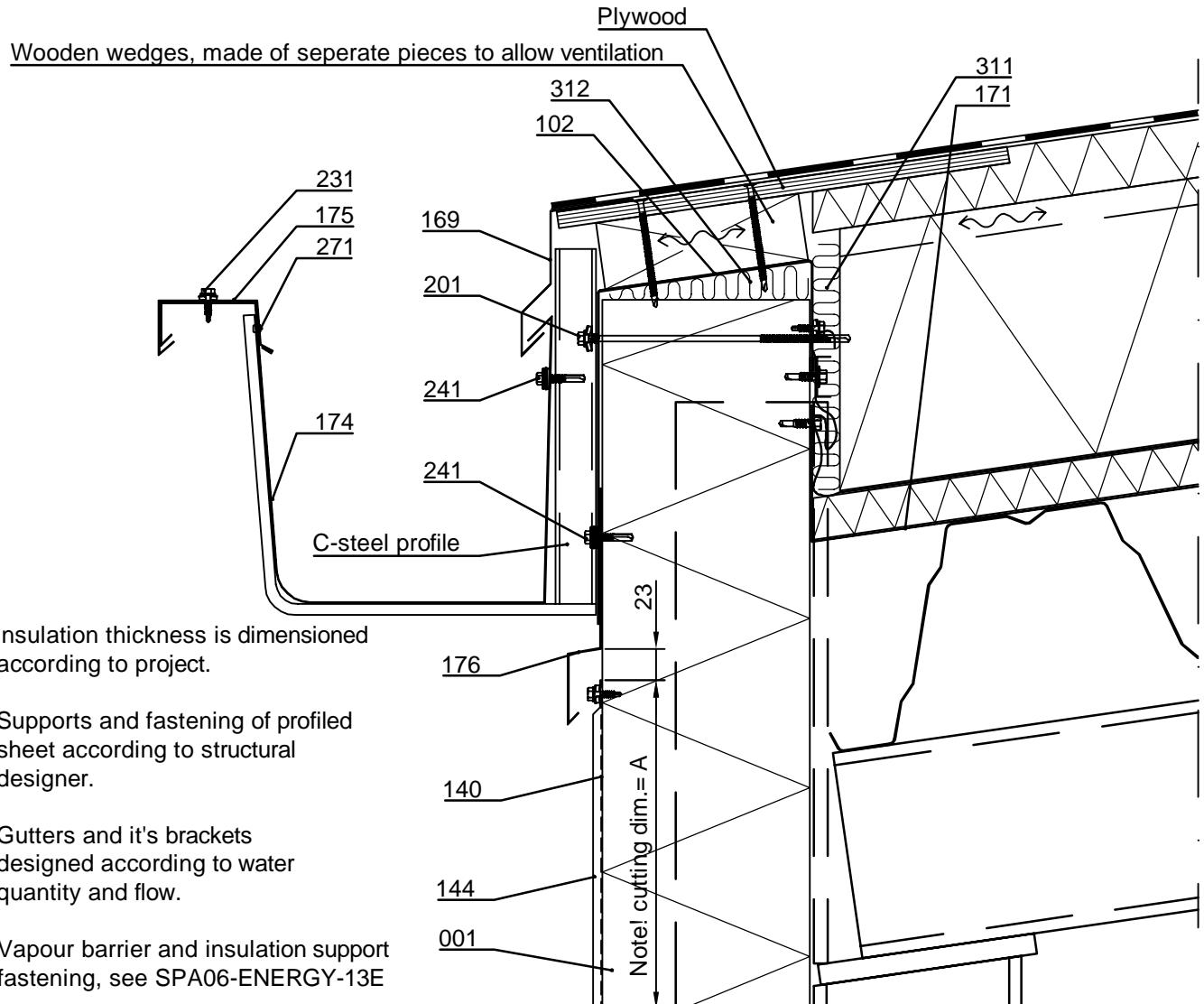


NOTE! If lists 140 and 144 are needed to shorten, then the bottom strip 140 is cut from the upper edge 180mm shorter than the shortened vertical seam strip 144. List 144 is cut from the bottom edge (A) and the cut edge is sanded flat. Vertical seam list 144 installed from the bottom up.

- 001. Sandwich panel SPA ENERGY
- 102. Eave purlin, $t = 2$ mm, according to project
- 140. /EA1JVB4/ Vertical bottom flashing Invisible
- 144. /EA1JVI/ Vertical joint flashing Invisible
- 169. Eave flashing, $t = 0.6$ mm, according to project
- 171. Insulation support fl., $t = 0.6$ mm, acc. to project
- 174. Gutter, $t = 0.6$ mm, according to project
- 175. Cover flashing, $t = 0.6$ mm, according to project
- Ruukki's delivery
- 176. Storm flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 241. Fastener screw, washer with sealing
- 271. Rivet
- 302. /EA3SS410/ Sealing strip
- 311. /EAWS5657850/ Mineral wool roll
- 312. /EAWS____/ Mineral wool

Sandwich panel SPA ENERGY, horizontal inst.
Eaves, side eaves
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-32E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

Gutters and its brackets designed according to water quantity and flow.

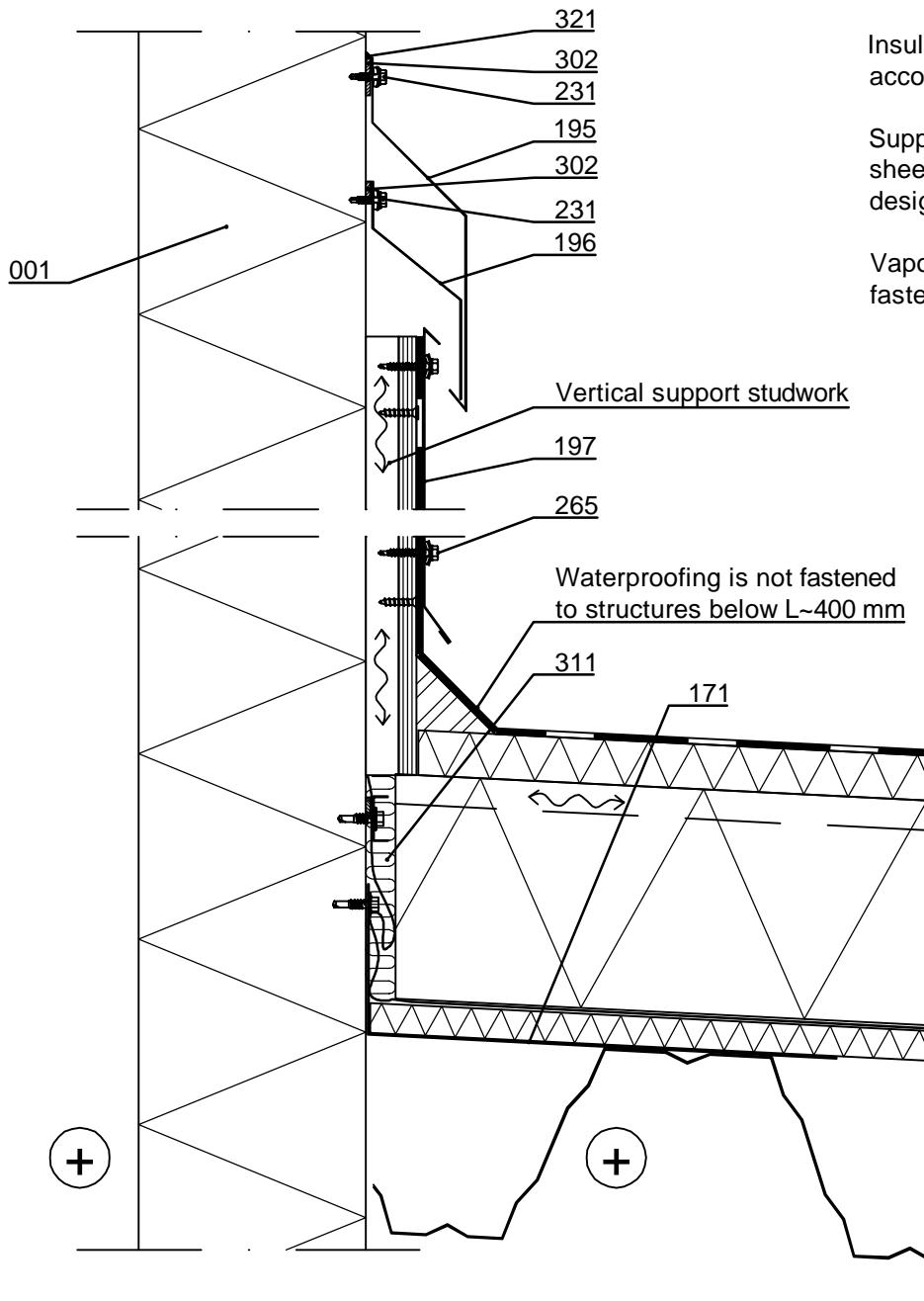
Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

NOTE! If lists 140 and 144 are needed to shorten, then the bottom strip 140 is cut from the upper edge 180mm shorter than the shortened vertical seam strip 144. List 144 is cut from the bottom edge (A) and the cut edge is sanded flat. Vertical seam list 144 installed from the bottom up.

- 001. Sandwich panel SPA ENERGY
- 102. Eave purlin, $t = 2$ mm, according to project
- 140. /EA1JVB4/ Vertical bottom flashing Invisible
- 144. /EA1JVI/ Vertical joint flashing Invisible
- 169. Eave flashing, $t = 0.6$ mm, according to project
- 171. Insulation support fl., $t = 0.6$ mm, acc. to project
- 174. Gutter, $t = 0.6$ mm, according to project
- 175. Cover flashing, $t = 0.6$ mm, according to project
- Ruukki's delivery
- 176. Storm flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 241. Fastener screw, washer with sealing
- 271. Rivet
- 302. /EA3SS410/ Sealing strip
- 311. /EAWS5657850/ Mineral wool roll
- 312. /EAWS____/ Mineral wool

Sandwich panel SPA ENERGY, horizontal installation
Uplifted roofing, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA07-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

<input type="checkbox"/> 001. Sandwich panel SPA ENERGY <input type="checkbox"/> 171. Insulation support flashing, $t = 0.6$ mm, according to project <input type="checkbox"/> 195. Drip flashing, $t = 0.6$ mm, according to project <input type="checkbox"/> 196. Support flashing, $t = 0.6$ mm, according to project <input type="checkbox"/> 197. Cover flashing, $t = 0.6$ mm, according to project <input type="checkbox"/> 231. Flashing fastener, washer with sealing <input checked="" type="checkbox"/> Ruukki's delivery	<input type="checkbox"/> 265. Fastener screw to wood, washer with sealing <input type="checkbox"/> 302. /EA3SS410/ Sealing strip <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas) <input type="checkbox"/> 311. Mineral wool <input type="checkbox"/> 321. Ruukki sealant mastic
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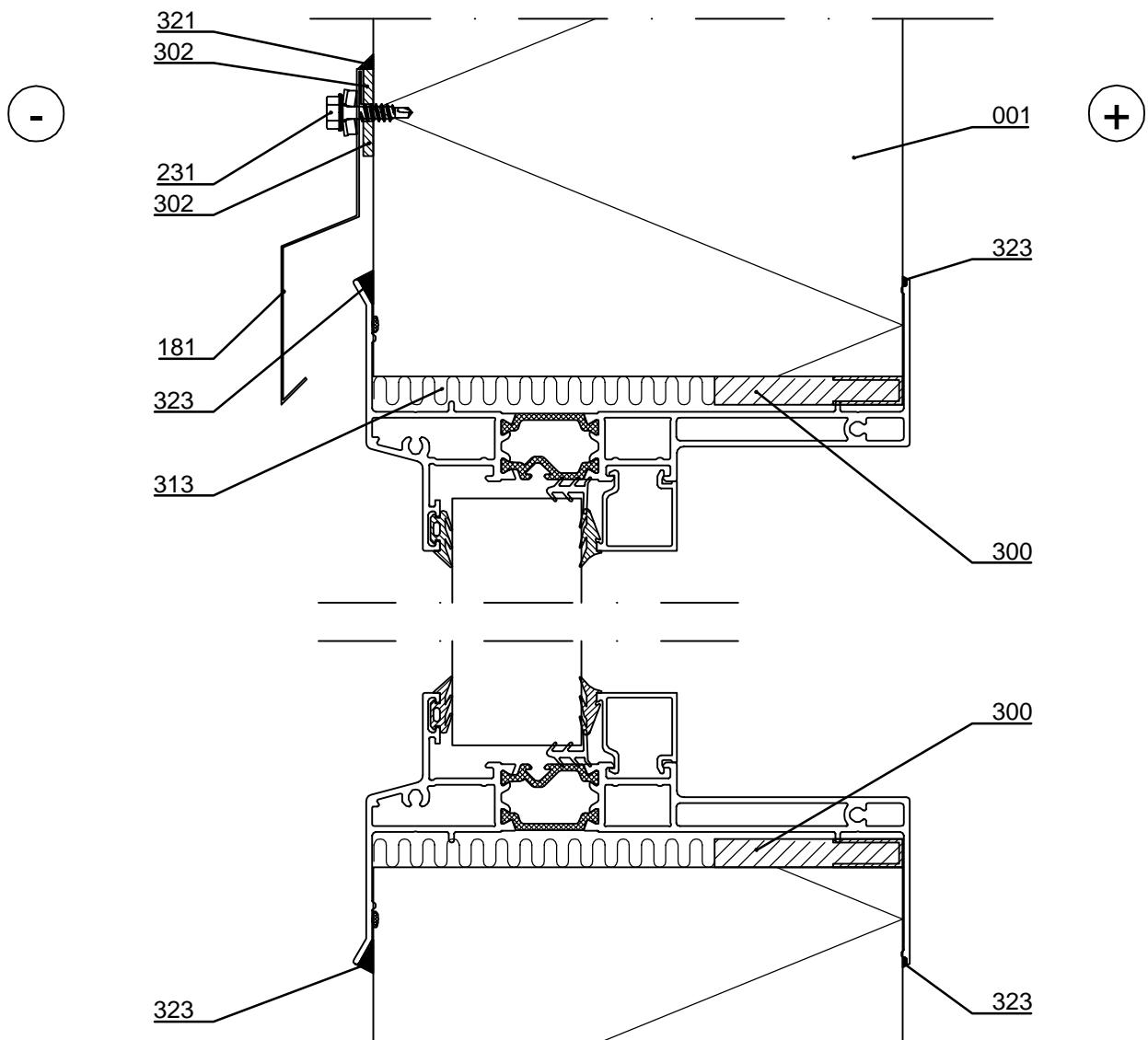
Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy window, vertical section
Small window

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System window is installed during installation of panels. Fastening according to window manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).



