



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-5E-EN		Vertical joint, horizontal inst., laminated timber 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-32E-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
 Ruukki Construction Oy Panuntie 11 00620 HELSINKI FINLAND tel. +358 (0) 20 59 150 www.ruukki.com			Sandwich panel SPA ENERGY PRINCIPLE DETAIL DRAWINGS External walls	
Date	25.05.2023	Designer	Work nr.	Work nr.
Drawn by	Ruukki	Checked	Drw. nr.	Rev.

Drawing nr.	Contents of drawing
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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
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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		
Building, Name and address			Nr.		
 Ruukki Construction Oy Panuntie 11 00620 HELSINKI FINLAND tel. +358 (0) 20 59 150 www.ruukki.com			Contents of drawing		Scale
			Sandwich panel SPA ENERGY PRINCIPLE DETAIL DRAWINGS External walls		
Date	Designer	Work nr.	Work nr.	Drw. nr.	Rev.
25.05.2023					
Drawn by	Checked				
Ruukki					

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		
Building, Name and address			Nr.		
 <p>Ruukki Construction Oy Panuntie 11 00620 HELSINKI FINLAND</p> <p>tel. +358 (0) 20 59 150 www.ruukki.com</p>			Contents of drawing		Scale
			<p>Sandwich panel SPA ENERGY PRINCIPLE DETAIL DRAWINGS External walls</p>		
Date	Designer	Work nr.	Work nr.	Drw. nr.	Rev.
25.05.2023					
Drawn by	Checked				
Ruukki					



Contents of drawing

Sandwich panel SPA ENERGY
Accessory numbers in details

Date 25.05.2023	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 element

FLASHINGS

- 100. Standard purlins and starter tracks
- 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

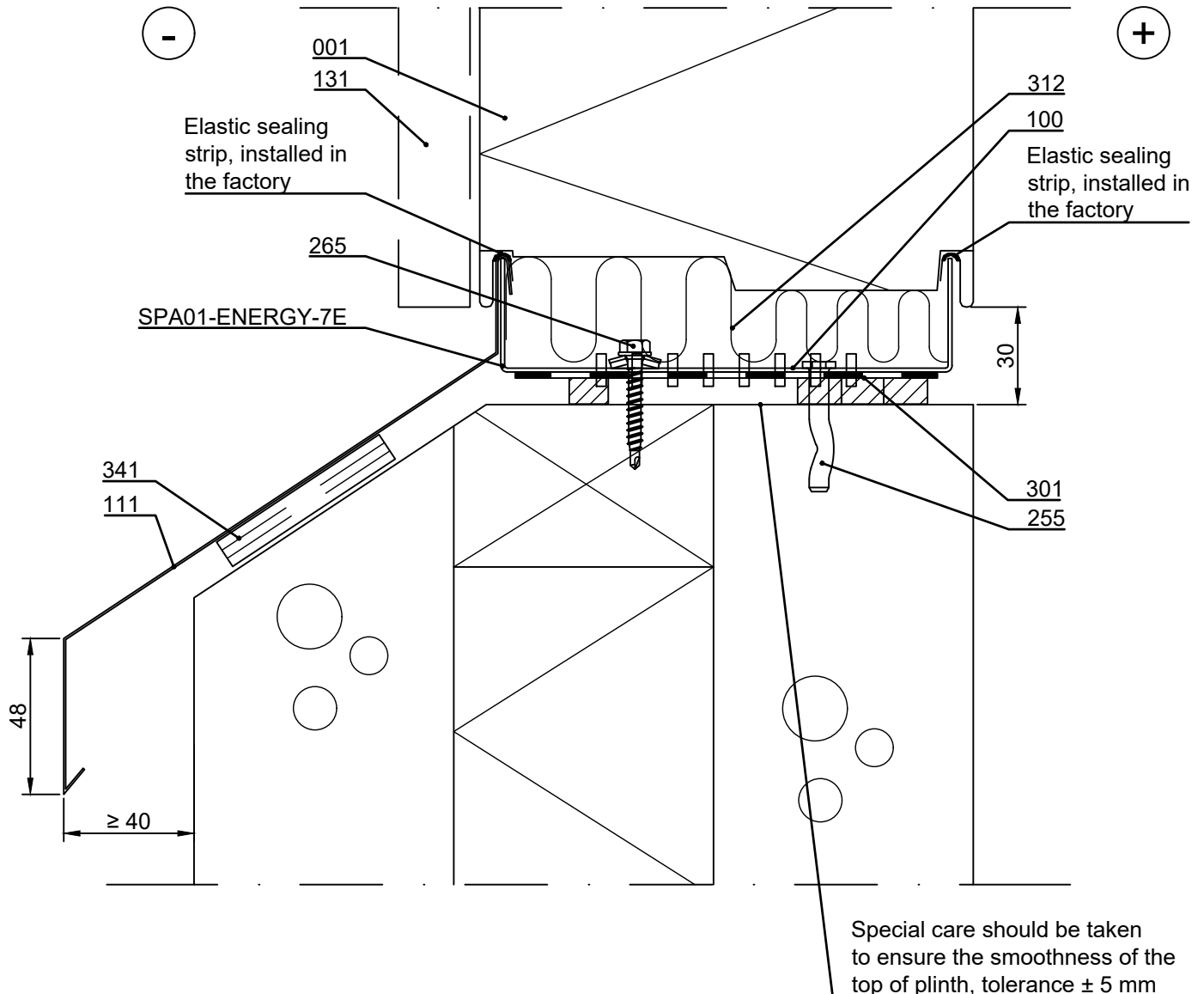
- 265. Fastener screw to wood, washer with sealing

- 271. Rivet

SEALANTS AND INSULATIONS

- 300. Expandable sealing band
- 301. Plinth sealing expanding
- 302. Sealing band for flashings
- 303. Sealing band for frame
- 305. Joint sealing
- 306. Joint sealing
- 307. Joint sealing
- 308. Joint sealing
- 309. Joint sealing
- 310. Mineral- / stonewool
- 311. Mineral wool
- 312. Mineral wool band
- 313. Mineral wool band
- 321. Ruukki silicone
- 323. Ruukki silicone
- 325. Ruukki silicone during installation
- 327. Elastic polyurethane, eg. Illbruck FM330 tai FM637
- 328. Ruukki silicone
- 330. PU insulation
- 331. EPDM sealing
- 332. PU foam
- 341. Plywood
- 342. L-profile

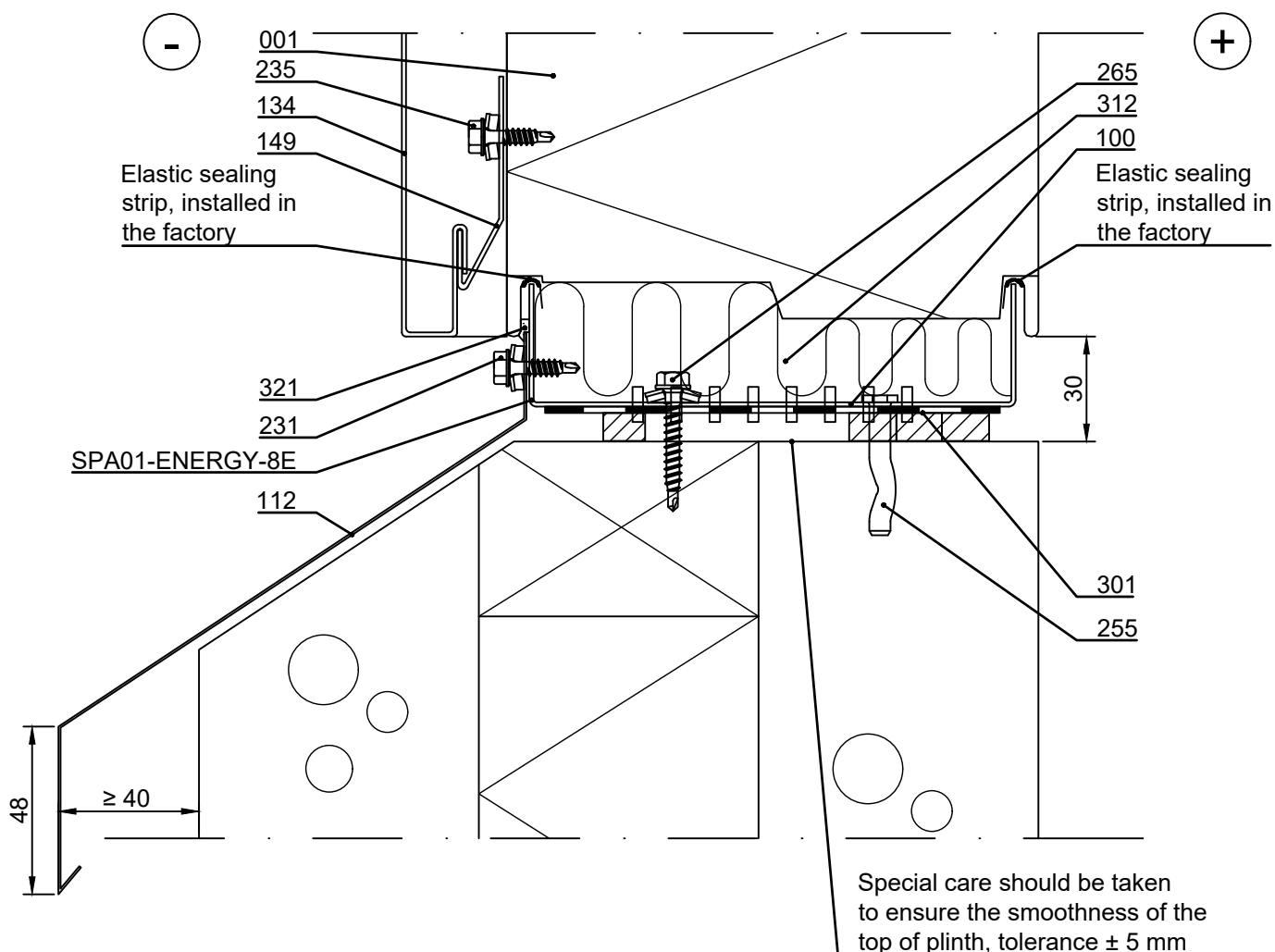
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U___/ Starter track
- ☐ 111. /EA1P3-___/ Cill flashing (installed simultaneously with elements)
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS___/ Mineral wool band
- ☐ 341. Plywood, if necessary

☒ Ruukki's delivery

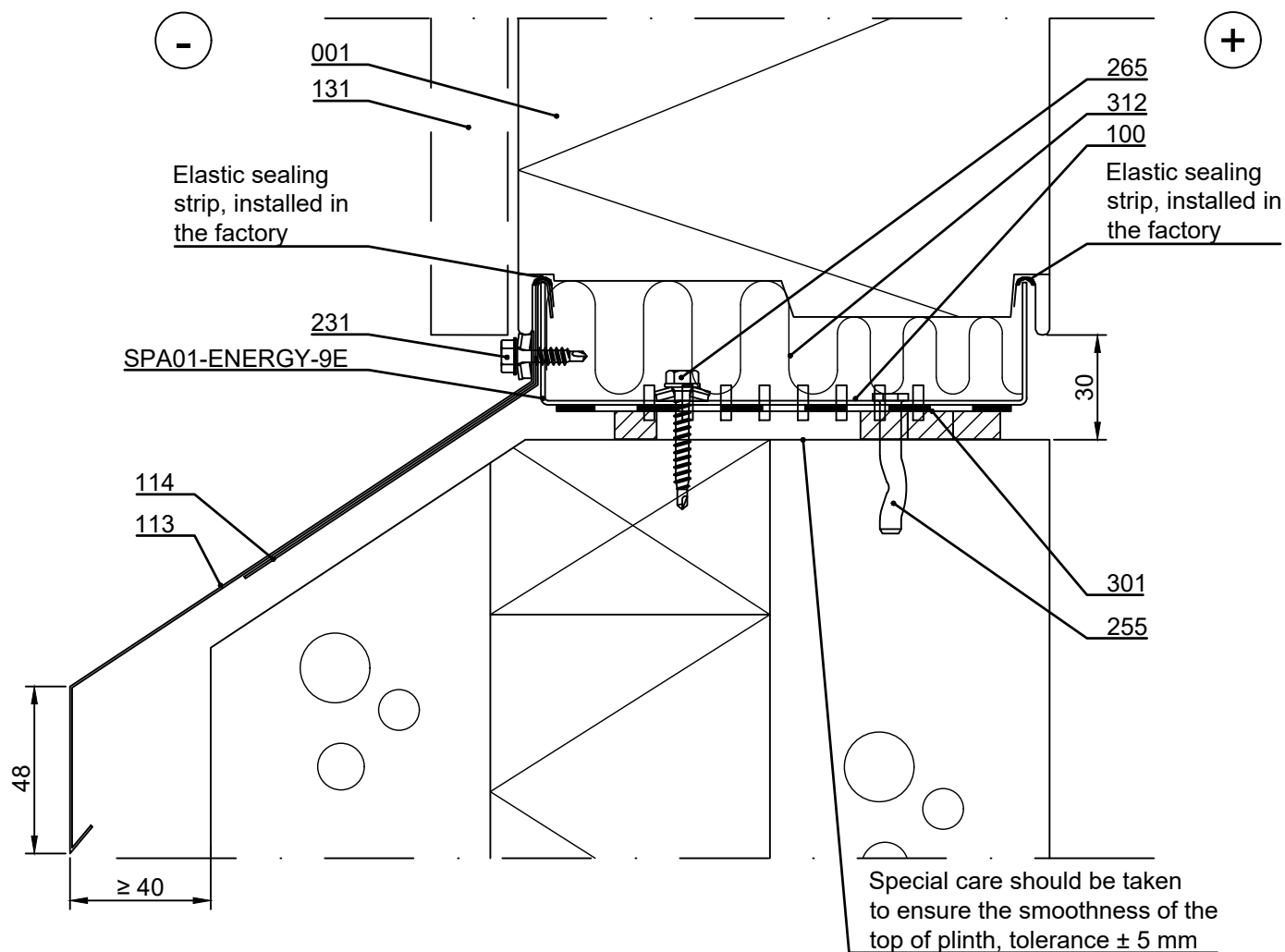
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U___/ Starter track
- ☐ 112. /EA1P1-___/ Cill flashing (can be installed after element 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
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS___/ Mineral wool band
- ☐ 321. Ruukki silicone