- 001. Sandwich panel SPA ENERGY
- 181. Drip flashing, $t = 0.6$ mm, according to project
- 231. Flashing fastener, washer with sealing
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- Ruukki's delivery

- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 313. Mineral wool band (in system window delivery)
- 321. Ruukki sealant mastic
- 323. Ruukki sealant mastic



Contents of drawing

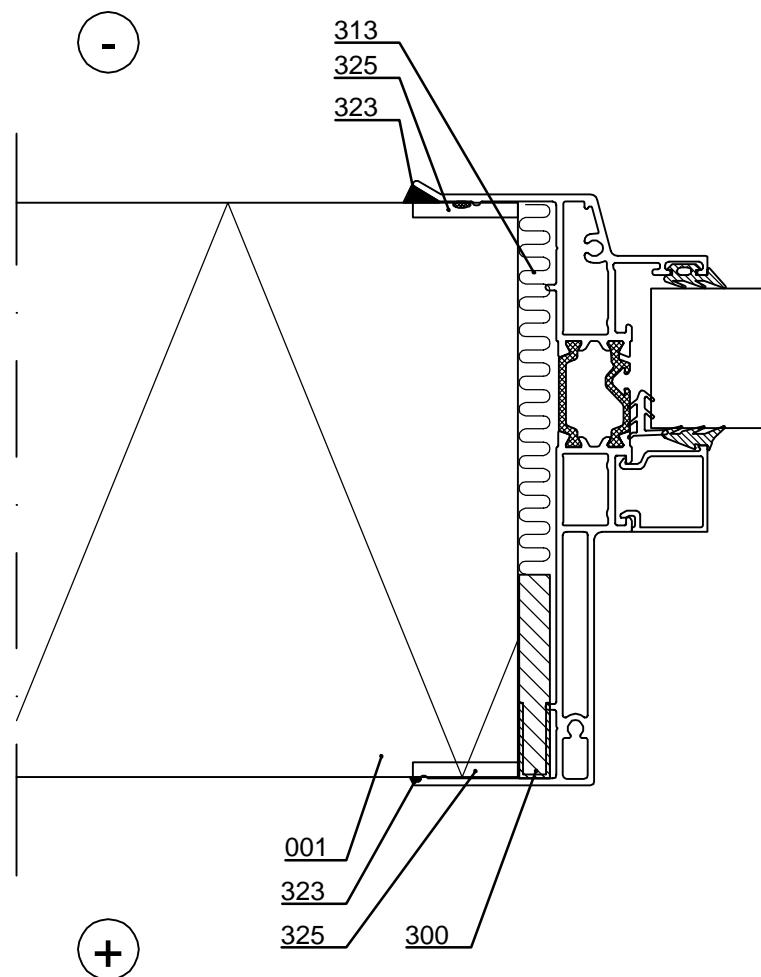
Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy window, horizontal section
Small window

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System window is installed during installation of panels. Fastening according to window manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).



- 001. Sandwich panel SPA ENERGY
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- 313. Mineral wool band (in system window delivery)
- 323. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer and inner female grooves
- Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
 Ruukki energy window, vertical section
 Large window, supporting structure

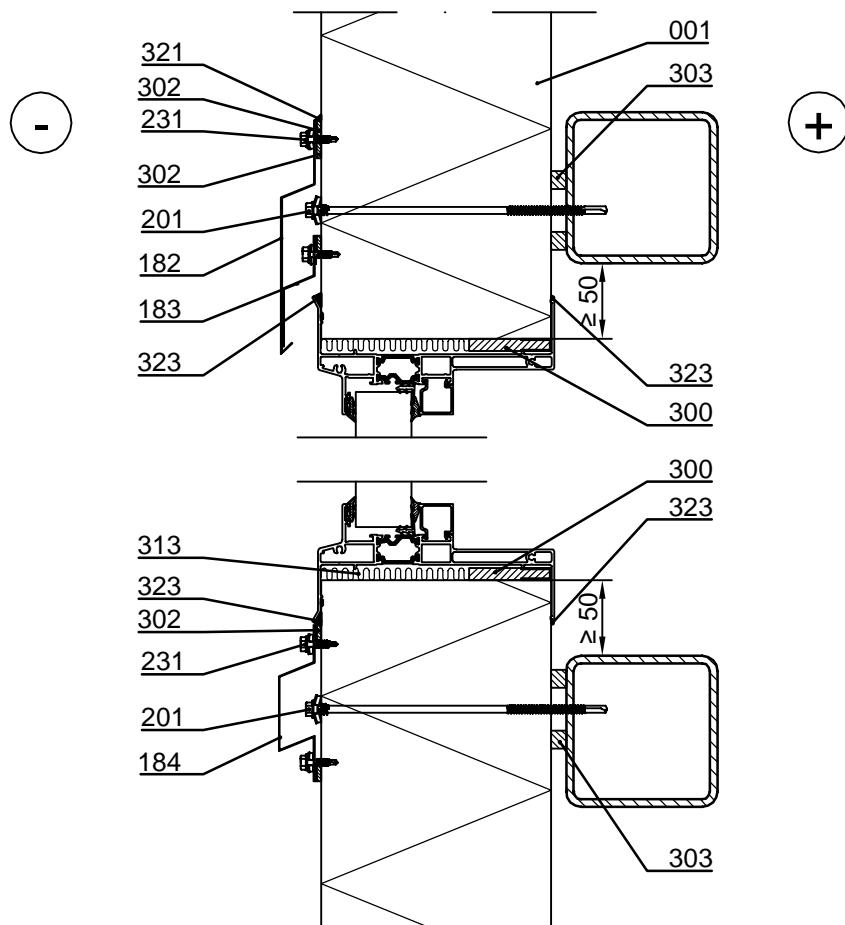
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System window is installed during installation of panels. Fastening according to window manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures according to structural designer.



- 001. Sandwich panel SPA ENERGY
- 182. Drip flashing, $t = 0.6$ mm, according to project
- 183. Storm flashing, $t = 0.6$ mm, according to project
- 184. Cover flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 313. Mineral wool band (in system window delivery)
- 321. Ruukki sealant mastic
- 323. Ruukki sealant mastic

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy window, horizontal section
Large window, supporting structure

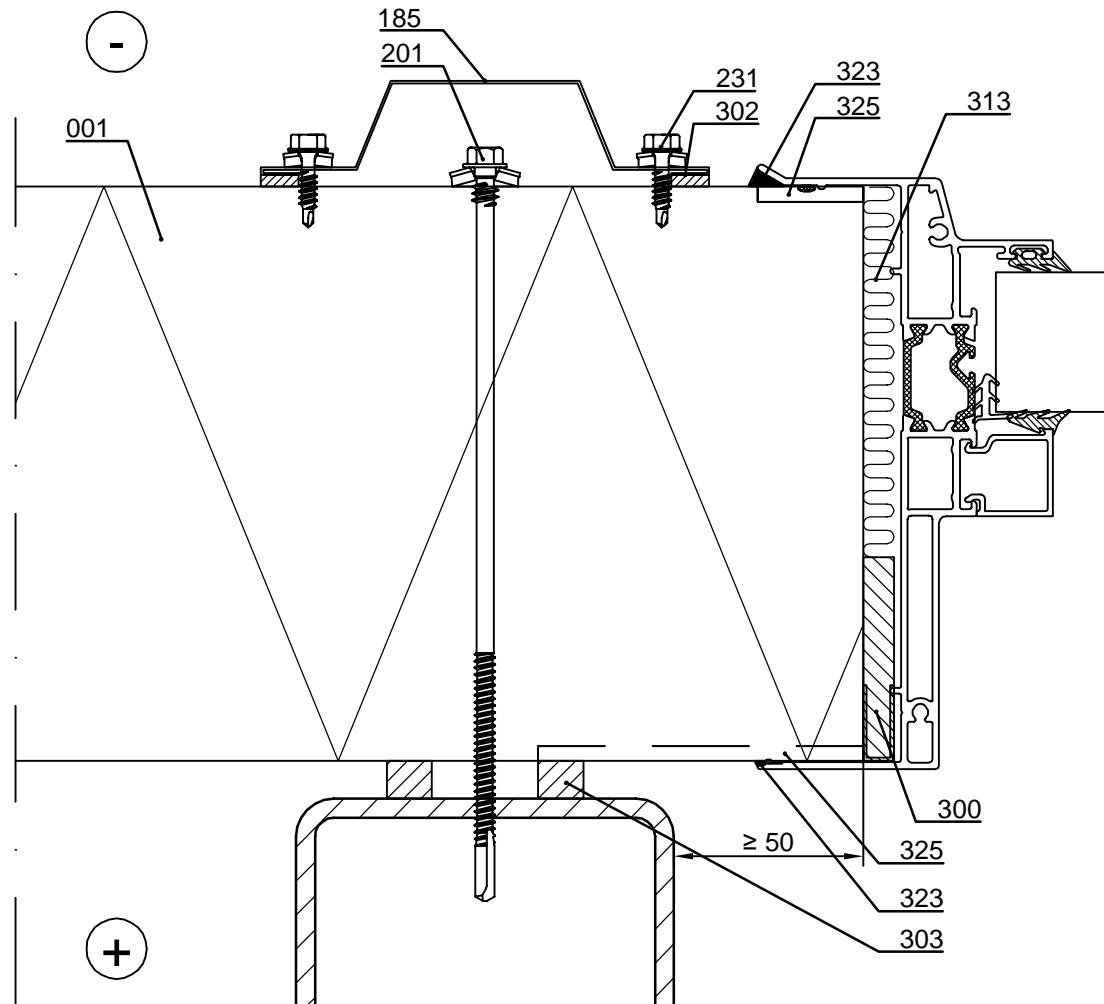
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System window is installed during installation of panels. Fastening according to window manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures according to structural designer.



- 001. Sandwich panel SPA ENERGY
- 185. Cover flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- Ruukki's delivery
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 313. Mineral wool band (in system window delivery)
- 323. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer and inner female grooves

**Sandwich panel SPA ENERGY, horizontal installation
Window, vertical section**

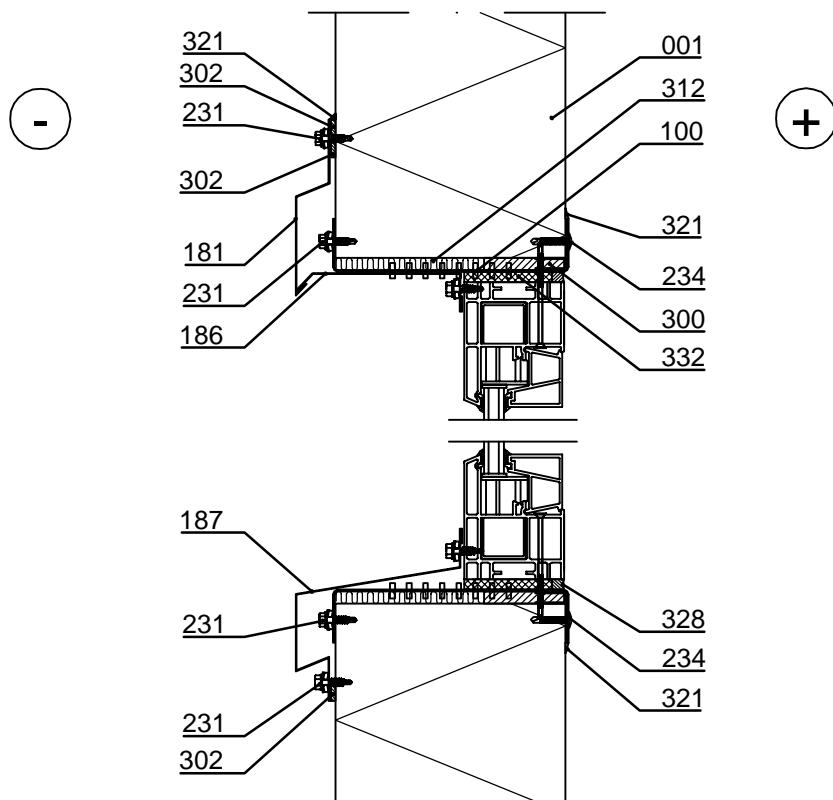
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! When thermal purlin (window purlin, for example) is used around the opening, the thermal holes of the purlin must be sealed with tape (aluminium tape, for example) from the inside of the purlin to ensure tightness of the purlin.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA08-ENERGY-3E).