☒ Ruukki's delivery

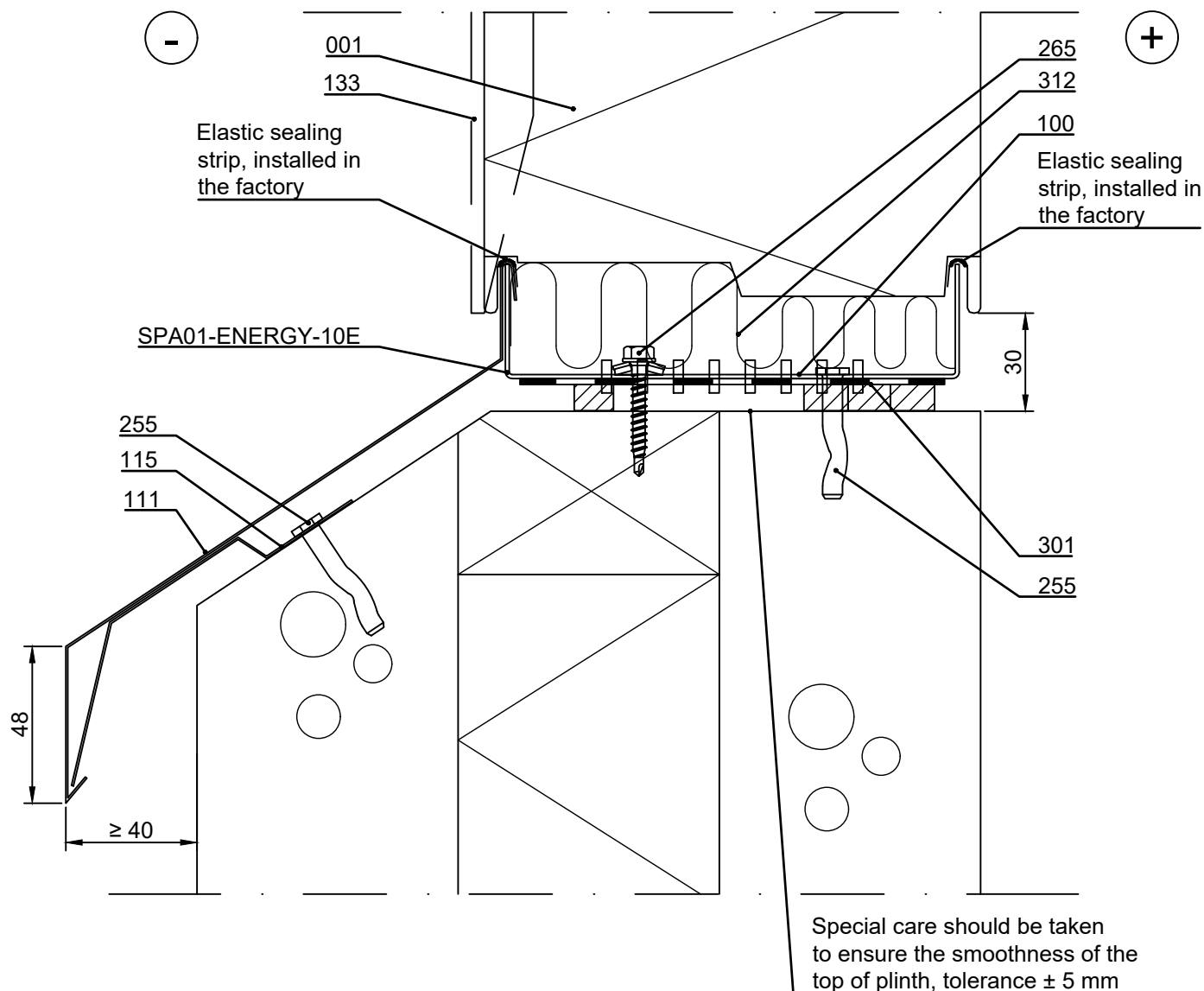
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



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

☒ Ruukki's delivery

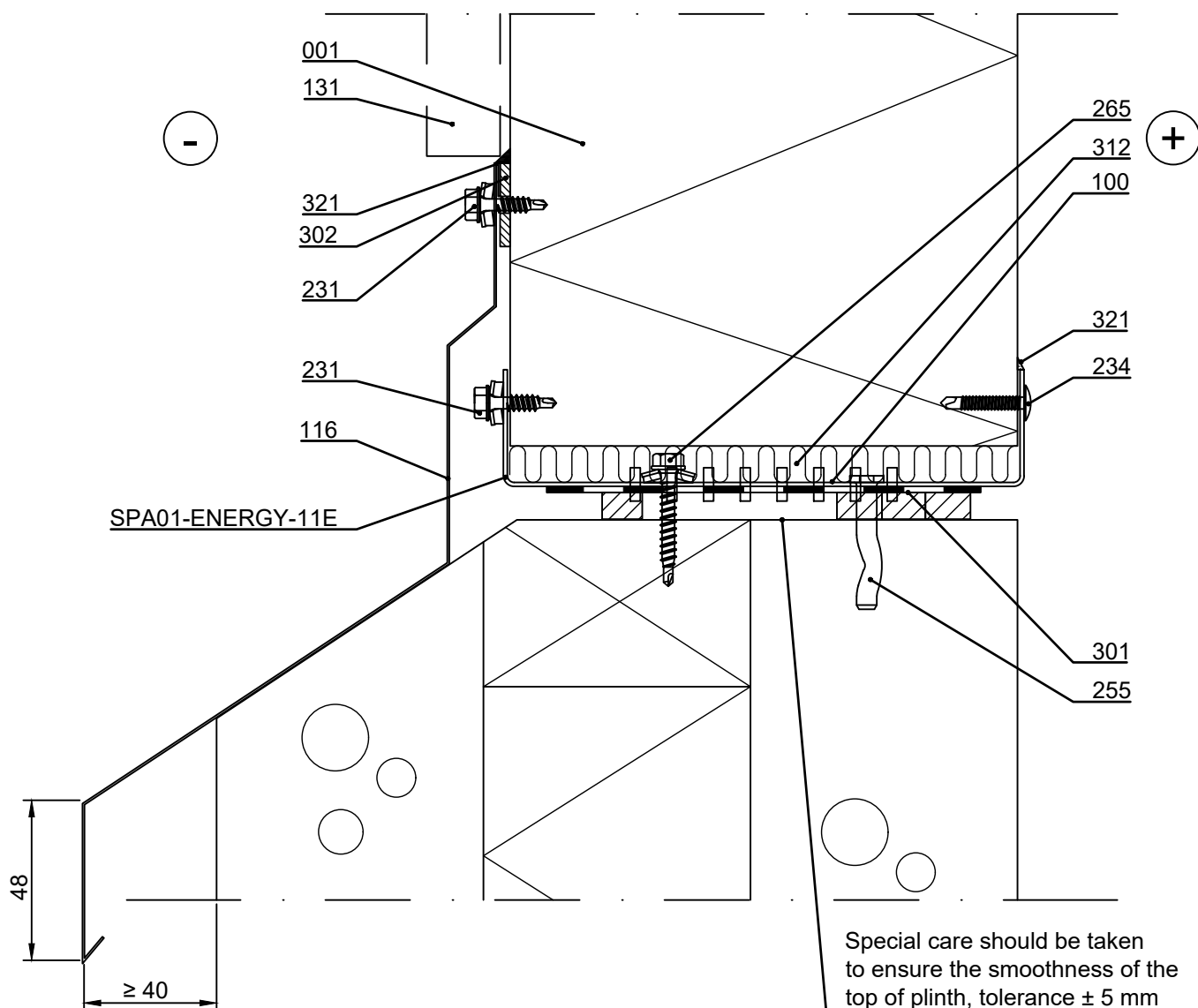
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U___/ Starter track
- ☐ 111. /EA1P3-___/ Cill flashing (installed simultaneously with elements)
- ☐ 115. Support flashing, L200 k1000, according to project (installed simultaneously with elements)
- ☐ 133. /EA1JV9/ Vertical joint flashing
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS___/ Mineral wool band

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	



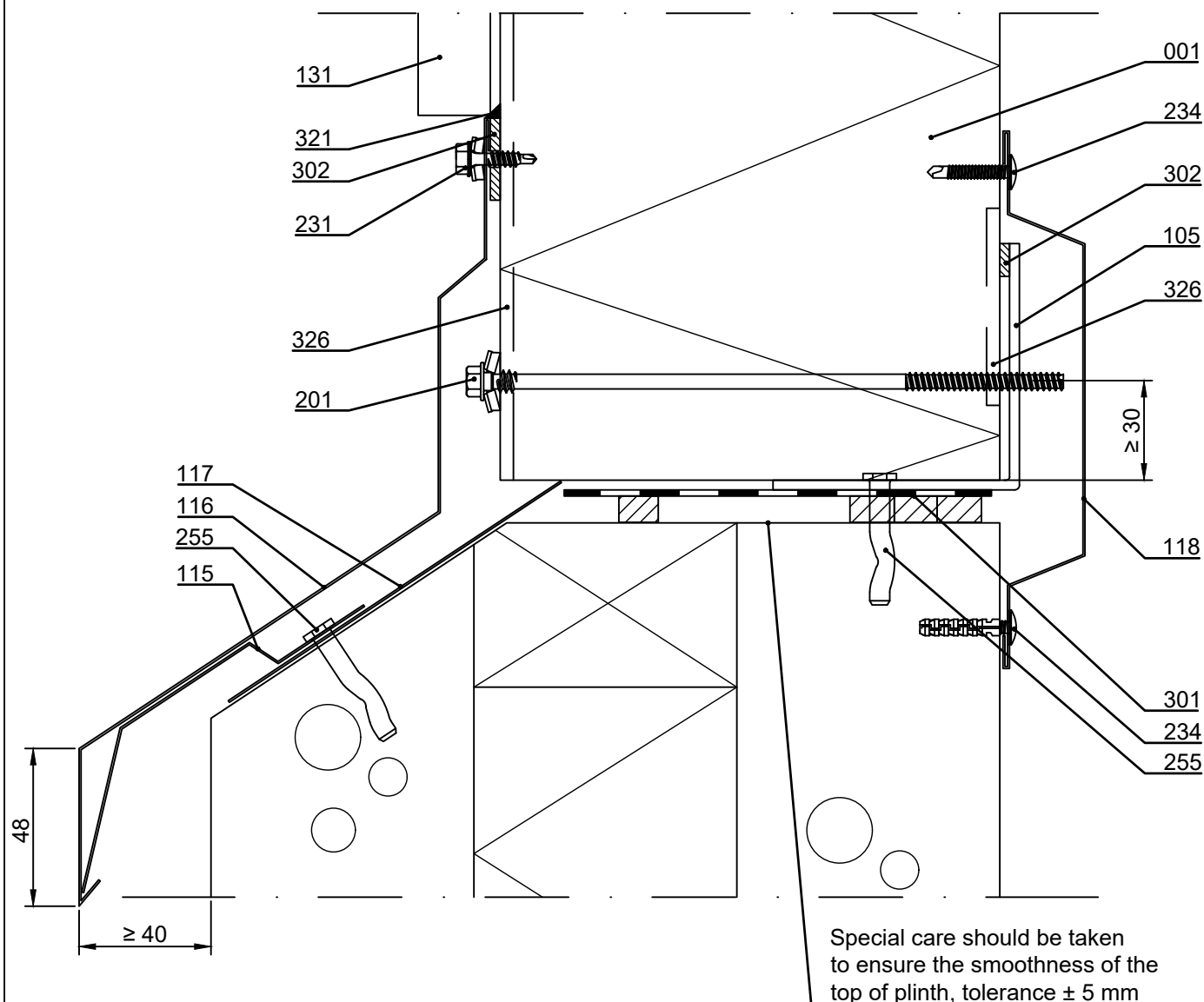
- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1W___/ Purlin
- ☐ 116. /EA1P5-___/ Cill flashing (can be installed after element installation)
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 234. Flat head flashing fastener

- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 302. /EA3SS410/ Sealing strip
- ☐ 312. /EAWS___/ Mineral wool band
- ☐ 321. Ruukki silicone

☒ Ruukki's delivery

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

Date 25.05.2023	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 elements)
- ☐ 116. /EA1P5-___/Cill flashing (can be installed after element installation)
- ☐ 117. Cover flashing, according to project (installed simultaneously with elements)
- ☐ 118. Cover flashing, according to project
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 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 silicone
- ☐ 325. Ruukki silicone during installation to outer female groove full length of element and inner female groove 60 mm from panel end

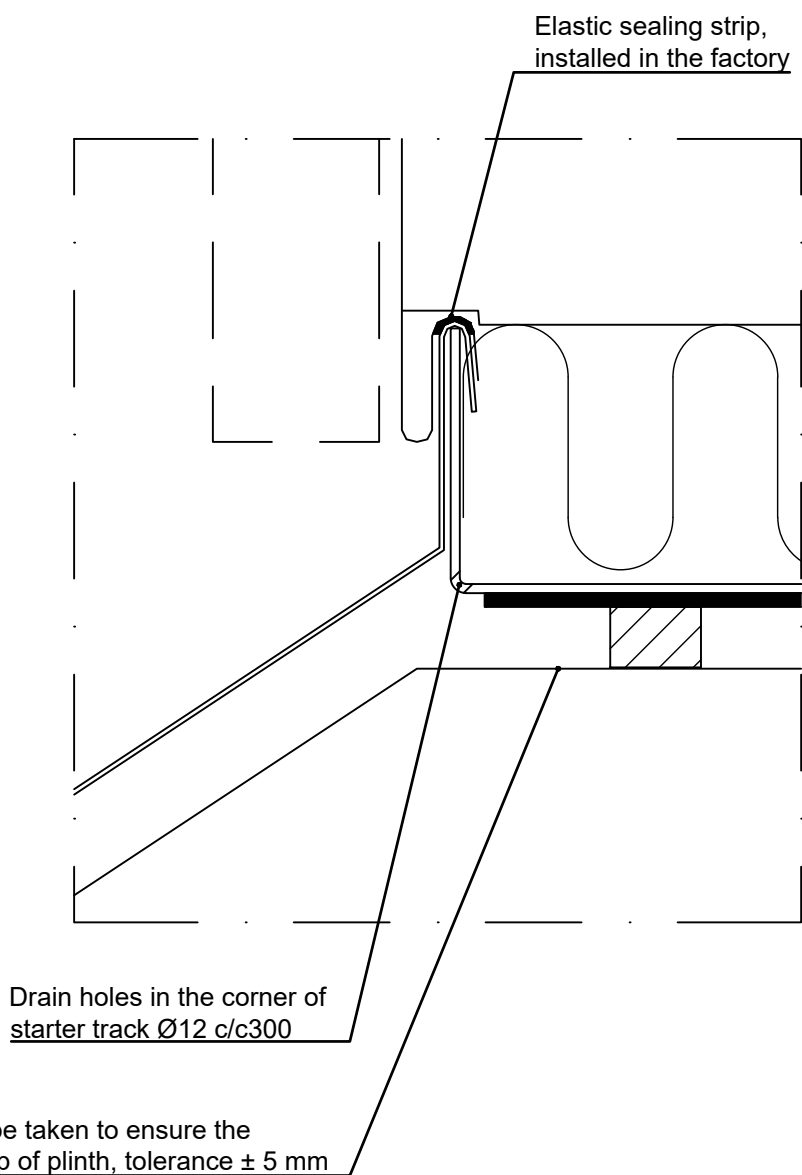
☒ Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-7E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.

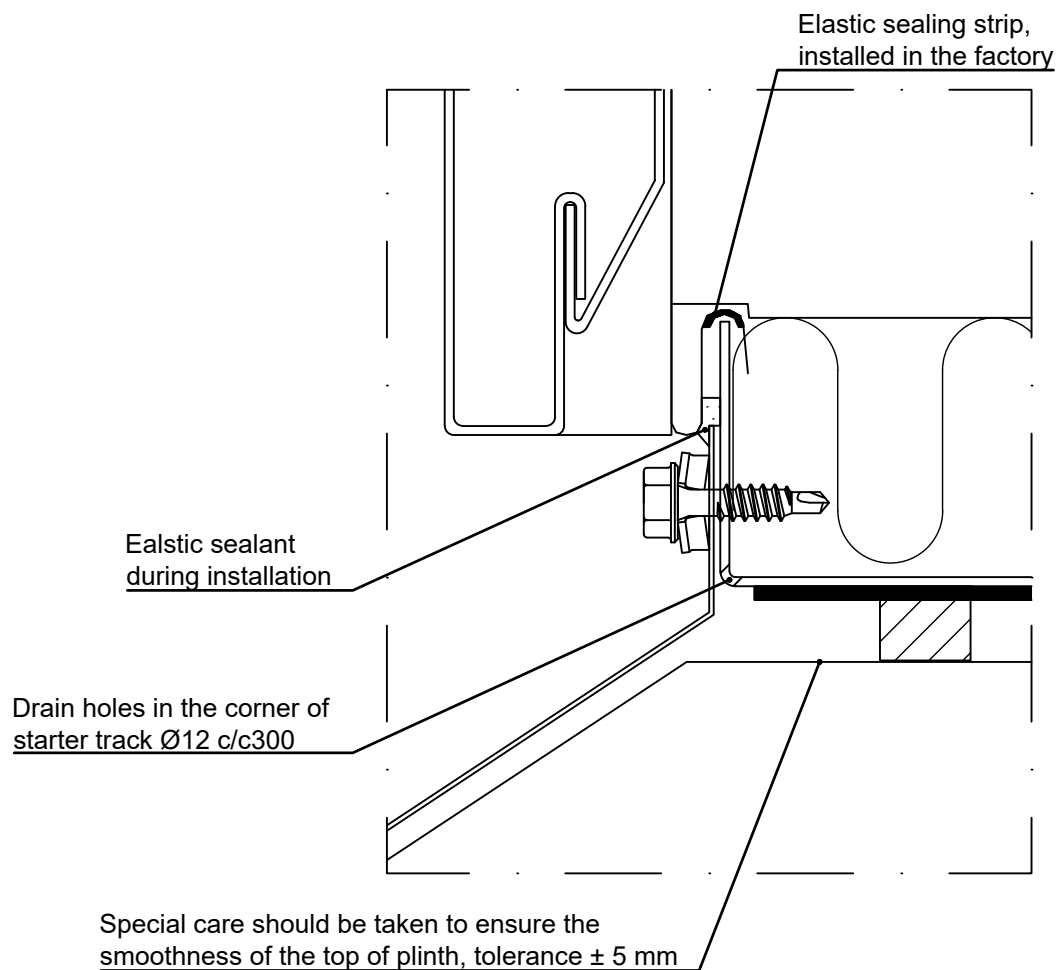




Contents of drawing

Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-8E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building	File nr.	

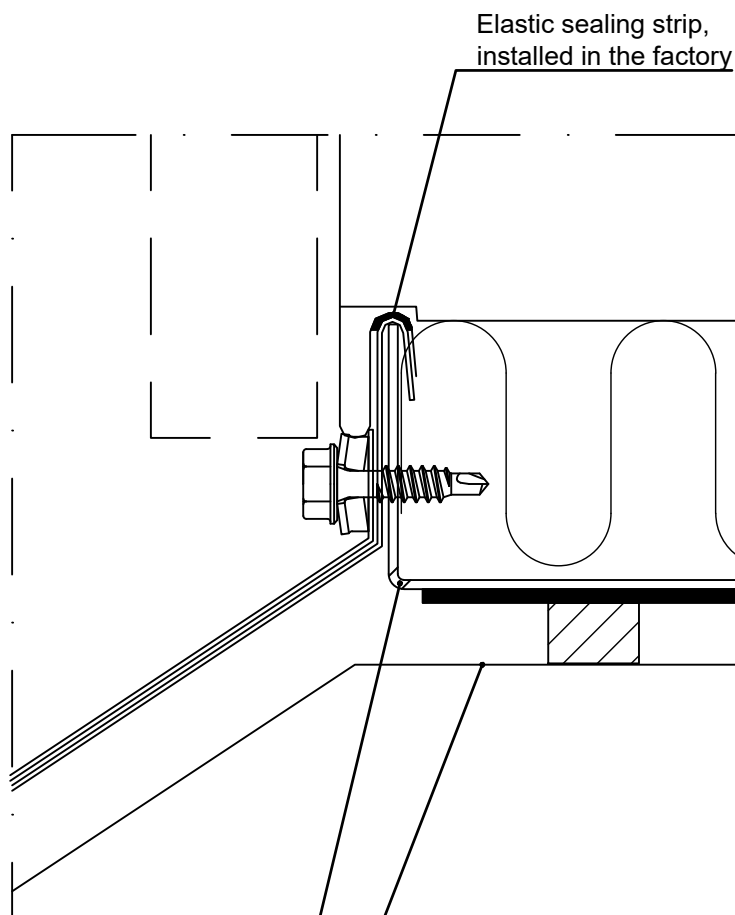




Contents of drawing

Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-9E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



Drain holes in the corner of
starter track $\varnothing 12$ c/c300

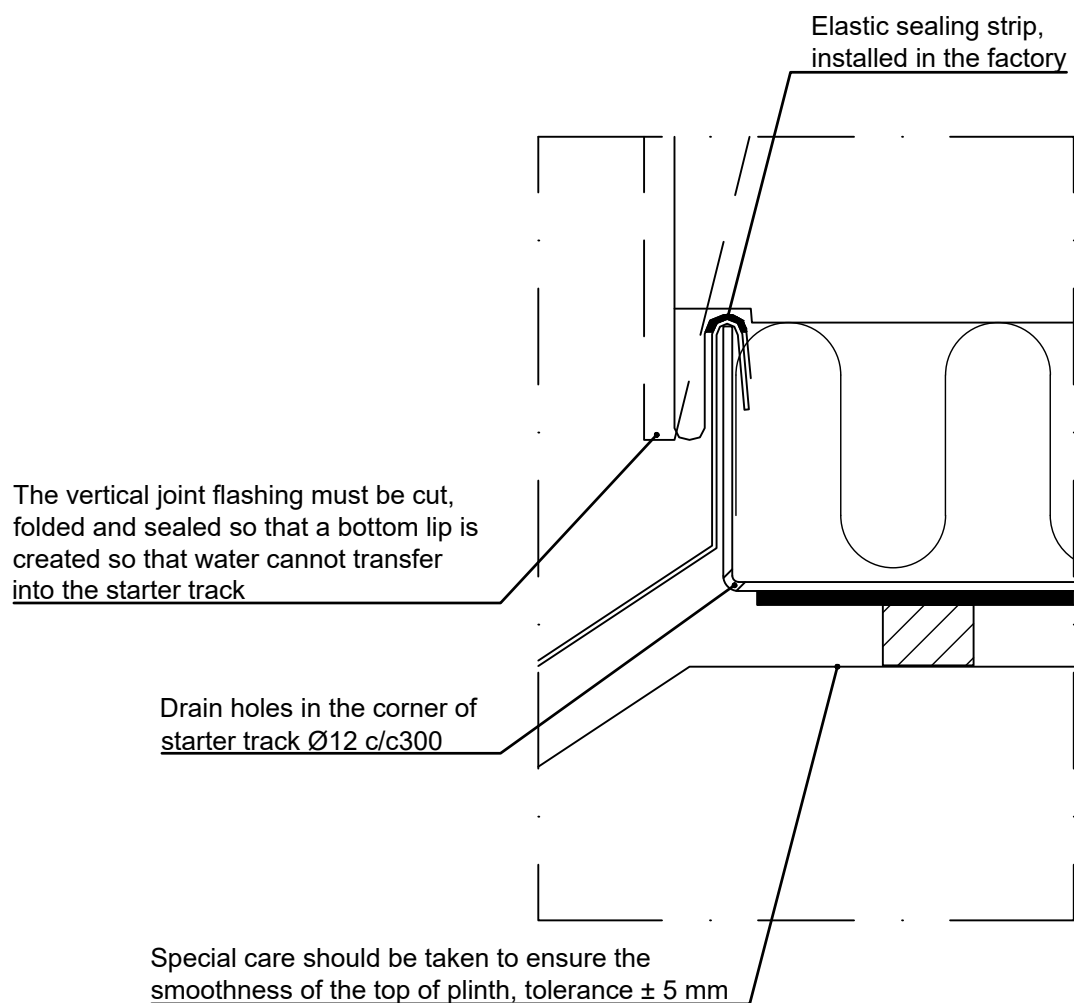
Special care should be taken to ensure the
smoothness of the top of plinth, tolerance ± 5 mm



Contents of drawing

Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-10E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



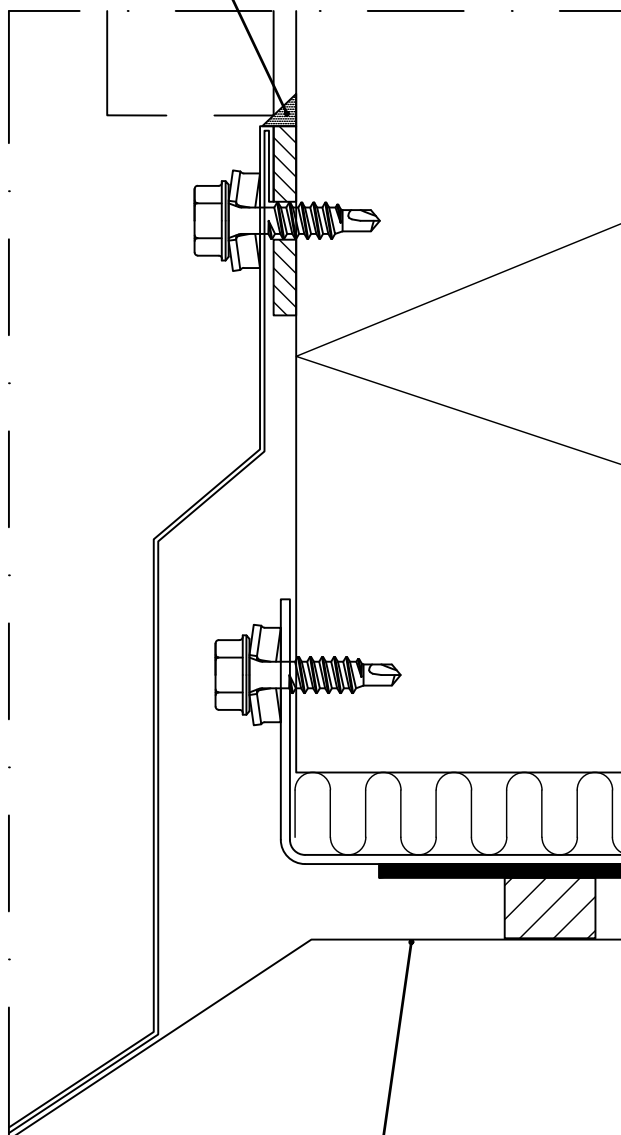


Contents of drawing

Sandwich panel SPA ENERGY, horizontal
installation
Plinth, detail

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-11E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.