<input type="checkbox"/> 001. Sandwich panel SPA ENERGY <input type="checkbox"/> 100. /EA1W___/ Window purlin <input type="checkbox"/> 181. Drip flashing, t = 0.6 mm, according to project <input type="checkbox"/> 186. Support- / cover flashing, t = 0.6 mm, acc. to project <input type="checkbox"/> 187. External window sill, t = 0.6 mm, acc. to project <input type="checkbox"/> 231. Flashing fastener, washer with sealing <input type="checkbox"/> 234. Flat head flashing fastener <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)	<input type="checkbox"/> 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas) <input type="checkbox"/> 312. /EAWS___/ Mineral wool <input type="checkbox"/> 321. Ruukki sealant mastic <input type="checkbox"/> 328. Ruukki sealant mastic <input type="checkbox"/> 332. PU foam
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Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal installation
Window, horizontal section

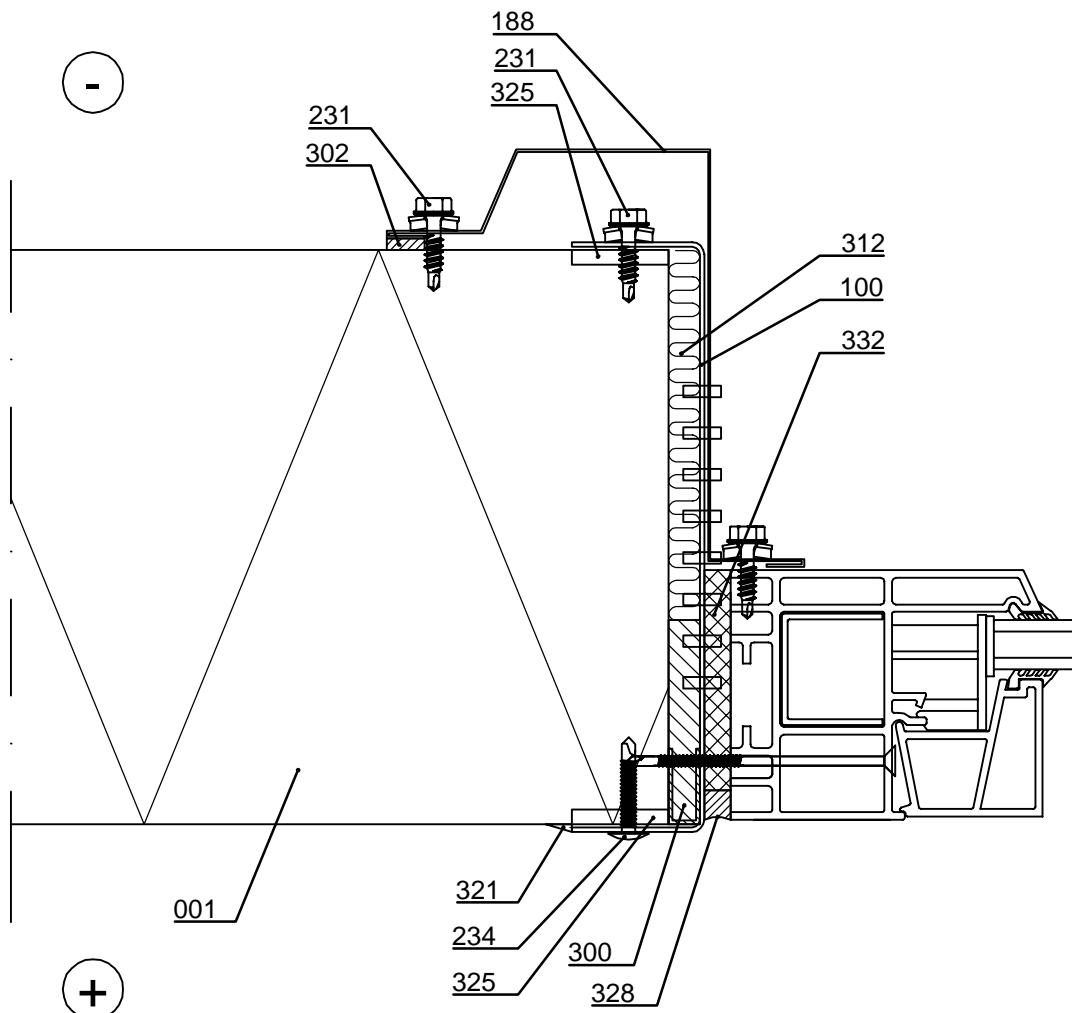
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! When thermal purlin (window purlin, for example) is used around the opening, the thermal holes of the purlin must be sealed with tape (aluminium tape, for example) from the inside of the purlin to ensure tightness of the purlin.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA08-ENERGY-4E).



- 001. Sandwich panel SPA ENERGY
- 100. /EA1W___/ Window purlin
- 188. Cover flashing, t = 0.6 mm, according to project
- 231. Flashing fastener, washer with sealing
- 234. Flat head flashing fastener
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- Ruukki's delivery

- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 312. /EAWS5657850/ Mineral wool band
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer and inner female grooves
- 328. Ruukki sealant mastic
- 332. PU foam

Sandwich panel SPA ENERGY, horizontal inst.
 Window, vertical section
 Invisible flashing

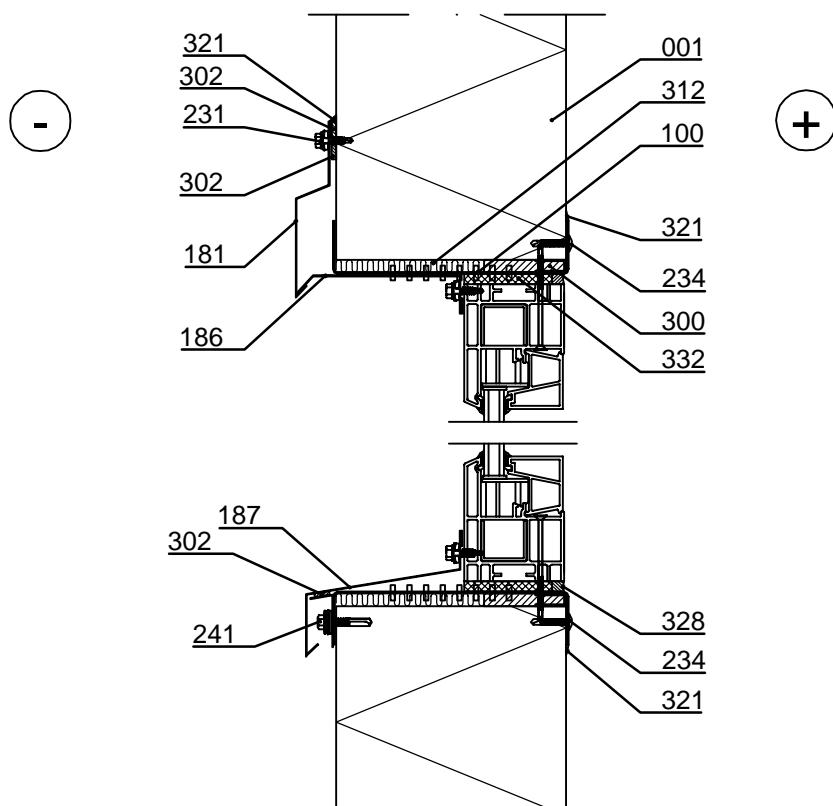
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! When thermal purlin (window purlin, for example) is used around the opening, the thermal holes of the purlin must be sealed with tape (aluminium tape, for example) from the inside of the purlin to ensure tightness of the purlin.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA08-ENERGY-3E).



<input type="checkbox"/> 001. Sandwich panel SPA ENERGY <input type="checkbox"/> 100. /EA1W____/ Window frame stud <input type="checkbox"/> 181. Drip flashing, t = 0.6 mm, according to project <input type="checkbox"/> 186. Support- / cover flashing, t = 0.6 mm, acc. to project <input type="checkbox"/> 187. External window sill, t = 0.6 mm, acc. to project <input type="checkbox"/> 231. Flashing fastener, washer with sealing <input type="checkbox"/> 234. Flat head flashing fastener <input type="checkbox"/> 241. Fastener screw, washer with sealing <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing (plastic surface towards the inside)	<input type="checkbox"/> 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)" <input type="checkbox"/> 312. /EAWS____/ Mineral wool <input type="checkbox"/> 321. Ruukki sealant mastic <input type="checkbox"/> 328. Ruukki sealant mastic <input type="checkbox"/> 332. PU-foam
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Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst. Window, horizontal section Invisible flashing

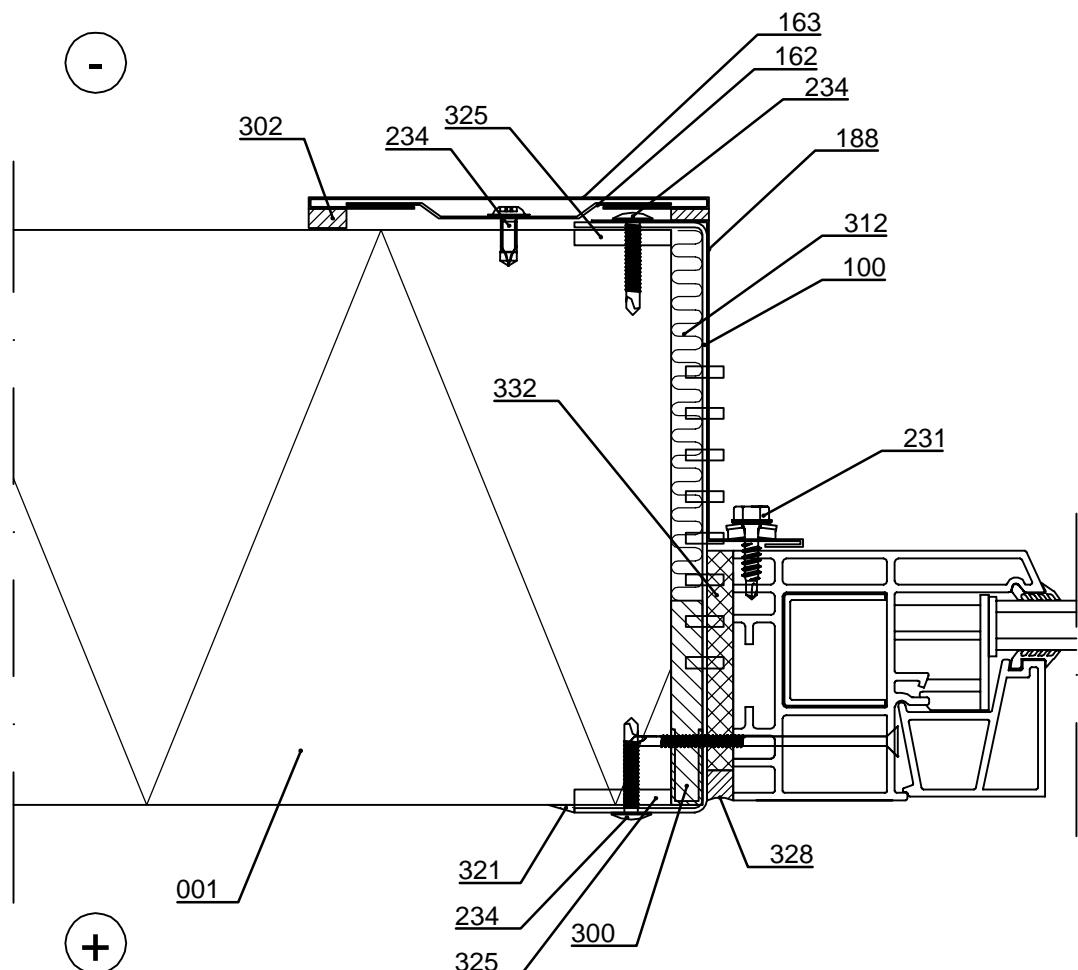
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-31E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! When thermal purlin (window purlin, for example) is used around the opening, the thermal holes of the purlin must be sealed with tape (aluminium tape, for example) from the inside of the purlin to ensure tightness of the purlin.

Note! Remember to seal the grooves of the panels joining the window during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA08-ENERGY-4E).



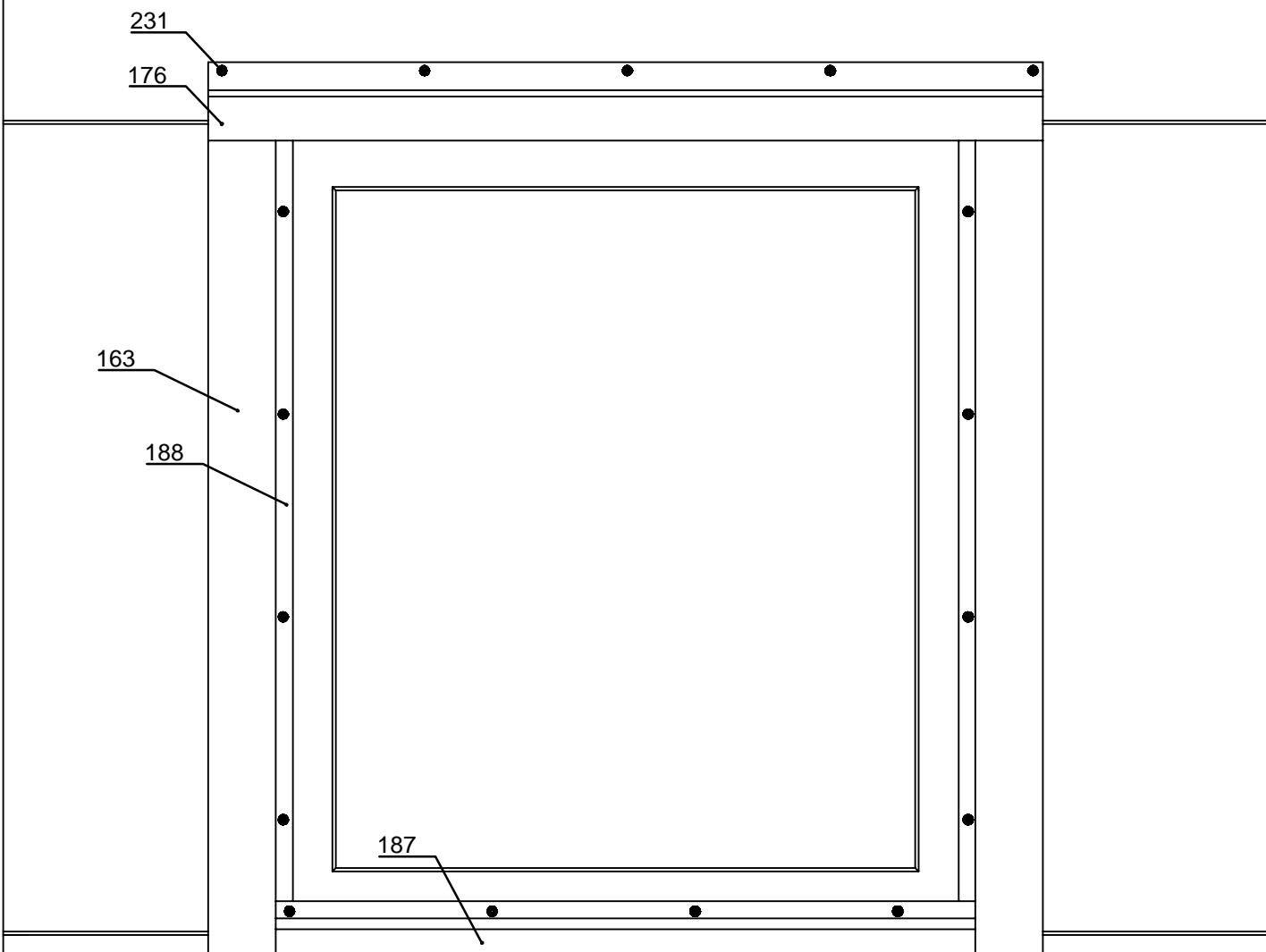
- 001. Sandwich panel SPA ENERGY
- 100. /EA1W____/ Window frame stud
- 162. /EA1WXBI/ Window bottom flashing Invisible
- 163. /EA1WEI/ Window flashing Invisible
- 188. Cover flashing, $t = 0.6$ mm, according to project
- 231. Flashing fastener, washer with sealing
- 234. Flat head flashing fastener
- 300. /EA3SWE54318/ Expandable sealing (plastic surface towards the inside)
- Ruukki's delivery
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer- and inner groove
- 328. Ruukki sealant mastic
- 332. PU-foam

RUUKKI

Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
Window
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-32E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.