Ruukki silicone
after installation



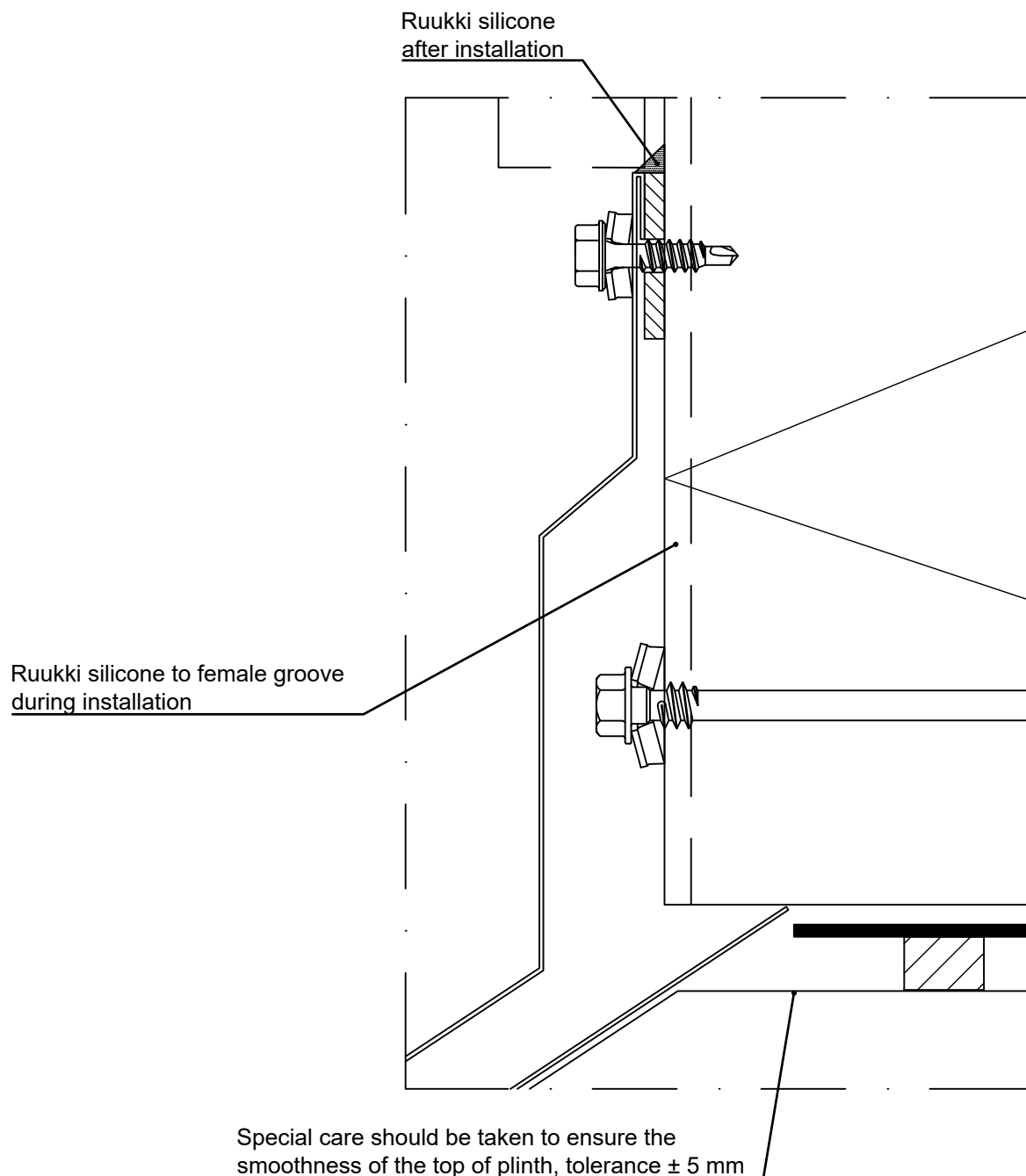
Special care should be taken to ensure the
smoothness of the top of plinth, tolerance ± 5 mm



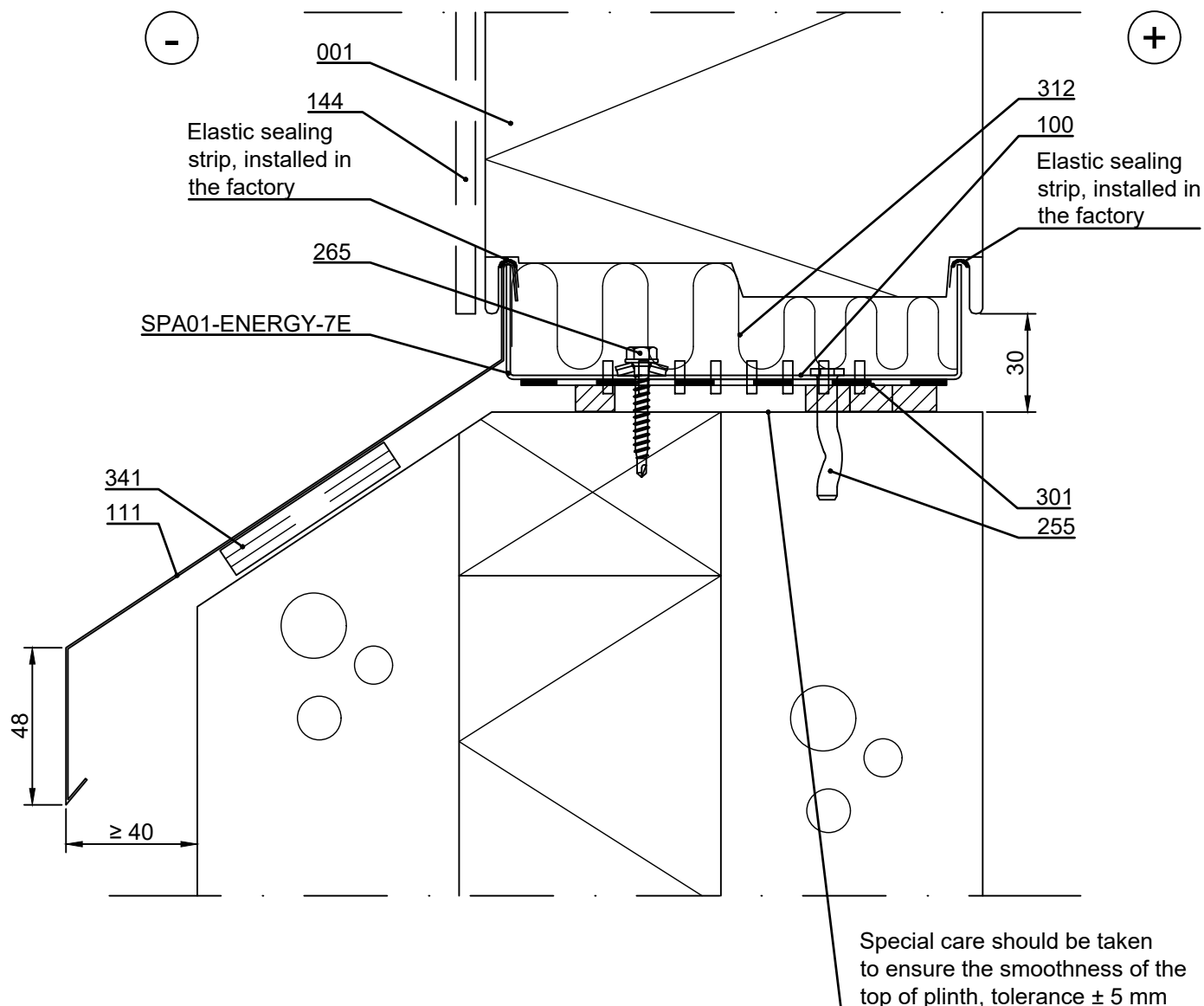
Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-12E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building	File nr.	



Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA01-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U___/ Starter track
- ☐ 111. /EA1P3-___/ Cill flashing (installed simultaneously with elements)
- ☐ 144. /EA1JVI/ Vertical joint flashing, Invisible
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS___/ Mineral wool band
- ☐ 341. Plywood, if necessary

☒ Ruukki's delivery

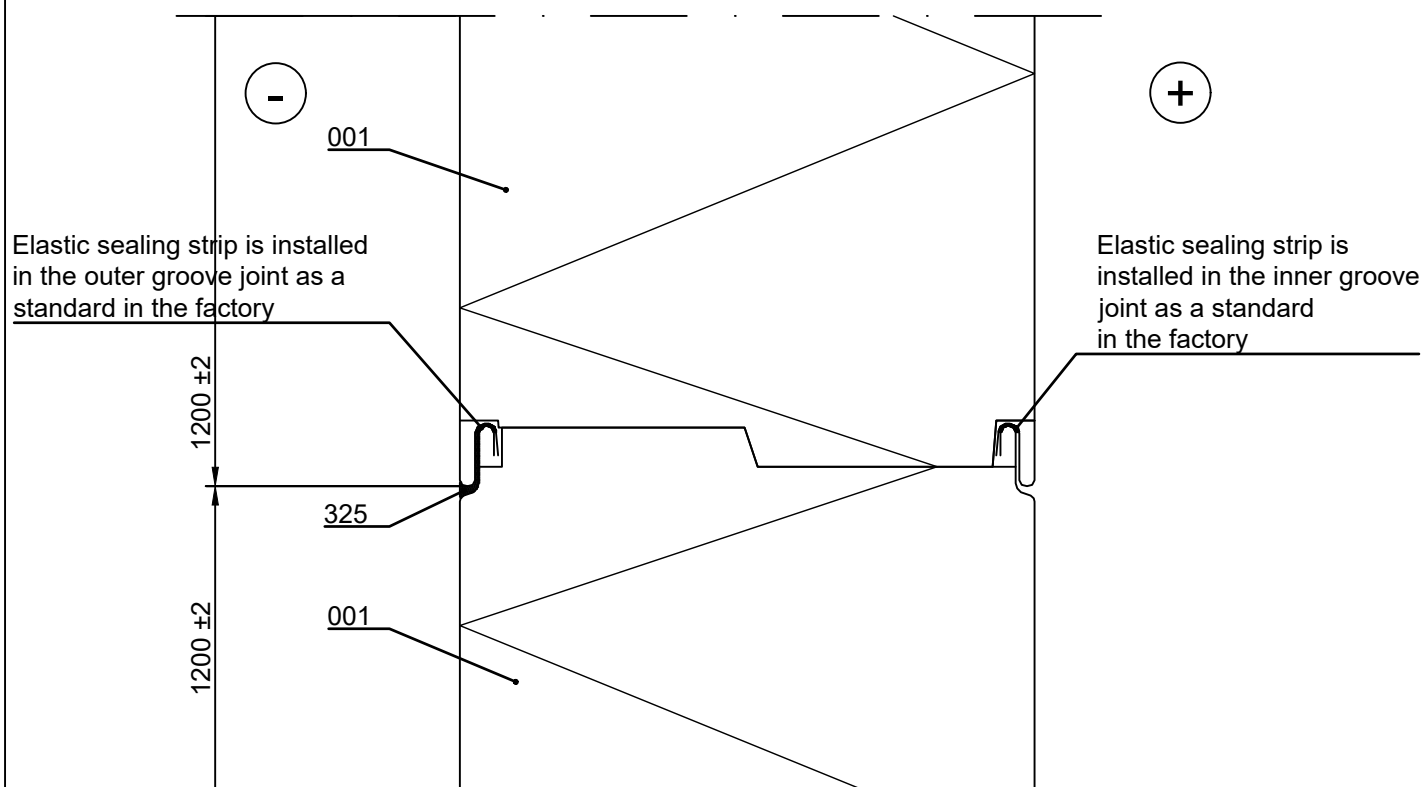


Contents of drawing

Sandwich panel SPA ENERGY, horizontal
installation

Joint between panels, vertical section

Date 25.05.2023	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 silicone
during installation to outer female groove to length equivalent to
vertical joint flashing width

☒ Ruukki's delivery

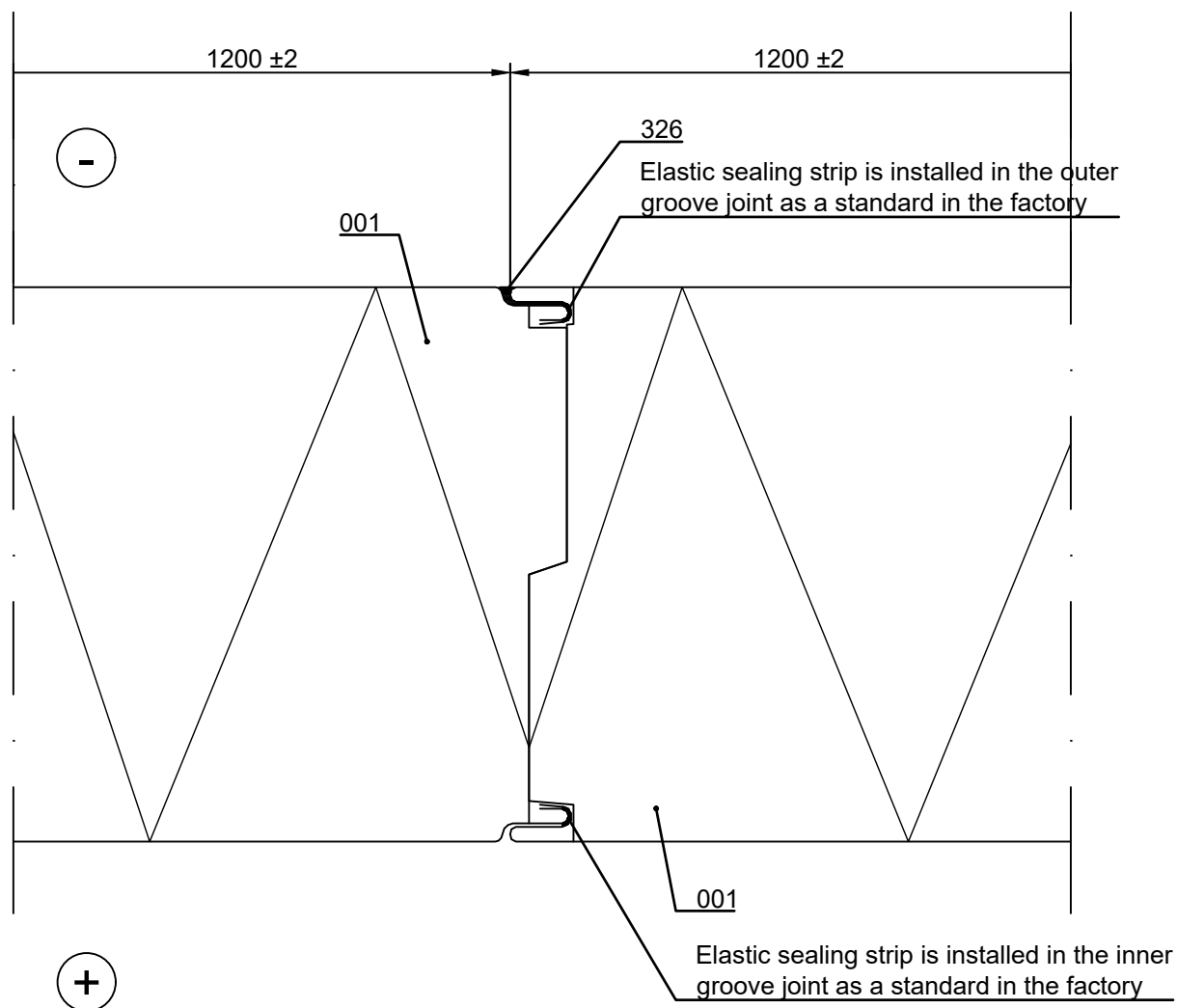
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Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

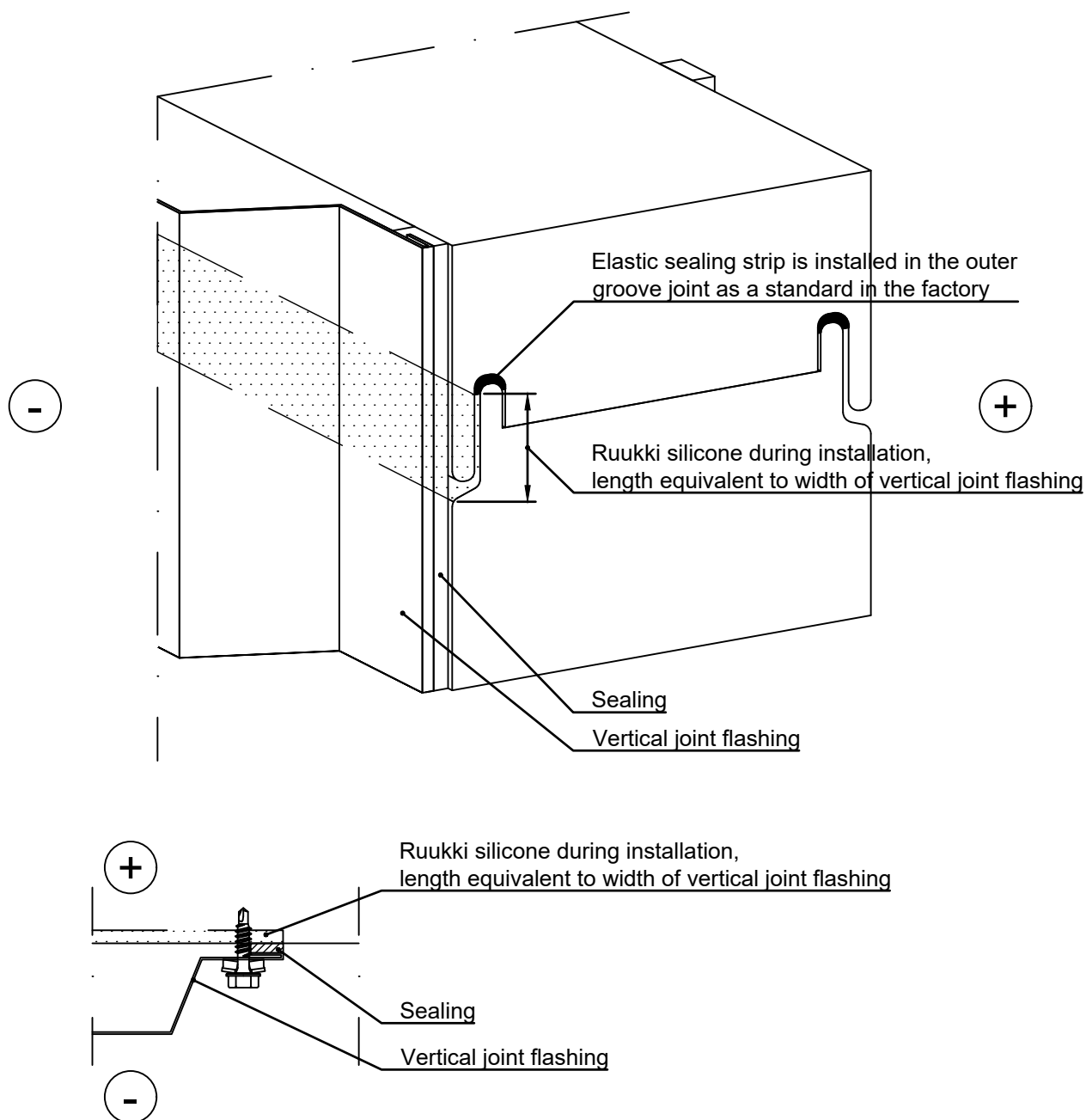


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 325. Ruukki silicone during installation to outer female groove in full length of element and inner female groove 60 mm from panel end

☒ Ruukki's delivery

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Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



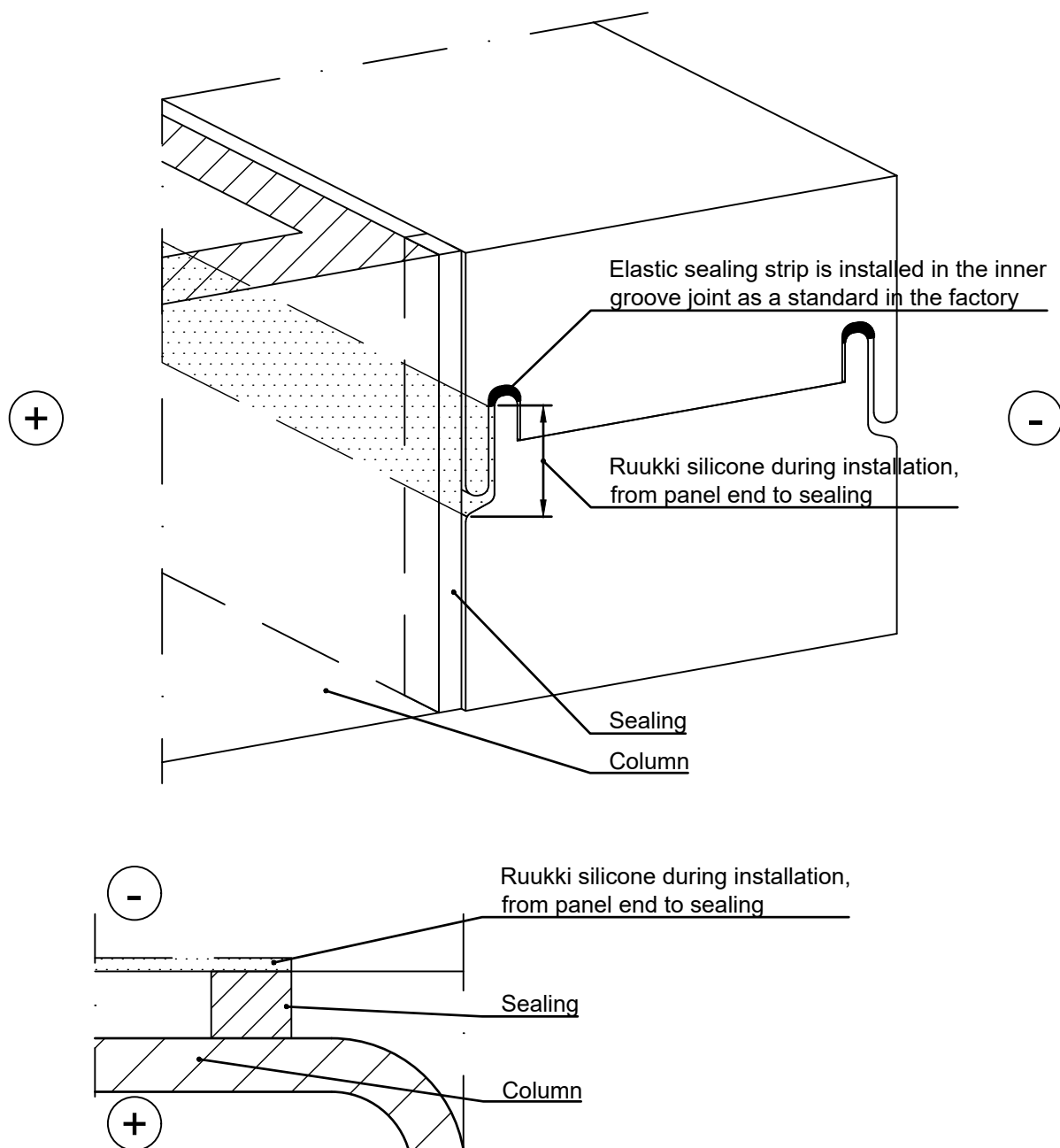
Horizontal installation:

Ruukki silicone 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 silicone, i.e. it must be applied before interlocking the joint.

Vertical installation:

Ruukki silicone 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 silicone, i.e. it must be applied before interlocking the joint.

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA02-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:1	Building		File nr.