- 163. /EA1WEI/ Window flashing Invisible
- 176. Drip flashing, $t = 0.6$ mm, according to project
- 187. External window sill, $t = 0.6$ mm, according to project
- 188. Cover flashing, $t = 0.6$ mm, according to project
- 231. Flashing fastener, washer with sealing
- Ruukki's delivery

RUUKKI

Contents of drawing

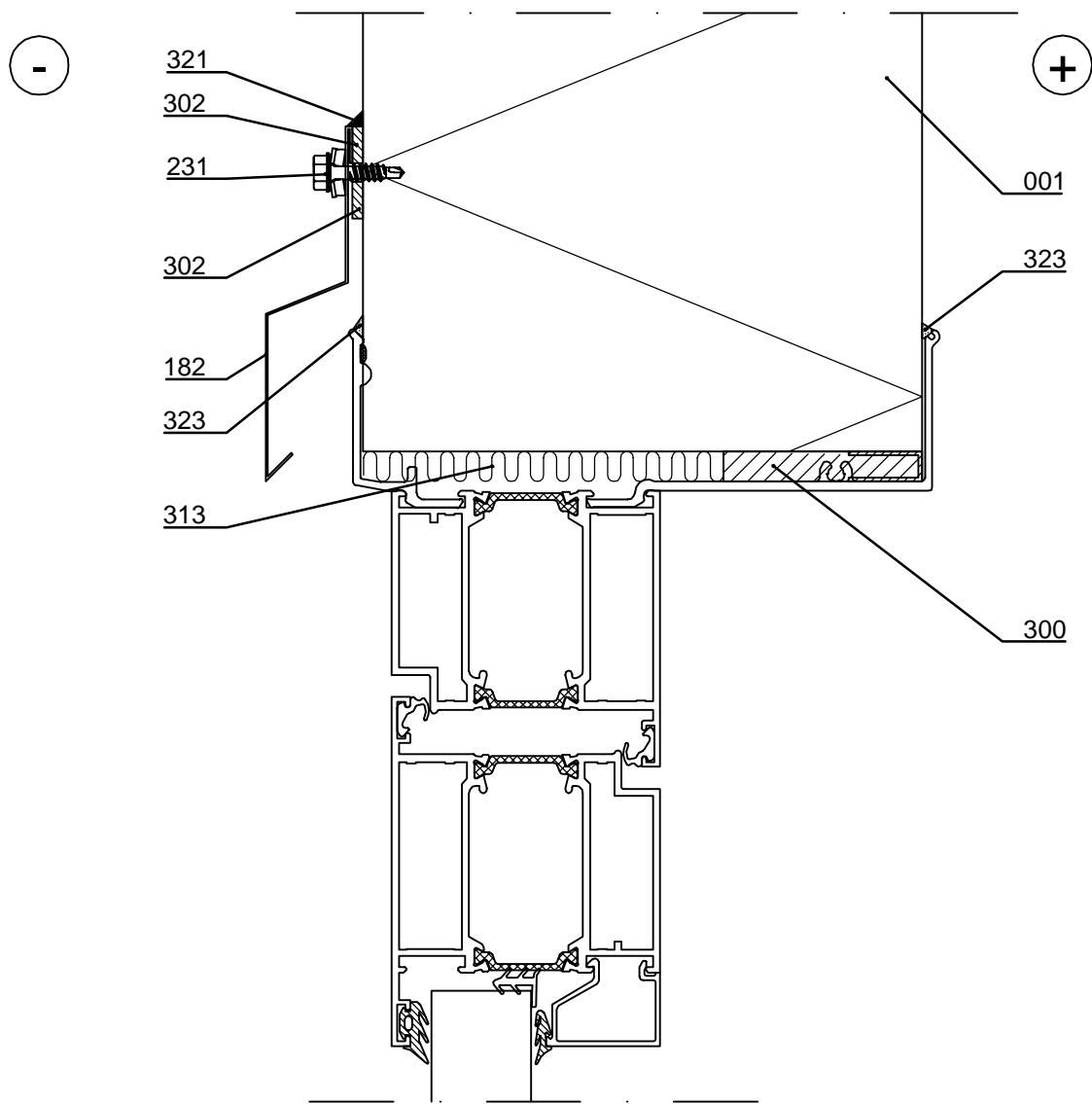
Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy door, vertical section
Single door

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System door is installed during installation of panels. Fastening according to door manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).



- 001. Sandwich panel SPA ENERGY
- 182. Drip flashing, $t = 0.6$ mm, according to project
- 231. Flashing fastener, washer with sealing
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)

- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 313. Mineral wool band (in system door delivery)
- 321. Ruukki sealant mastic
- 323. Ruukki sealant mastic

Ruukki's delivery

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Contents of drawing

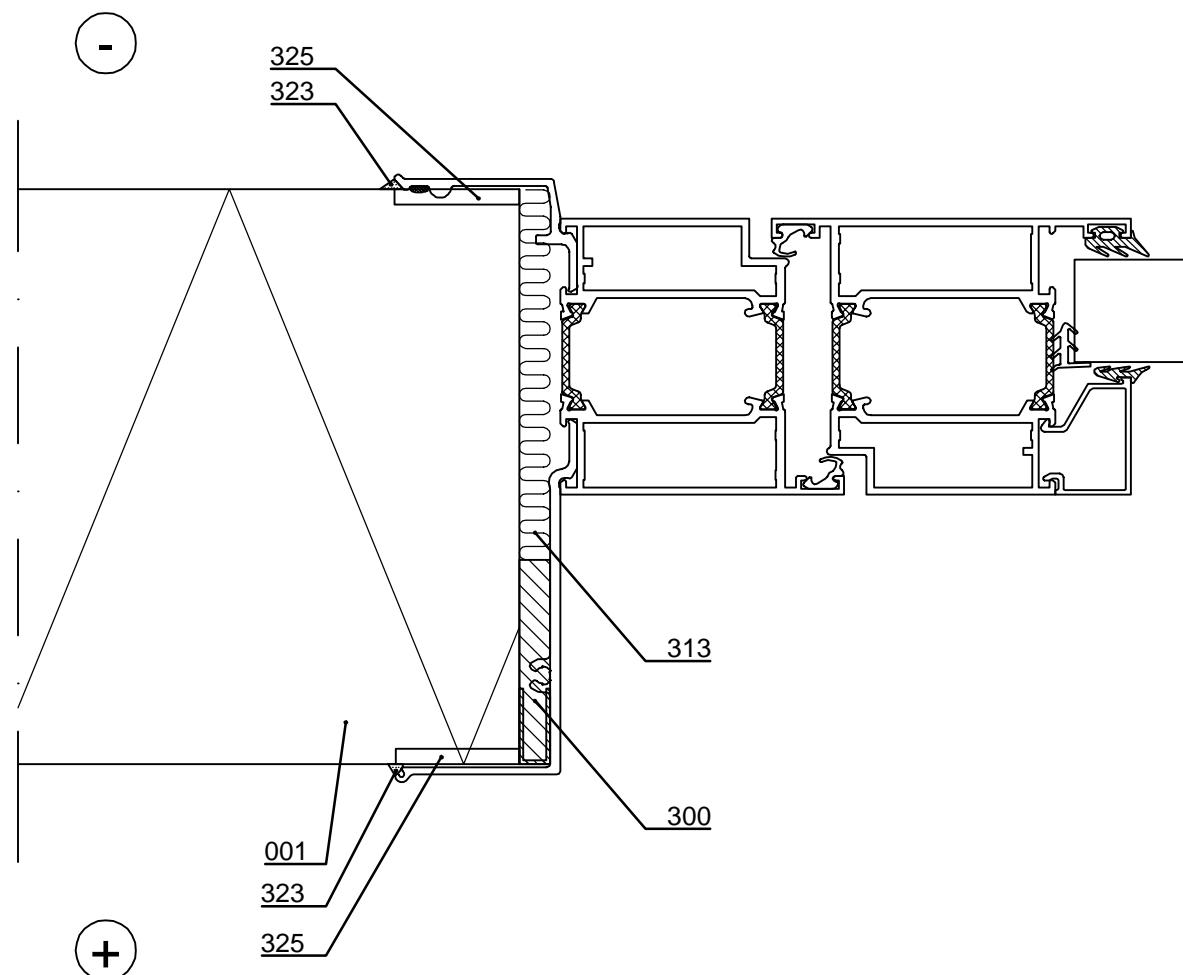
Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy door, horizontal section
Single door

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System door is installed during installation of panels. Fastening according to door manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).



- 001. Sandwich panel SPA ENERGY
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- 313. Mineral wool band (in system door delivery)
- 323. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer and inner female grooves
- Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy door, vertical section
Double door, supporting structure

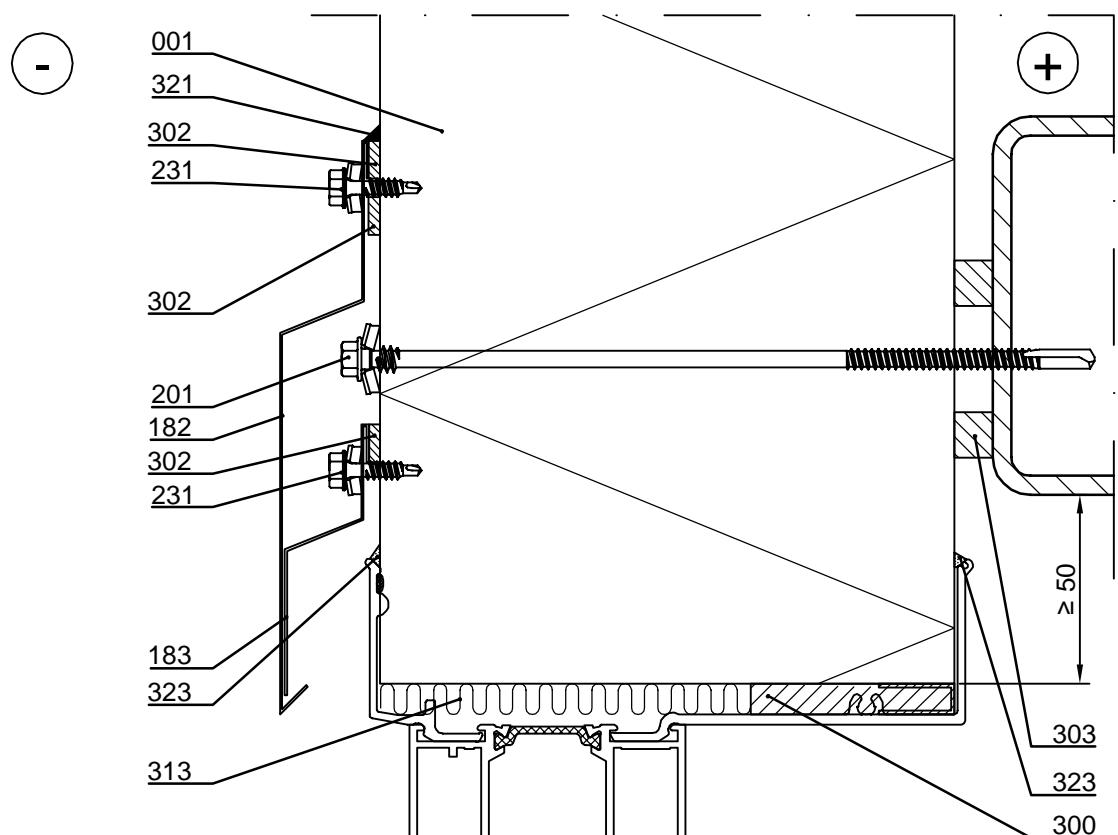
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System door is installed during installation of panels. Fastening according to door manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures according to structural designer.



- 001. Sandwich panel SPA ENERGY
- 182. Drip flashing, $t = 0.6$ mm, according to project
- 183. Storm flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 313. Mineral wool band (in system door delivery)
- 321. Ruukki sealant mastic
- 323. Ruukki sealant mastic

Ruukki's delivery

Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy door, horizontal section
Double door, supporting structure

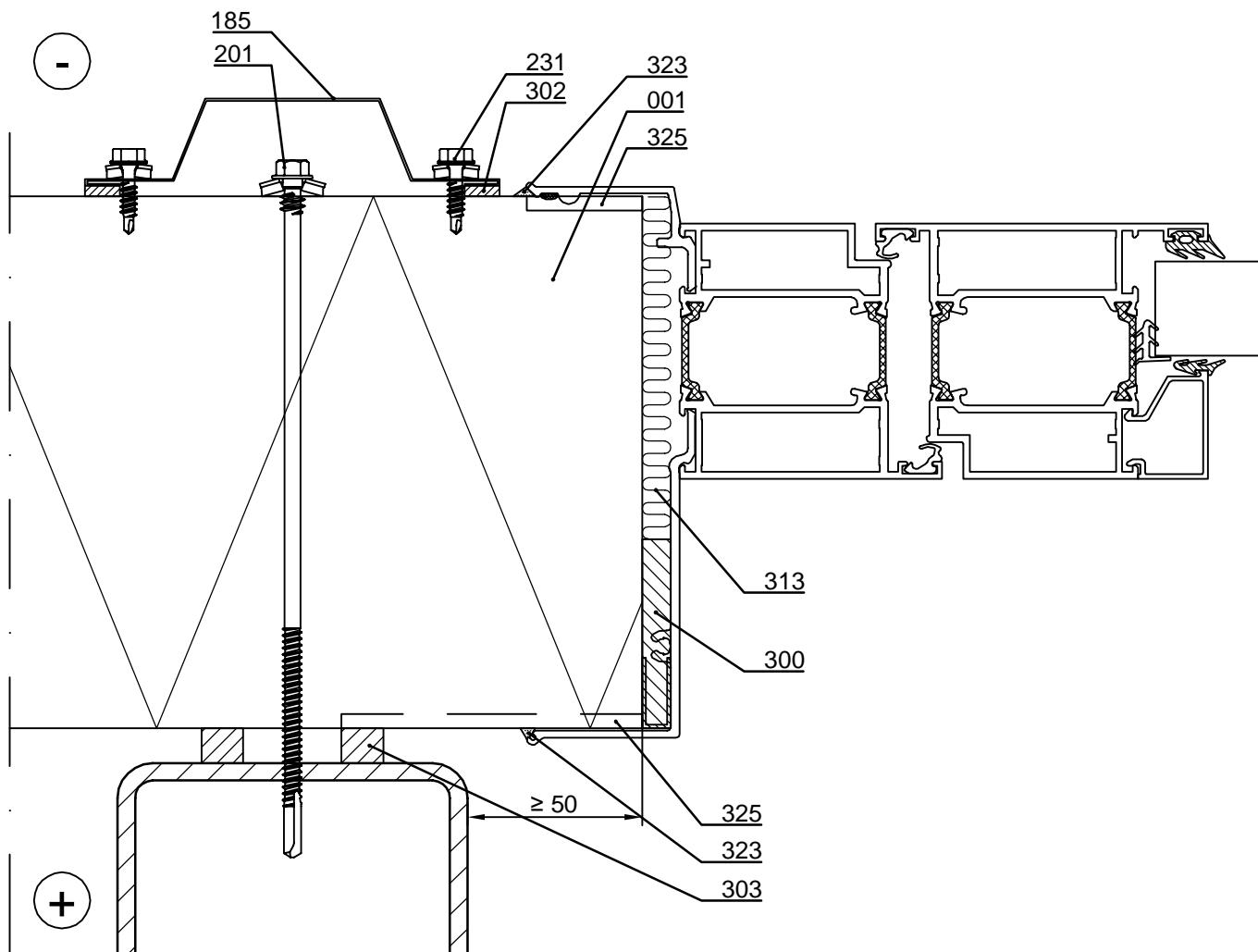
Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! System door is installed during installation of panels. Fastening according to door manufacturers instructions.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures according to structural designer.



- 001. Sandwich panel SPA ENERGY
- 185. Cover flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)

- 303. /EA3SS1210/ Sealing strip
- 313. Mineral wool band (in system door delivery)
- 323. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer and inner female grooves

Ruukki's delivery



Contents of drawing

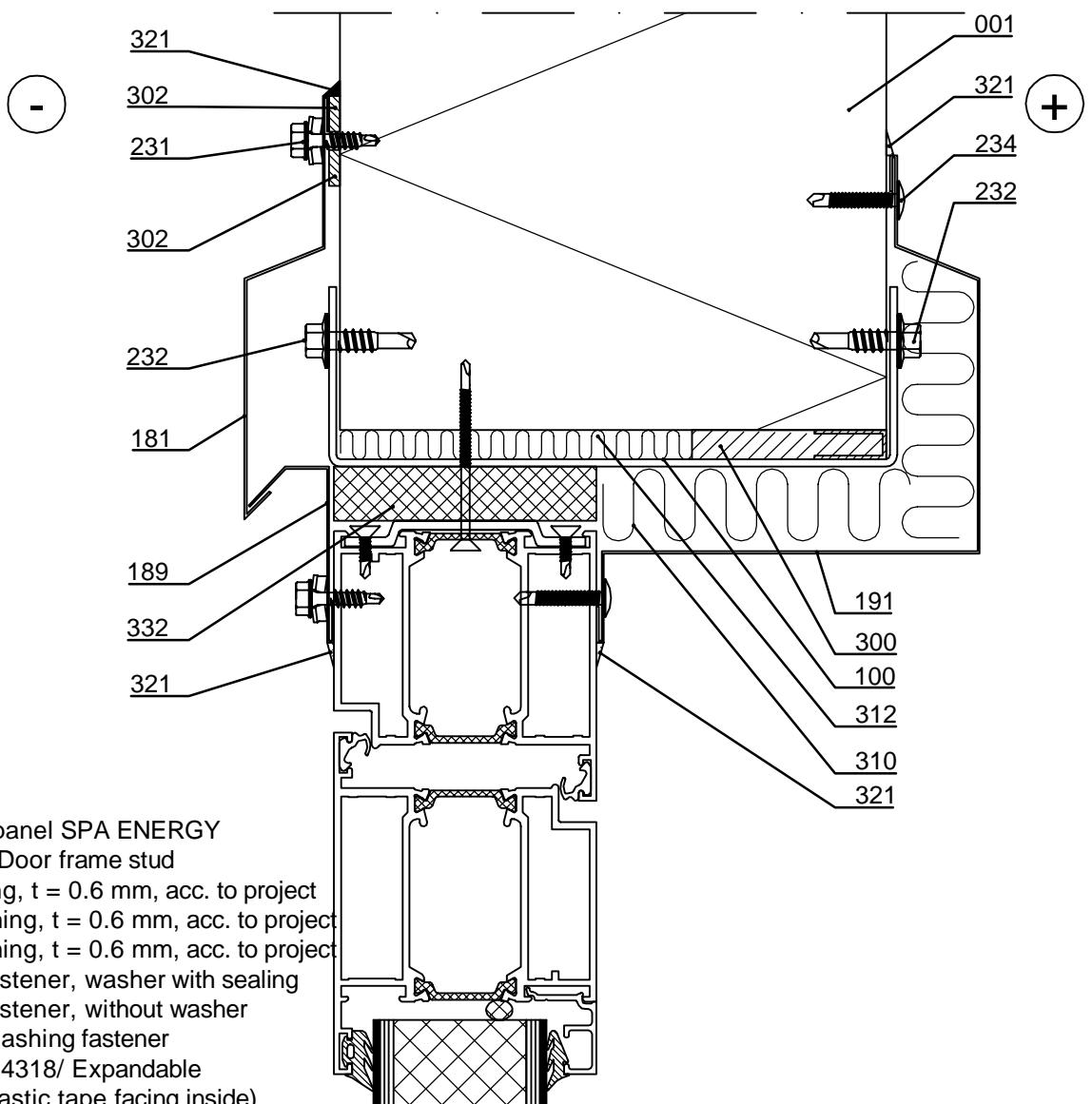
Sandwich panel SPA ENERGY, horizontal
installation
Door, vertical section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

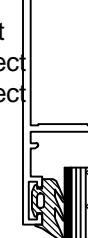
Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA09-ENERGY-3E).



- 001. Sandwich panel SPA ENERGY
- 100. EA1D____ / Door frame stud
- 181. Drip flashing, t = 0.6 mm, acc. to project
- 189. Cover flashing, t = 0.6 mm, acc. to project
- 191. Cover flashing, t = 0.6 mm, acc. to project
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 234. Flat head flashing fastener
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 310. /EA_____ / Mineral- / stonewool
- 312. /EAWS_____ / Mineral wool
- 321. Ruukki sealant mastic
- 322. PU-foam

Ruukki's delivery



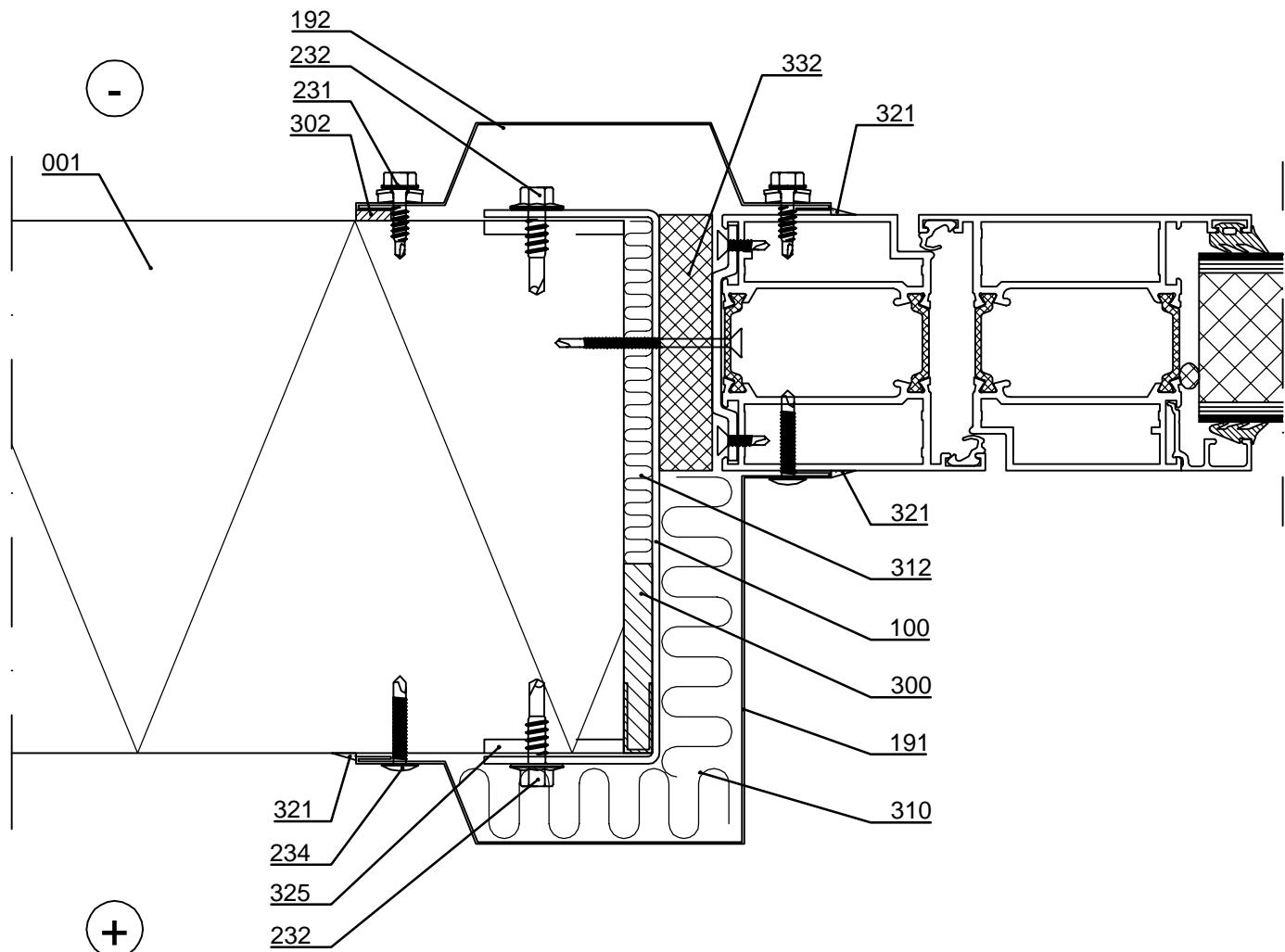
Sandwich panel SPA ENERGY, horizontal installation
 Door, horizontal section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA09-ENERGY-4E).