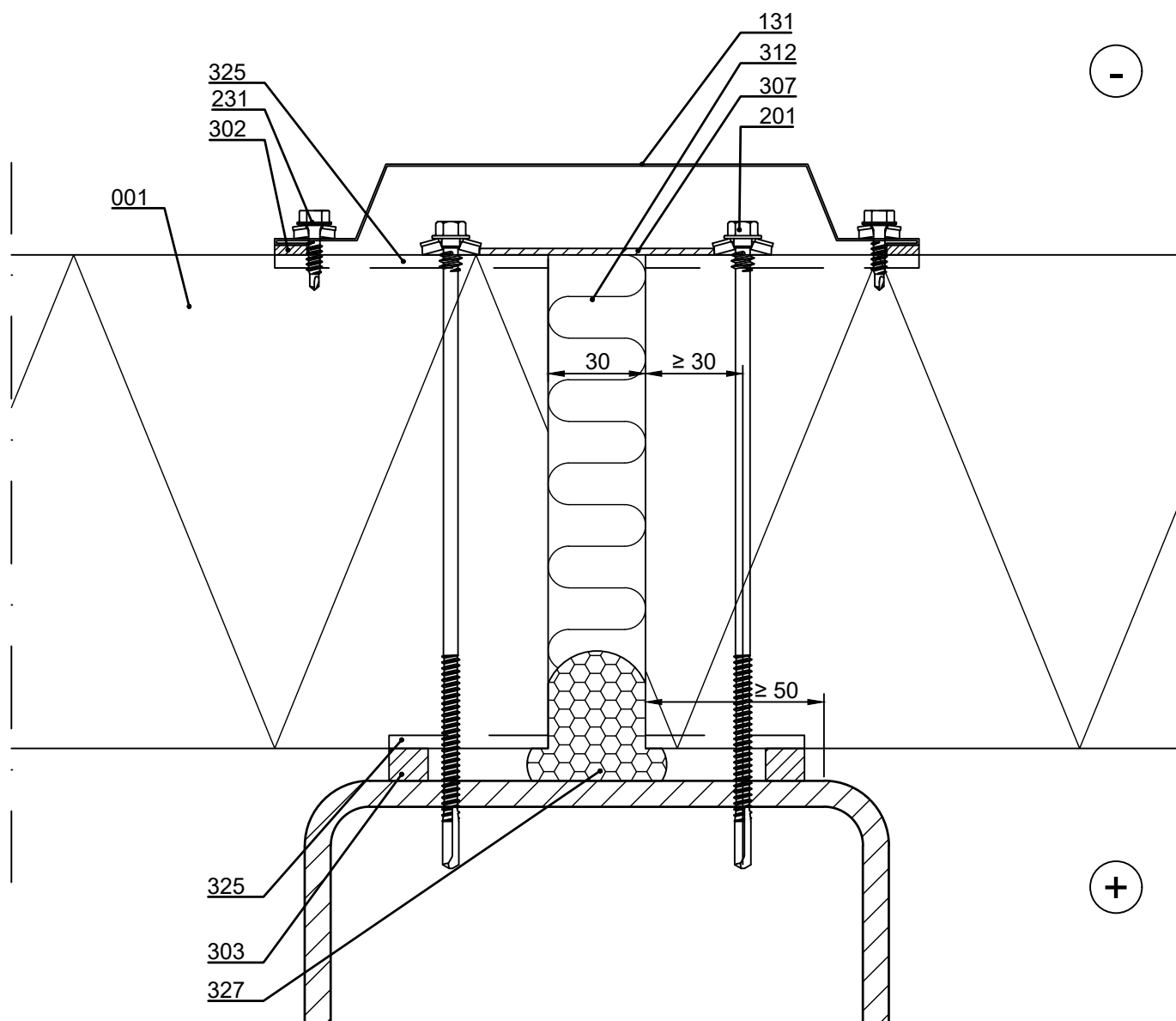
Horizontal installation:

Ruukki silicone 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 silicone, i.e. it must be applied before interlocking the joint.

Vertical installation:

Ruukki silicone 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 silicone, i.e. it must be applied before interlocking the joint.

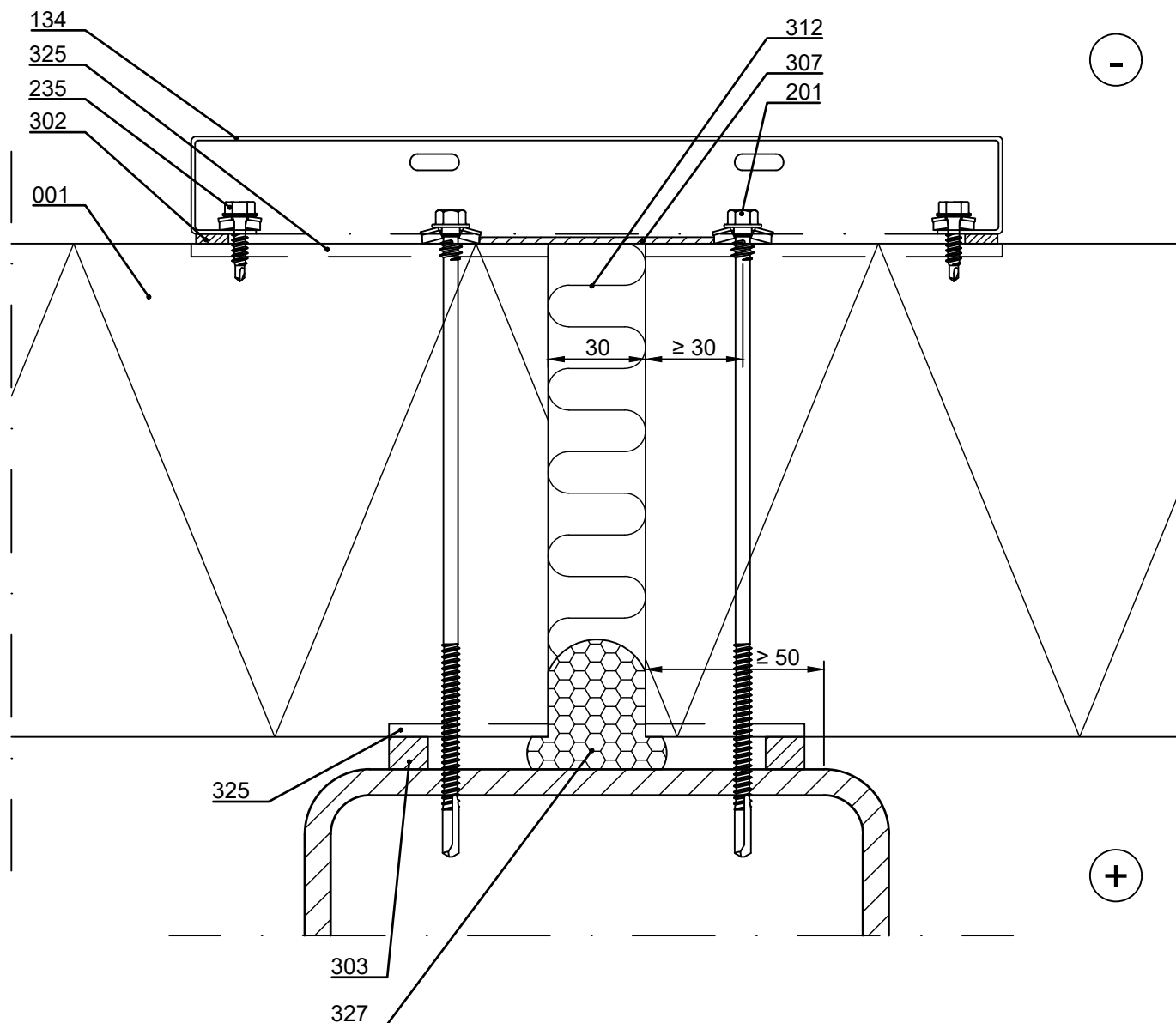
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- ☐ 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. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

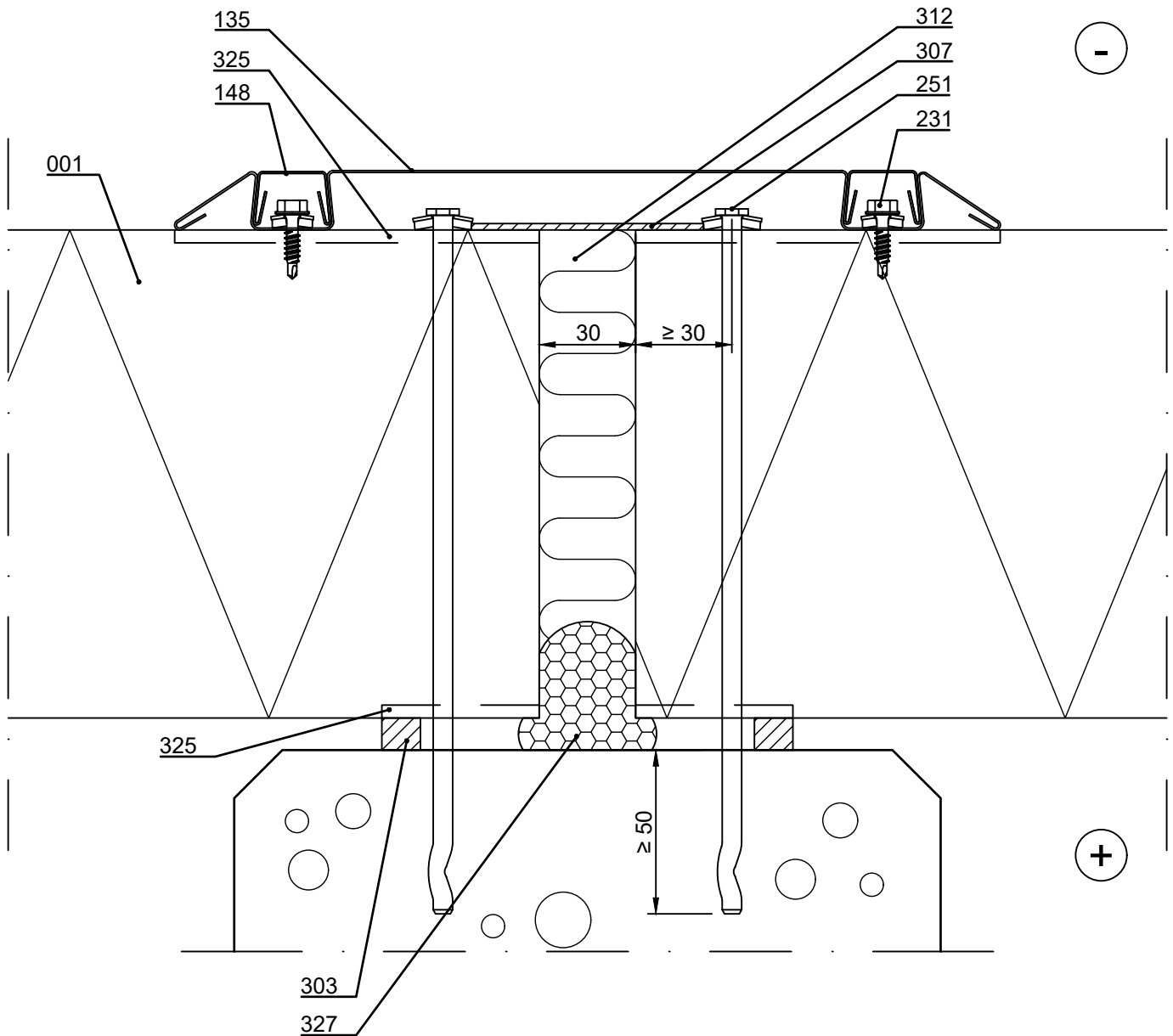
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- ☐ 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. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

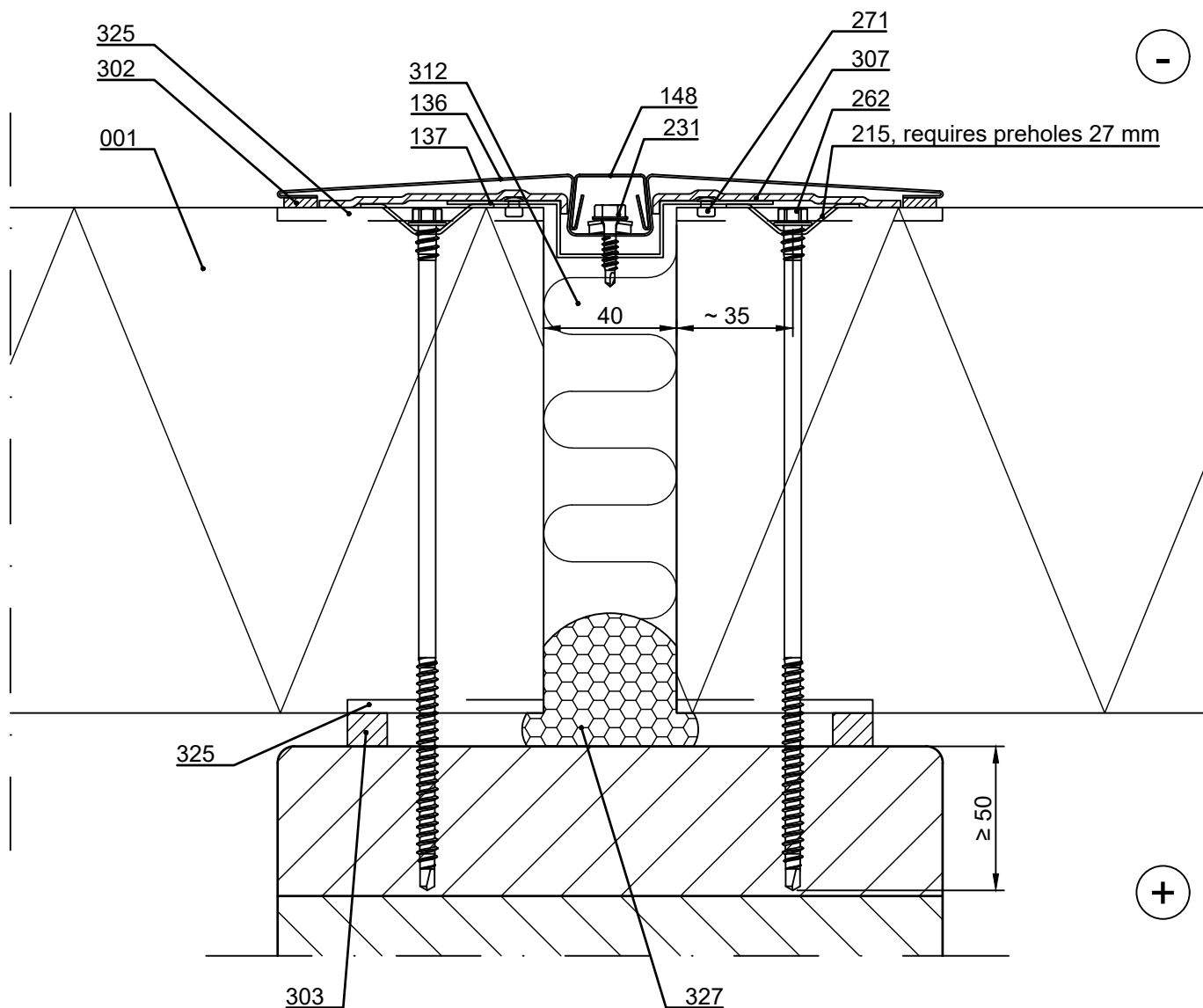


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 135. /EA1JV4/ Vertical joint flashing
- ☐ 148. /EA1VCO/ Vertical cover flashing
- ☐ 251. Spike panel fastener, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 307. /EA3JS7525/ Joint sealing

- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

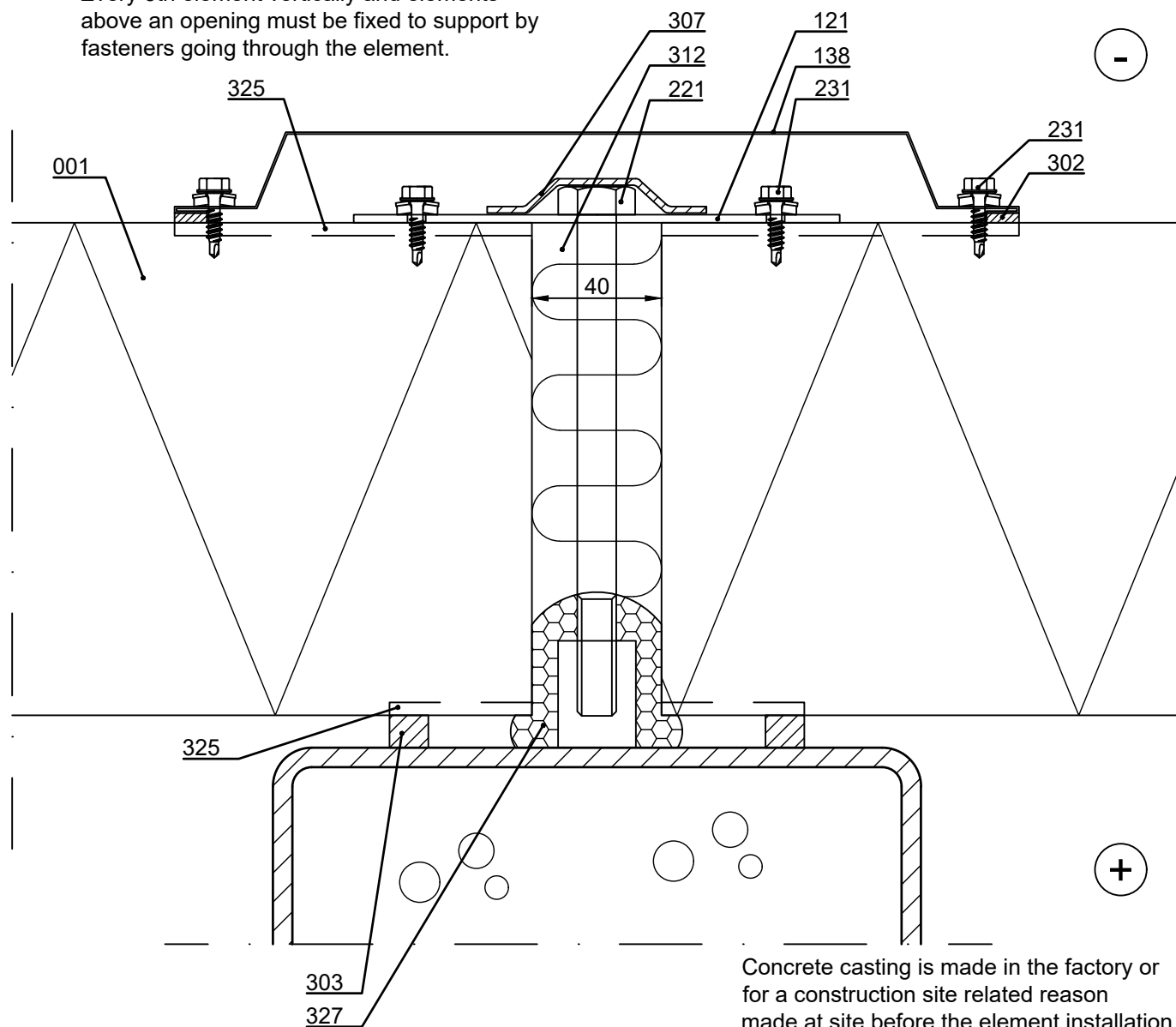


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 136. /EA1JV7/ Vertical joint flashing
- ☐ 137. /EA1JVB2/ Vertical joint bottom flashing
- ☐ 148. /EA1VCO/ Vertical cover flashing
- ☐ 215. /EA2W40-910S/ Countersink washer
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 262. Self-drilling element screw to wood, without washer
- ☐ 271. Rivet
- ☐ 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 307. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

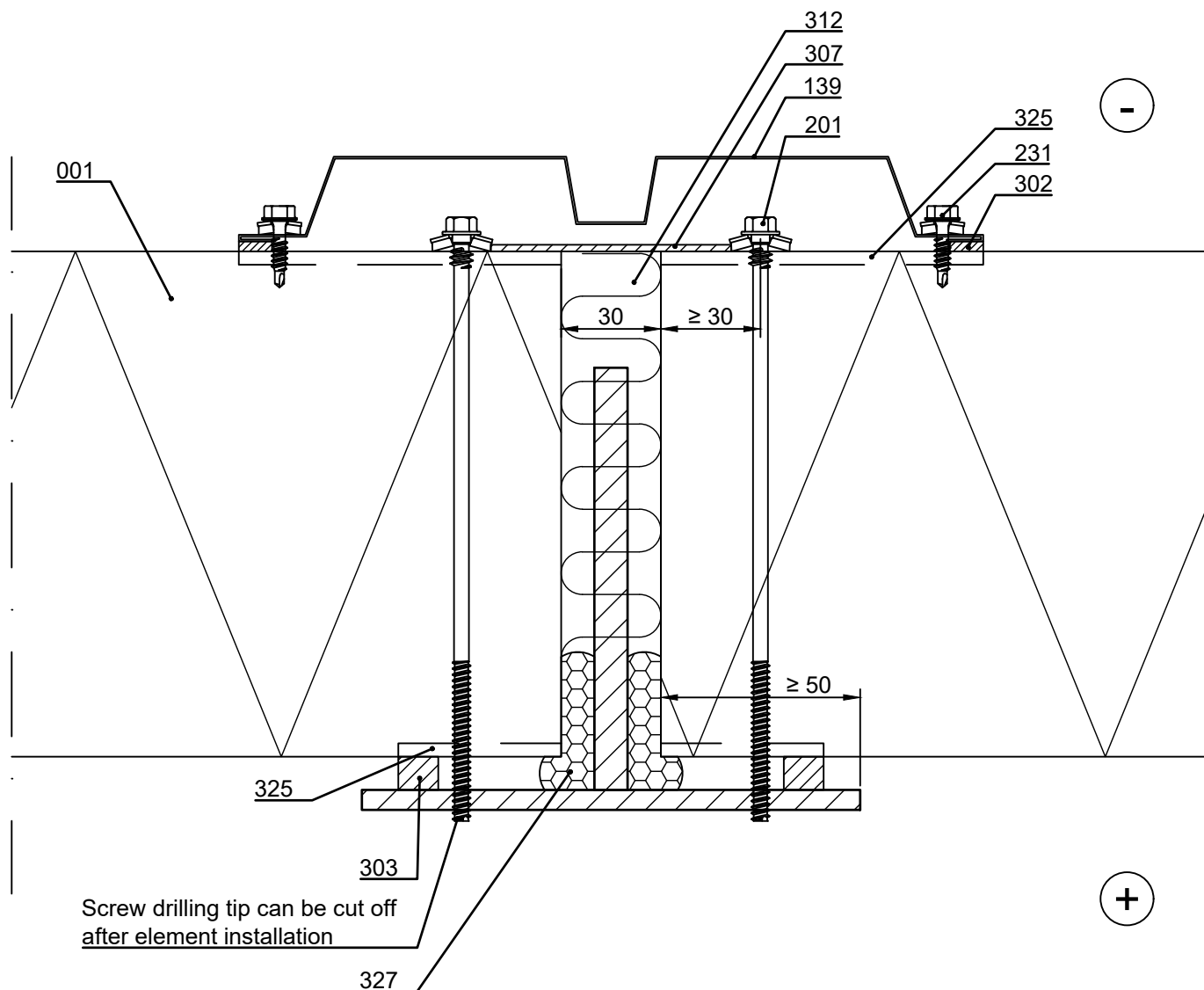
Every 5th element vertically and elements above an opening must be fixed to support by fasteners going through the element.



- ☐ 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)
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 307. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

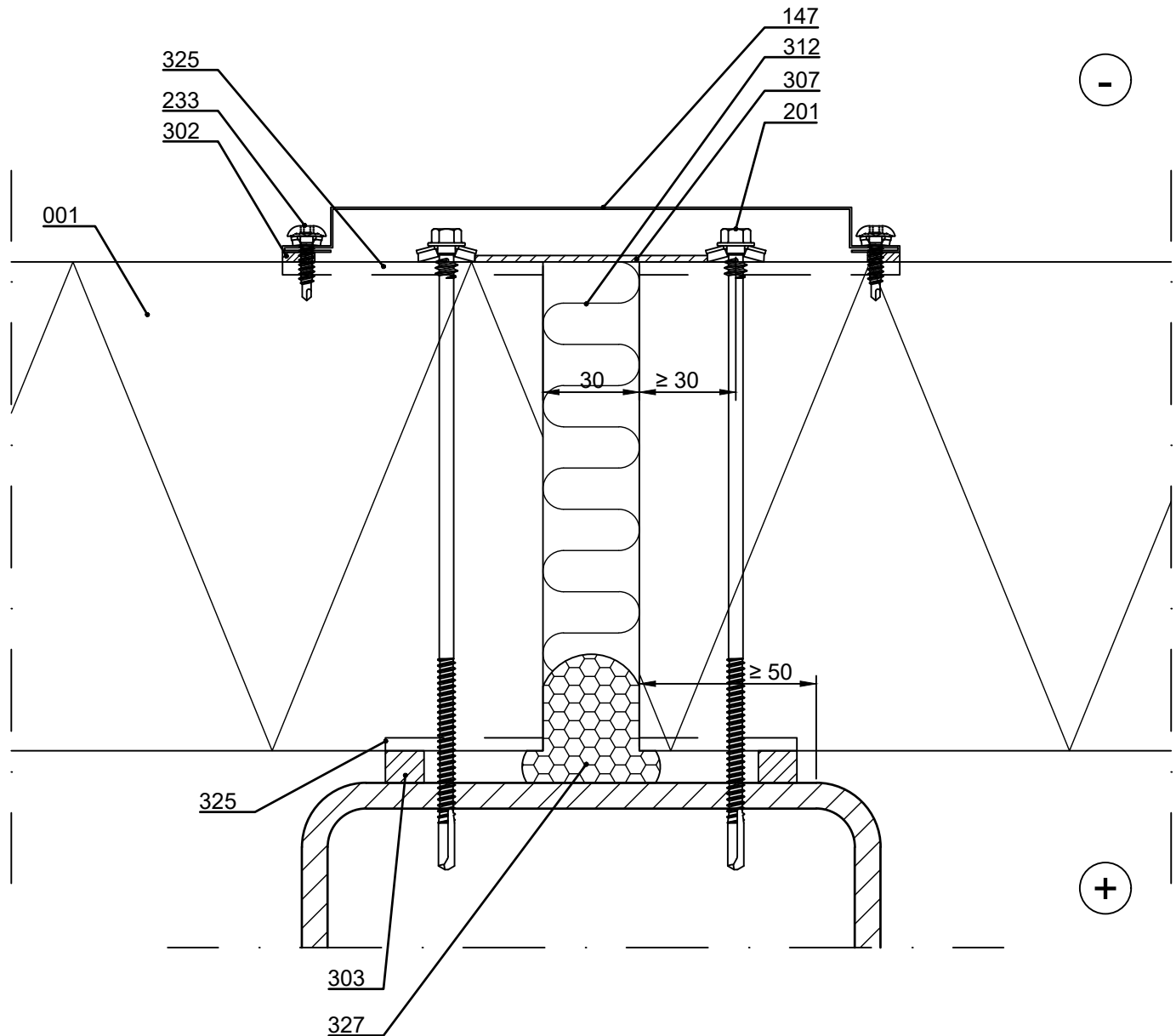
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-7E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- | | |
|--|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 307. /EA3JS7525/ Joint sealing |
| <input type="checkbox"/> 139. /EA1JV3/ Vertical joint flashing | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool band |
| <input type="checkbox"/> 201. Self-drilling element screw, washer with sealing | <input type="checkbox"/> 325. Ruukki silicone during installation |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | to outer female groove in length equivalent to |
| <input type="checkbox"/> 302. /EA3SS410/ Sealing strip | vertical joint flashing width and to inner female |
| <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing | groove from panel end to sealing |
| (for demanding climate conditions e.g. coastal areas) | <input type="checkbox"/> 327. Elastic polyurethane foam |
| <input type="checkbox"/> 303. /EA3SS1210/ Sealing strip | |