- 001. Sandwich panel SPA ENERGY
- 100. EA1D____/ Door frame stud
- 191. Cover flashing, t = 0.6 mm, according to project
- 192. Cover flashing, t = 0.6 mm, according to project
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 234. Flat headed flashing fastener
- 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)

- Ruukki's delivery

- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 310. /EA____/ Mineral- / stonewool
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer and inner female grooves
- 332. PU foam



Contents of drawing

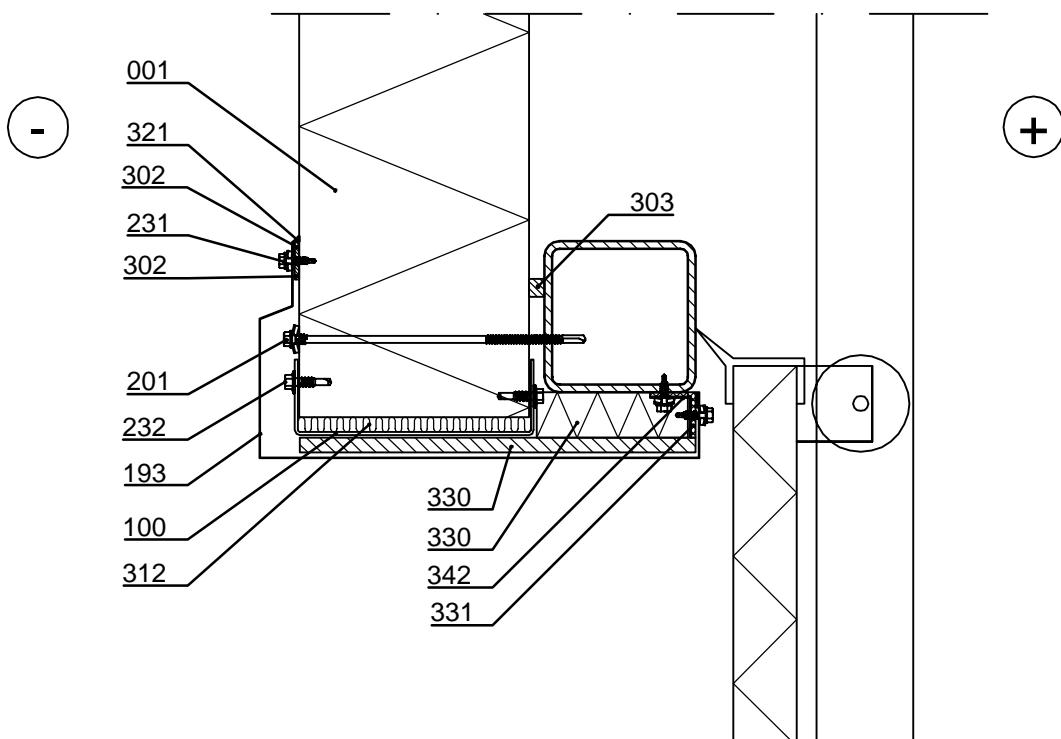
**Sandwich panel SPA ENERGY, horizontal installation
Overhead door, vertical section**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-7E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures according to structural designer.



- 001. Sandwich panel SPA ENERGY
- 100. EA1D____/ Door frame stud
- 193. Drip-/cover flashing, t = 0.6 mm, acc. to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas)

- Ruukki's delivery

- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS____/ Mineral wool
- 321. Ruukki sealant mastic
- 330. PU insulation
- 331. EPDM sealing
- 342. L-profile

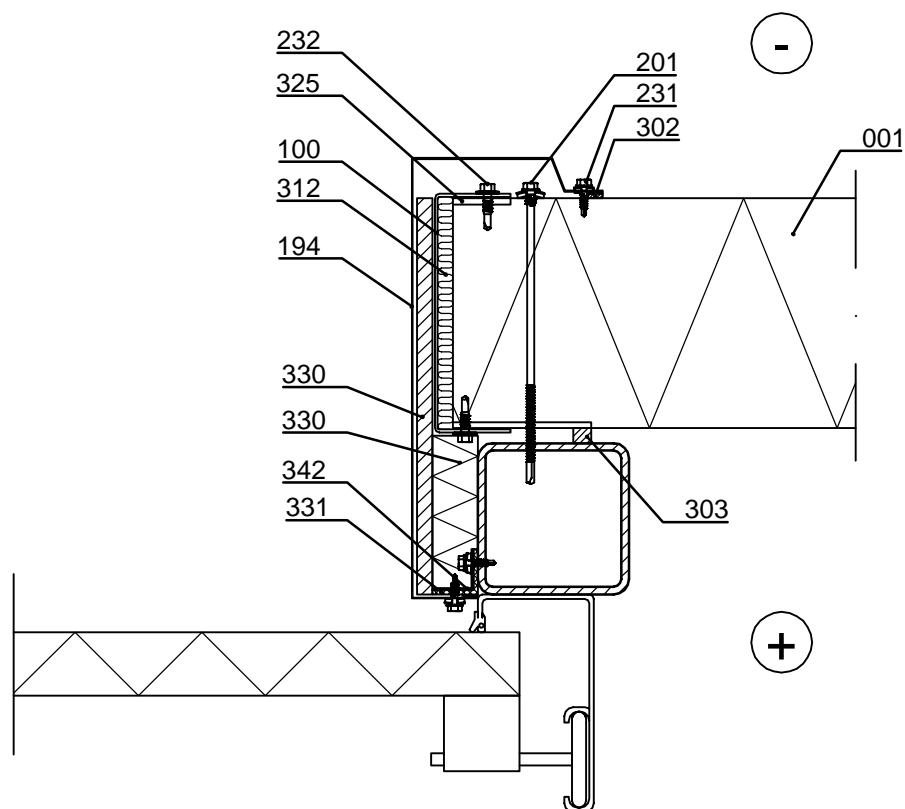
Sandwich panel SPA ENERGY, horizontal installation
 Overhead door, horizontal section

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-8E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures according to structural designer.



- 001. Sandwich panel SPA ENERGY
- 100. EA1D____/ Door frame stud
- 194. Cover flashing, $t = 0.6$ mm, according to project
- 201. Self-drilling element screw, washer with sealing
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 302. /EA3SS410/ Sealing band for flashing /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 303. /EA3SS1210/ Sealing strip
- 312. /EAWS____/ Mineral wool
- 330. PU insulation
- 331. EPDM sealing
- 342. L-profile
- 325. Ruukki sealant mastic during installation to outer and inner female grooves

Ruukki's delivery

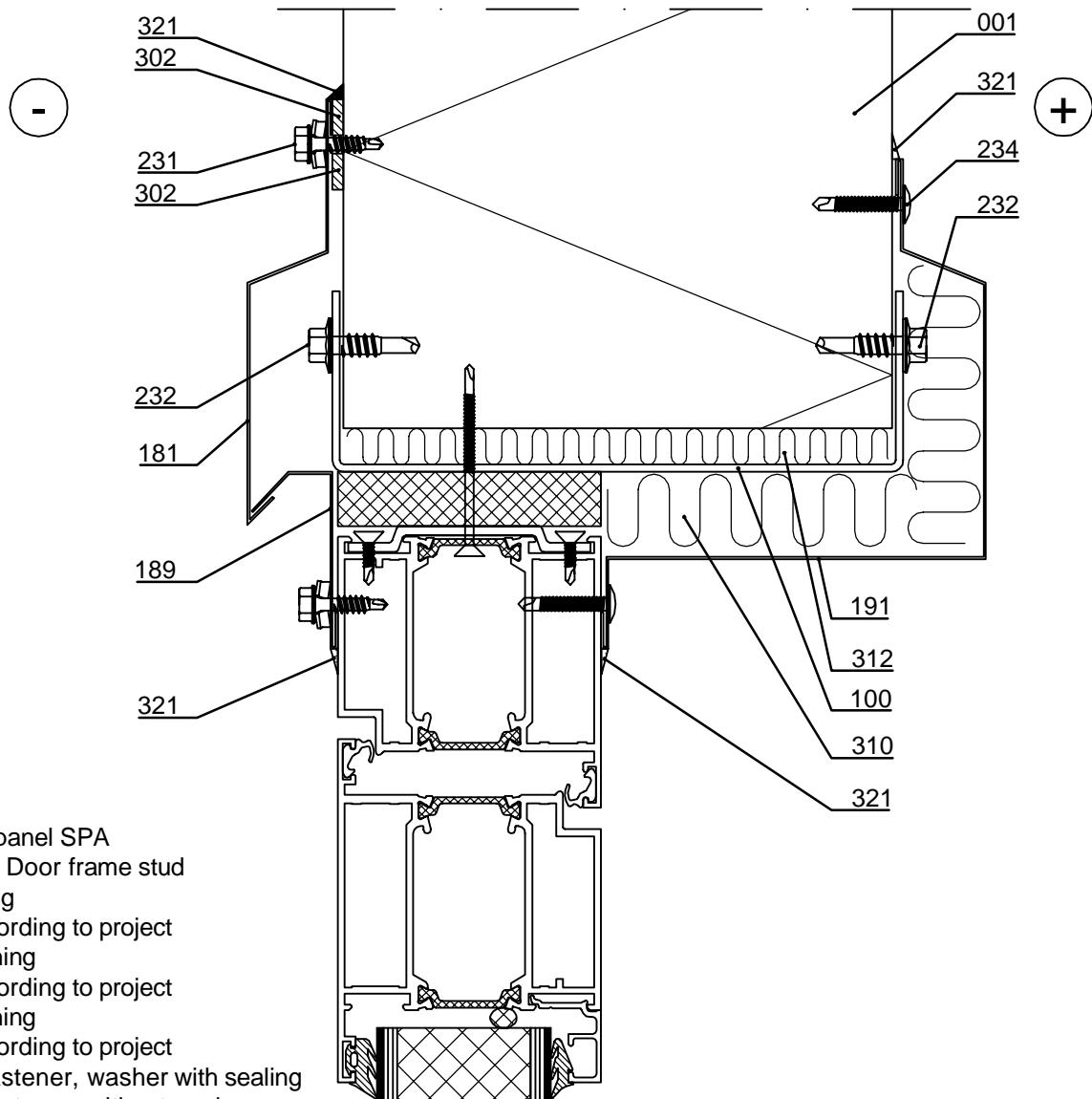
Sandwich panel SPA ENERGY, horizontal inst.
 Door, vertical section
 Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA09-ENERGY-3E).



- 001. Sandwich panel SPA
- 100. /EA1D___/ Door frame stud
- 181. Drip flashing
t = 0.6 mm, according to project
- 189. Cover flashing
t = 0.6 mm, according to project
- 191. Cover flashing
t = 0.6 mm, according to project
- 231. Flashing fastener, washer with sealing
- 232. Flashing fastener, without washer
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 310. Mineral wool
- 312. /EAWS___/ Mineral wool
- 321. Ruukki sealant mastic
- Ruukki's delivery

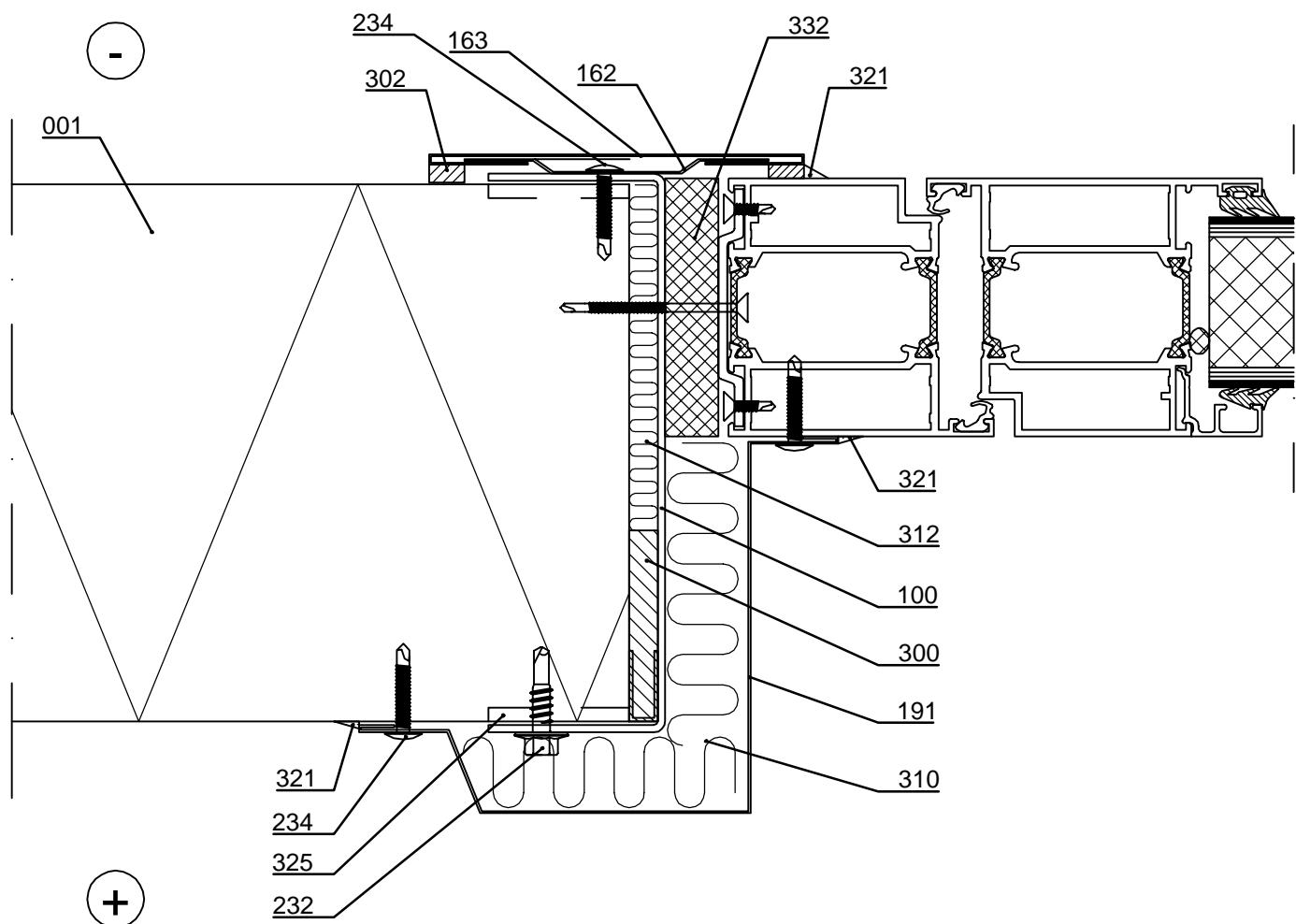
Sandwich panel SPA ENERGY, horizontal inst.
 Door, horizontal section
 Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-31E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! Openings must be taken into account in dimensioning of panels.

Note! Remember to seal the grooves of the panels joining the door during the installation with Ruukki sealant mastic to outer female groove to length equivalent to vertical joint flashing width (SPA02-ENERGY-1E).

Supporting structures, if necessary, according to structural designer (SPA09-ENERGY-4E).



- 001. Sandwich panel SPA ENERGY
- 100. /EA1D__/ Door frame stud
- 162. /EA1WXBI/ Window bottom flashing Invisible
- 163. /EA1WEI/ Window flashing Invisible
- 191. Cover flashing, t = 0.6 mm, according to project
- 232. Flashing fastener, without washer
- 234. Flat head flashing fastener
- 300. /EA3SWE54318/ Expandable sealing (plastic surface towards the inside)

- Ruukki's delivery

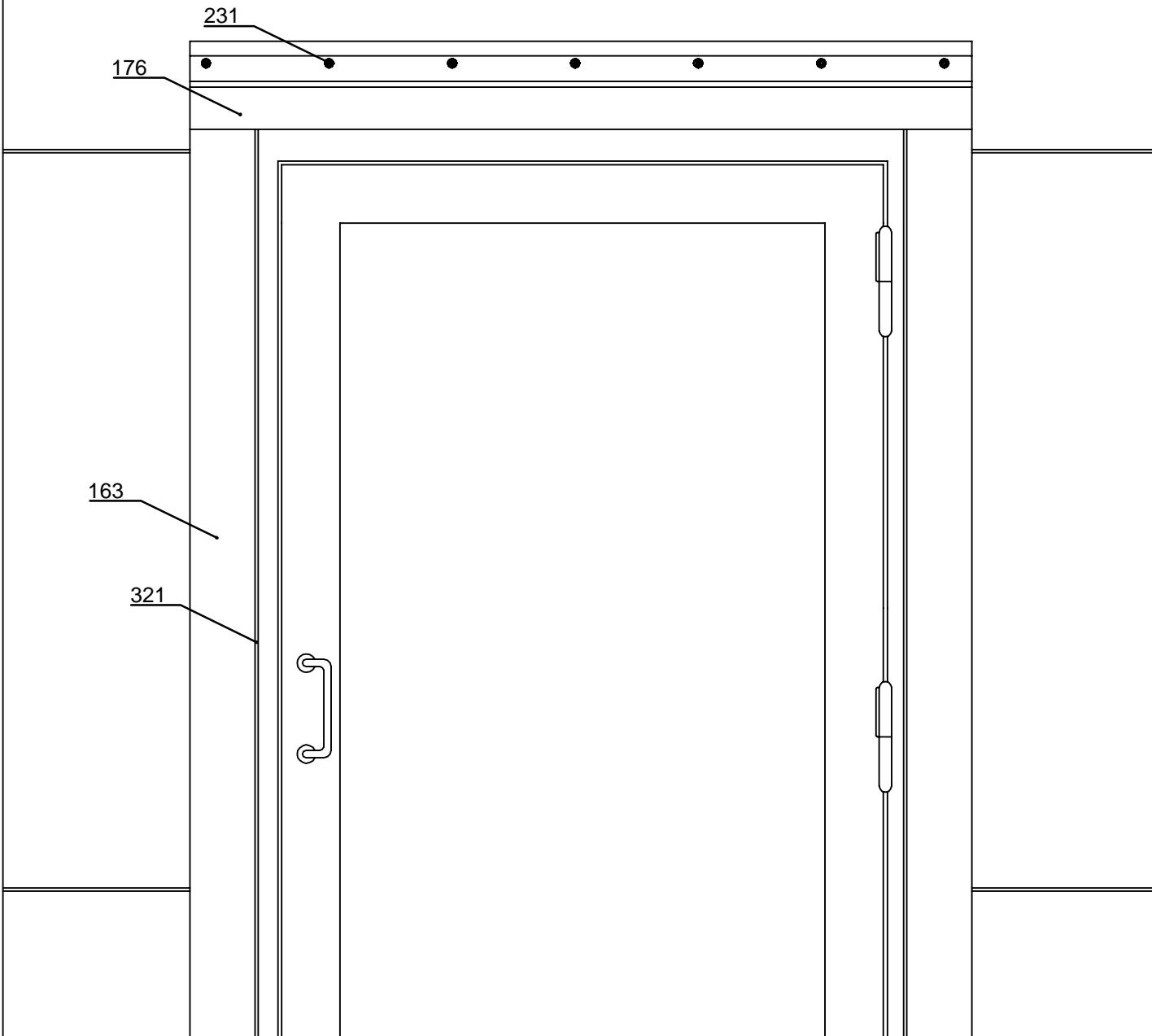
- 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- 310. Mineral wool
- 312. /EAWS__/ Mineral wool
- 321. Ruukki sealant mastic
- 325. Ruukki sealant mastic during installation to outer- and inner groove
- 332. PU-foam

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Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
Door
Invisible flashing

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-32E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.



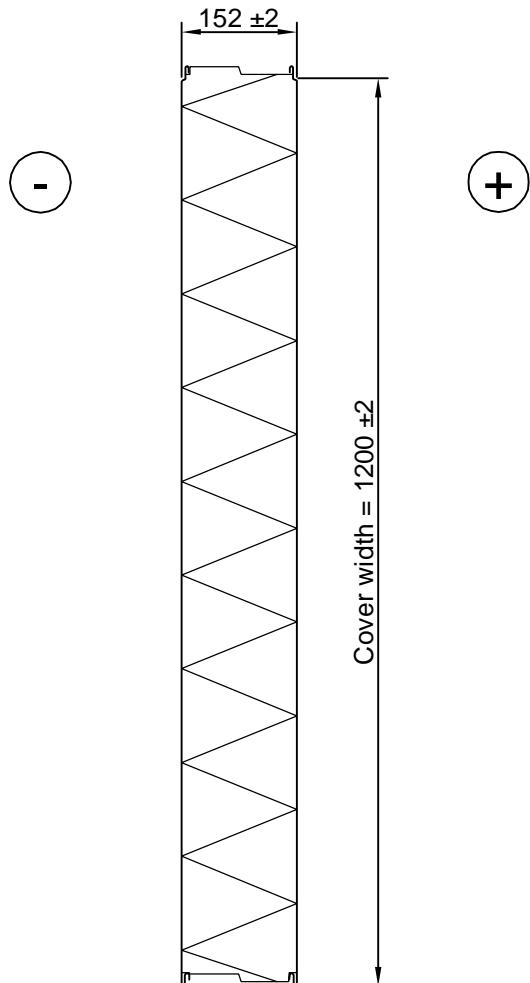
- 163. /EA1WEI/ Window flashing Invisible
- 176. Drip flashing, $t = 0.6$ mm, according to project
- 231. Flashing fastener, washer with sealing
- 321. Ruukki elastic mastic
- Ruukki's delivery

RUUKKI

Contents of drawing

Sandwich panel SPA150 ENERGY

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

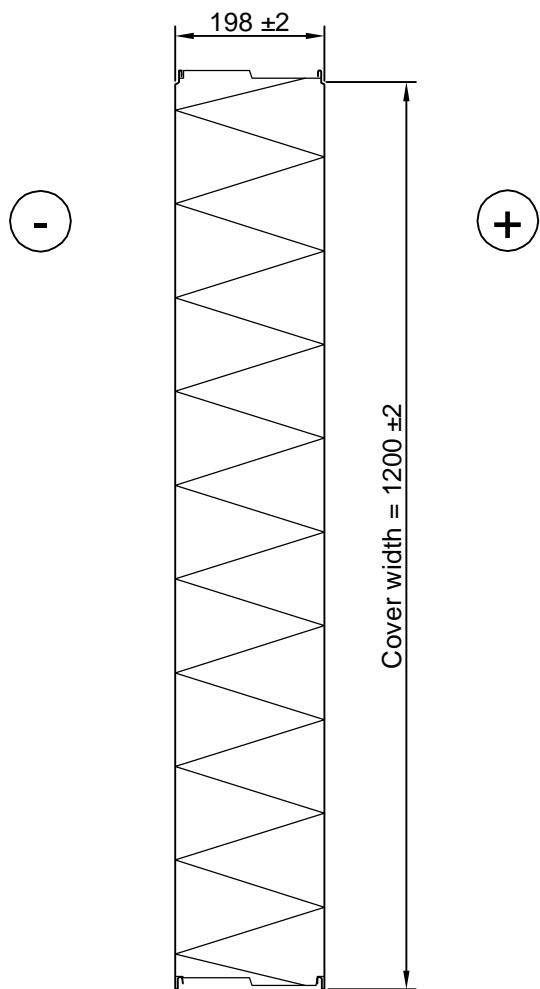


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Contents of drawing

Sandwich panel SPA200 ENERGY

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

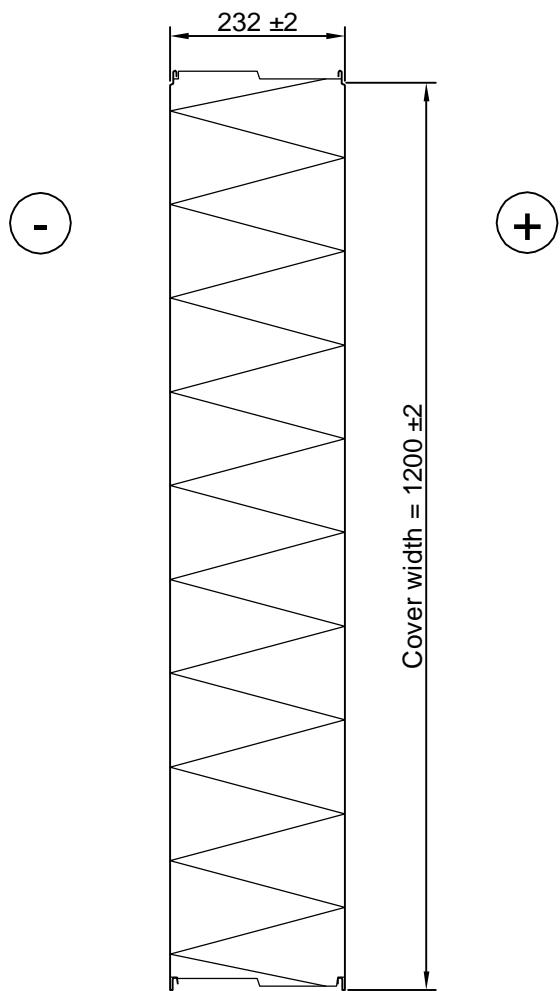


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Contents of drawing

Sandwich panel SPA230 ENERGY

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

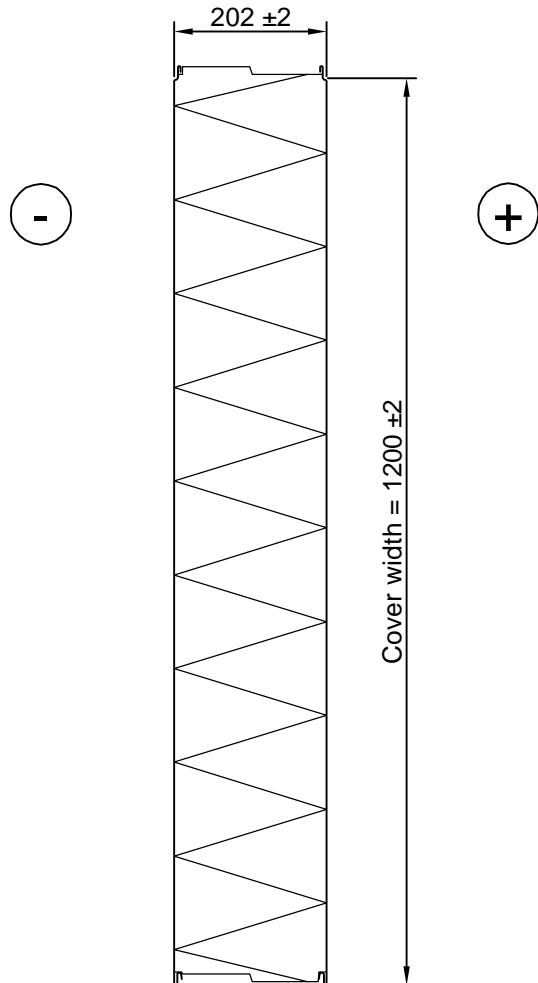


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Contents of drawing

Sandwich panel SPA200+ ENERGY

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

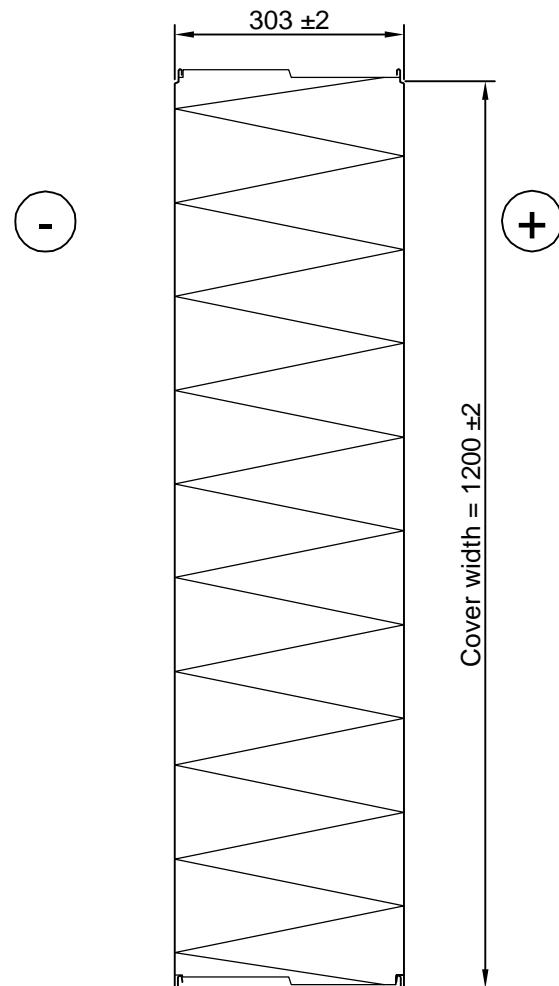


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Contents of drawing

Sandwich panel SPA300 ENERGY

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.



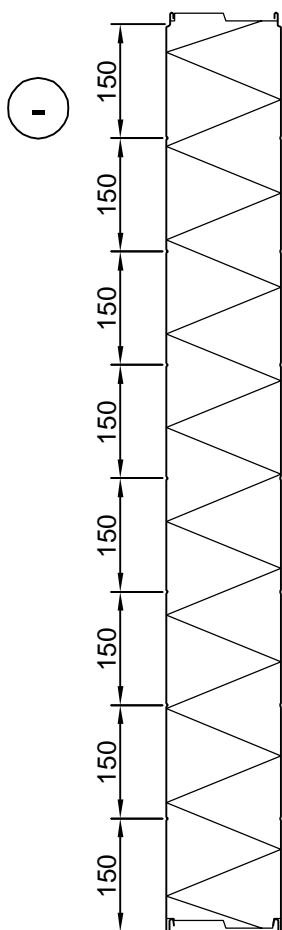


Contents of drawing

**Sandwich panel SPA
Rib R150 surface profiling**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA11-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

Available for external and internal facings.



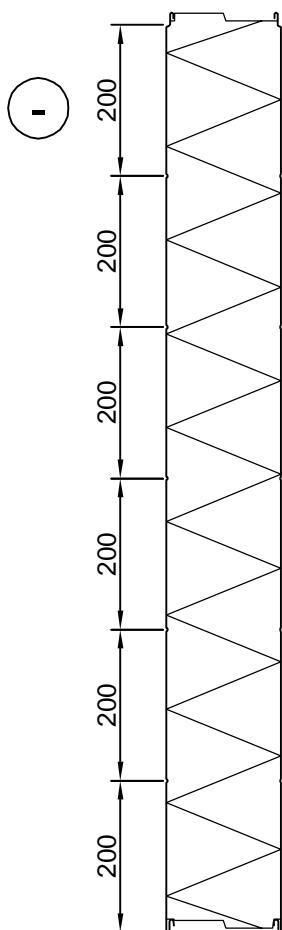
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Contents of drawing

**Sandwich panel SPA
Rib R200 surface profiling**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA11-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

Available for external and internal facings.



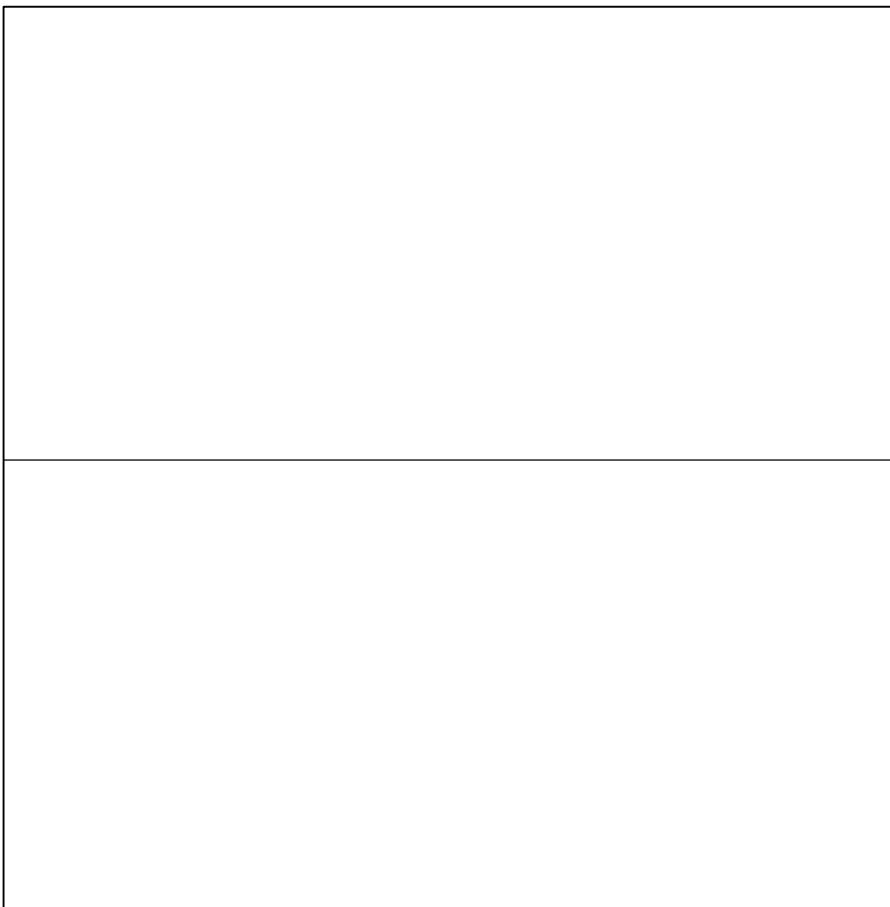
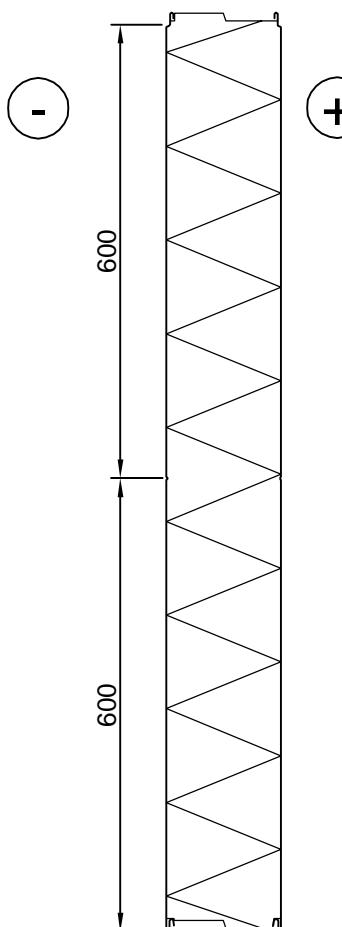
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Contents of drawing

**Sandwich panel SPA
Rib R600 surface profiling**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA11-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

Available for external and internal facings.



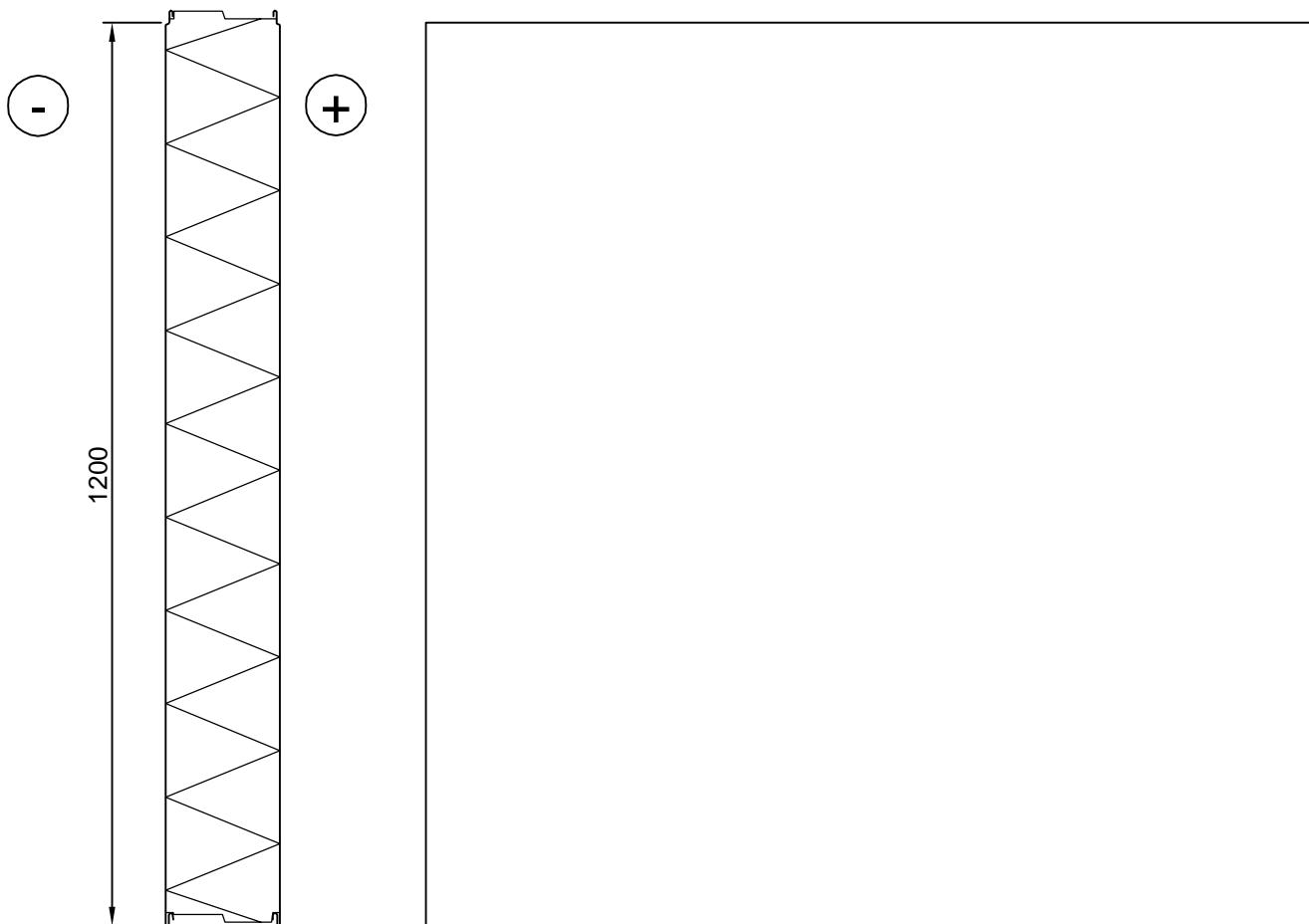


Contents of drawing

Sandwich panel SPA
Smooth F surface (no profiling)

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA11-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building	File nr.	

Available for external and internal facings.



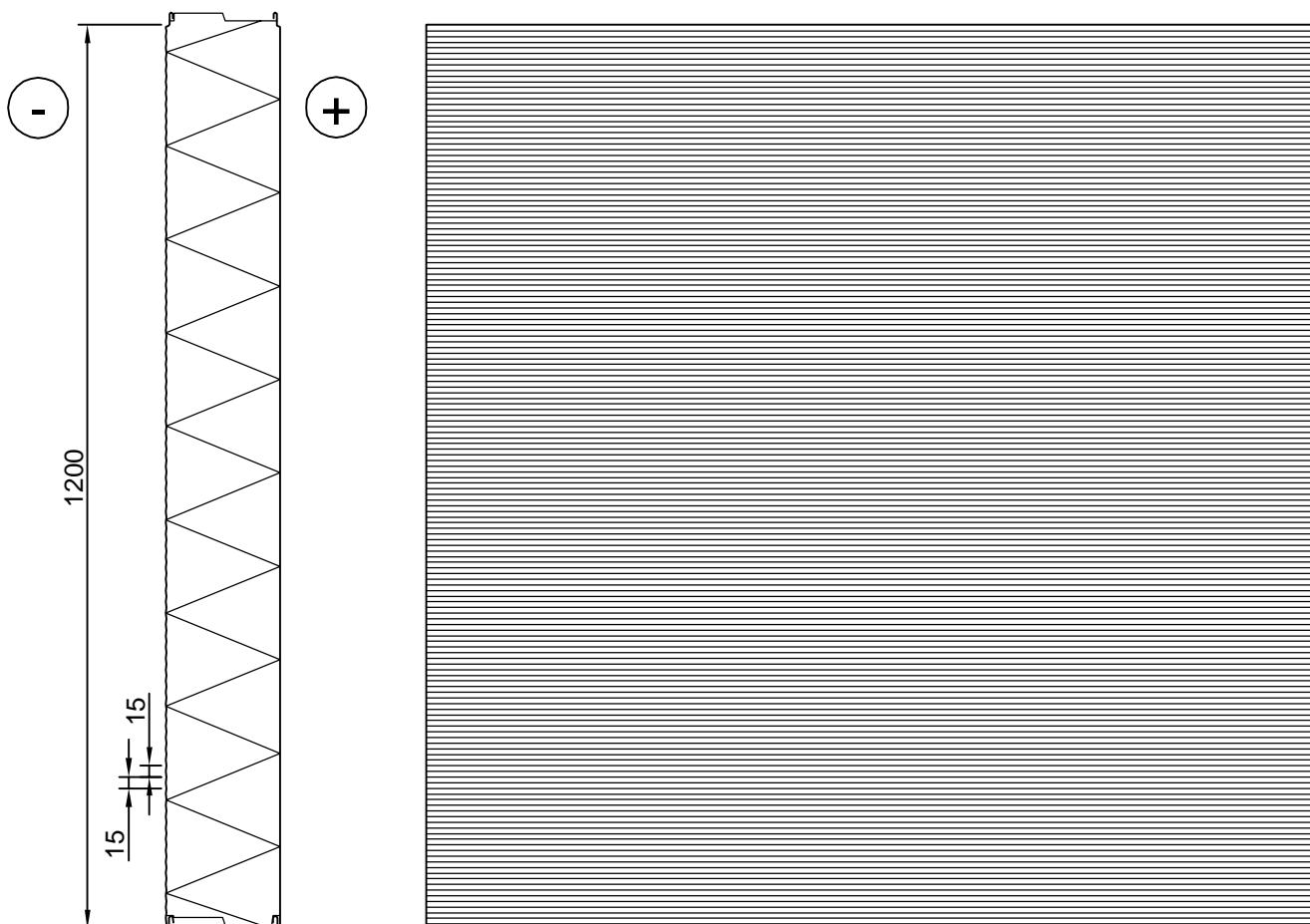
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Contents of drawing

**Sandwich panel SPA
M15 (Micro) surface profiling**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA11-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

Available for external and internal facings.



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Contents of drawing

**Sandwich panel SPA
L50 (Linear) surface profiling**

Date 01.10.2025	Rev. date	Work nr.	Drawing nr. SPA11-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

Available for external and internal facings.