☒ Ruukki's delivery

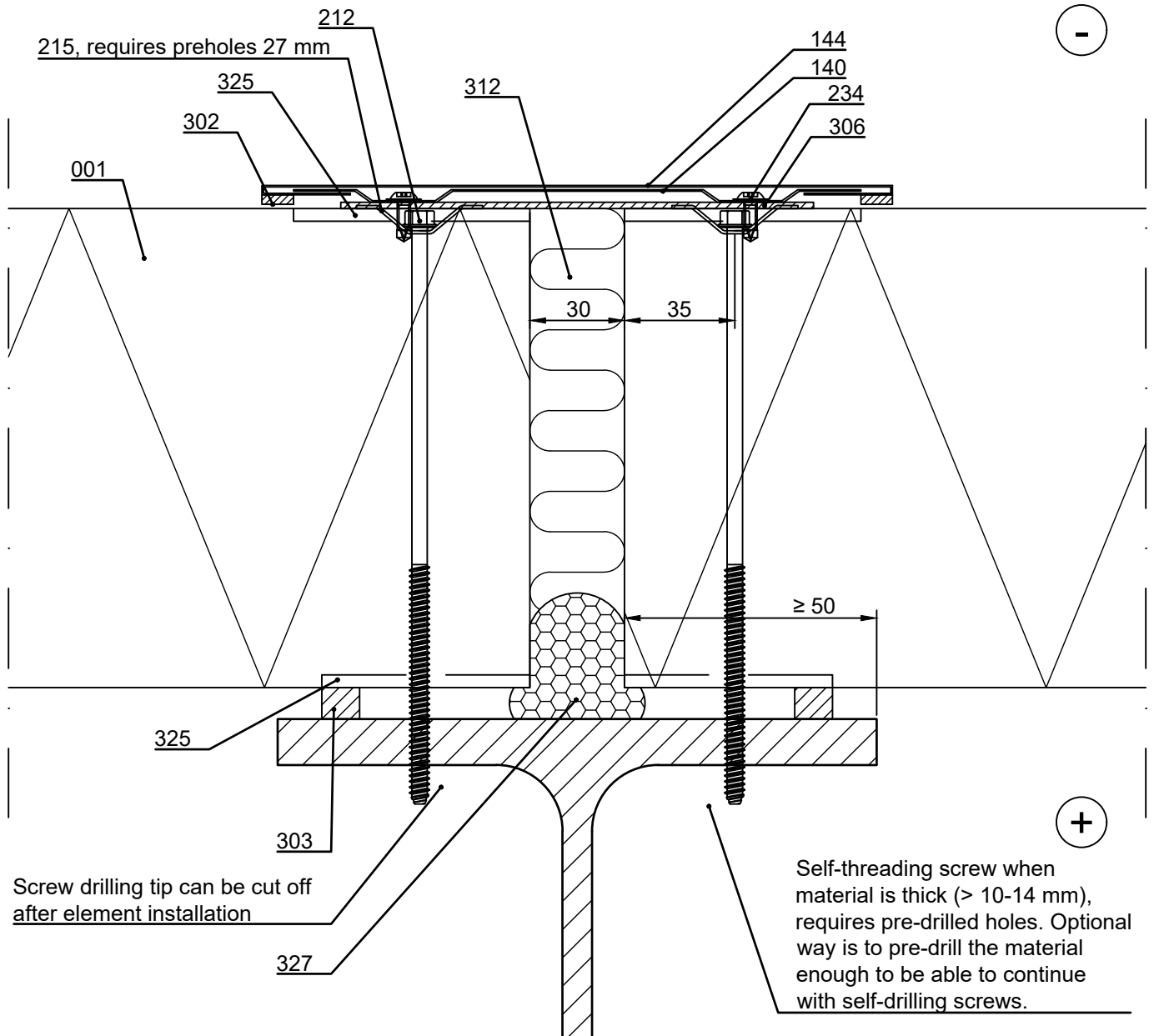
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-8E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- ☐ 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
- ☐ 307. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA03-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



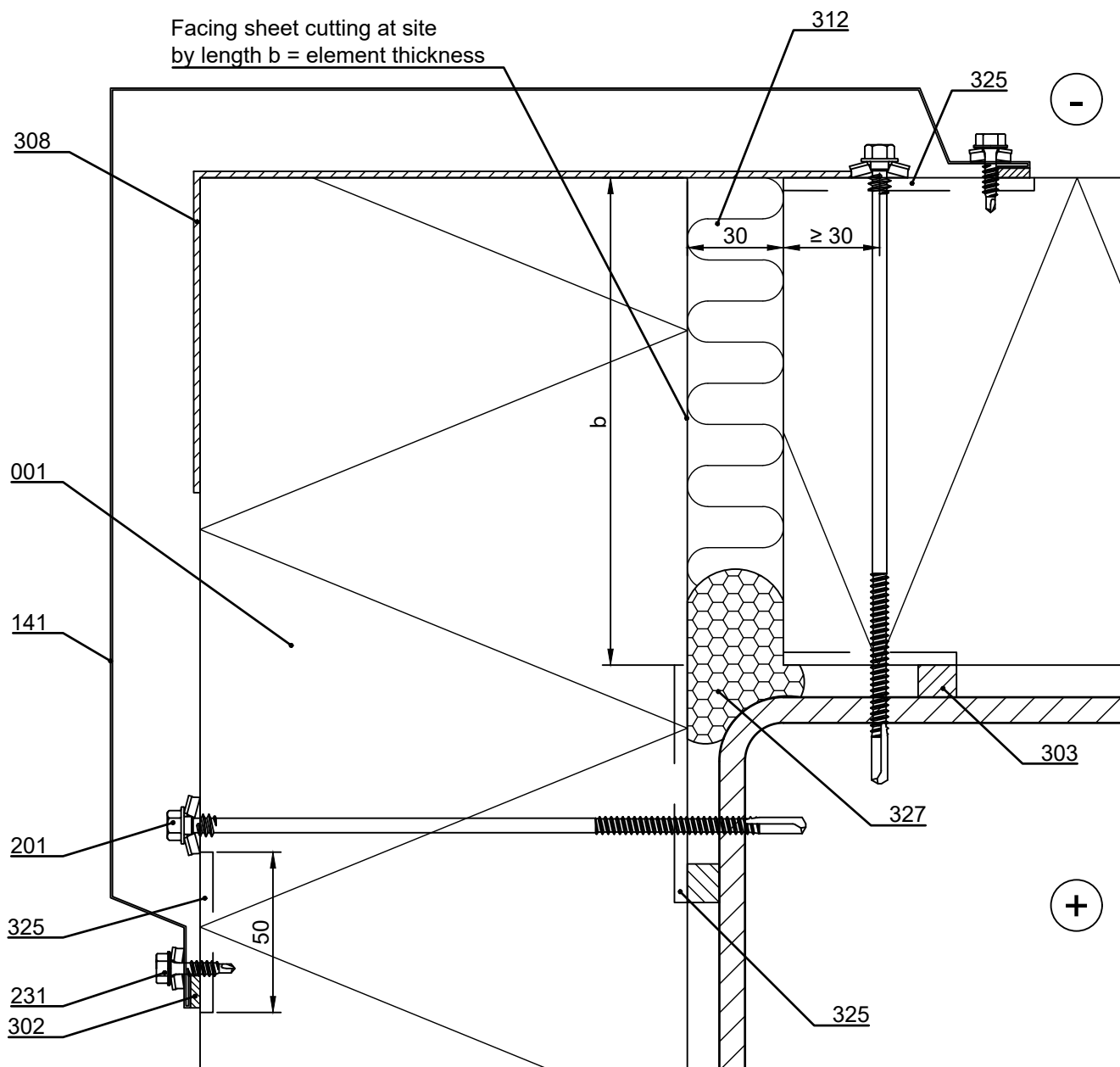
- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 140. /EA1JVB4/ Vertical bottom flashing Invisible
- ☐ 144. /EA1JVI/ Vertical joint flashing Invisible
- ☐ 212. Self-threading element screw, without washer
- ☐ 215. /EA2W40-910S/ Countersink washer
- ☐ 234. /S1E42013GE/ Flat head flashing fastener
- ☐ 302. /EA3SS410/ Sealing strip
- ☐ /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)

- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 306. /EA3JS15025/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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
Rectangle hollow section column, option 1

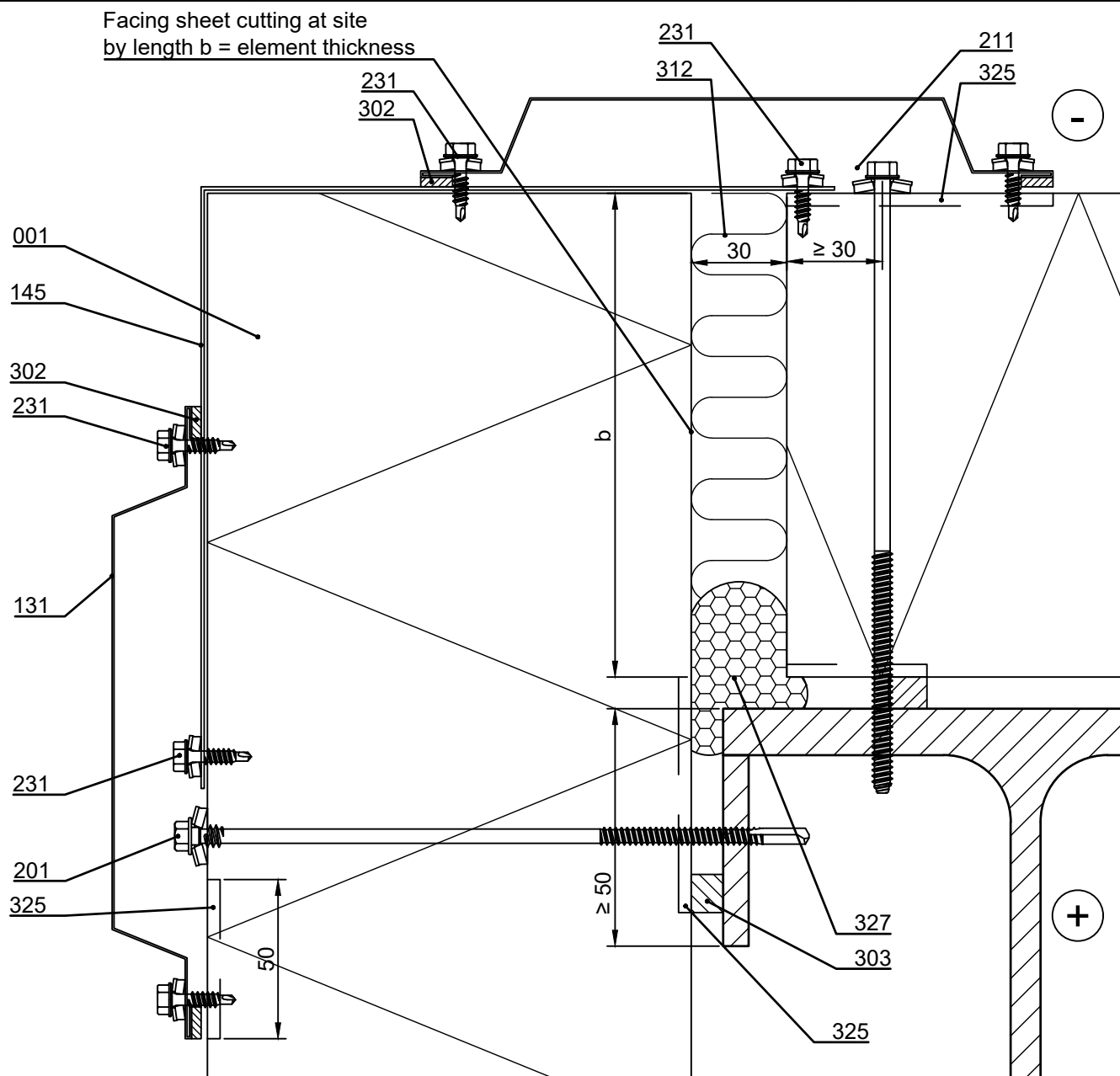
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 141. /EA1EC1-3/ External corner flashing, recommended element 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)
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 308. /EA3JSC30025/ Joint sealing corner
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

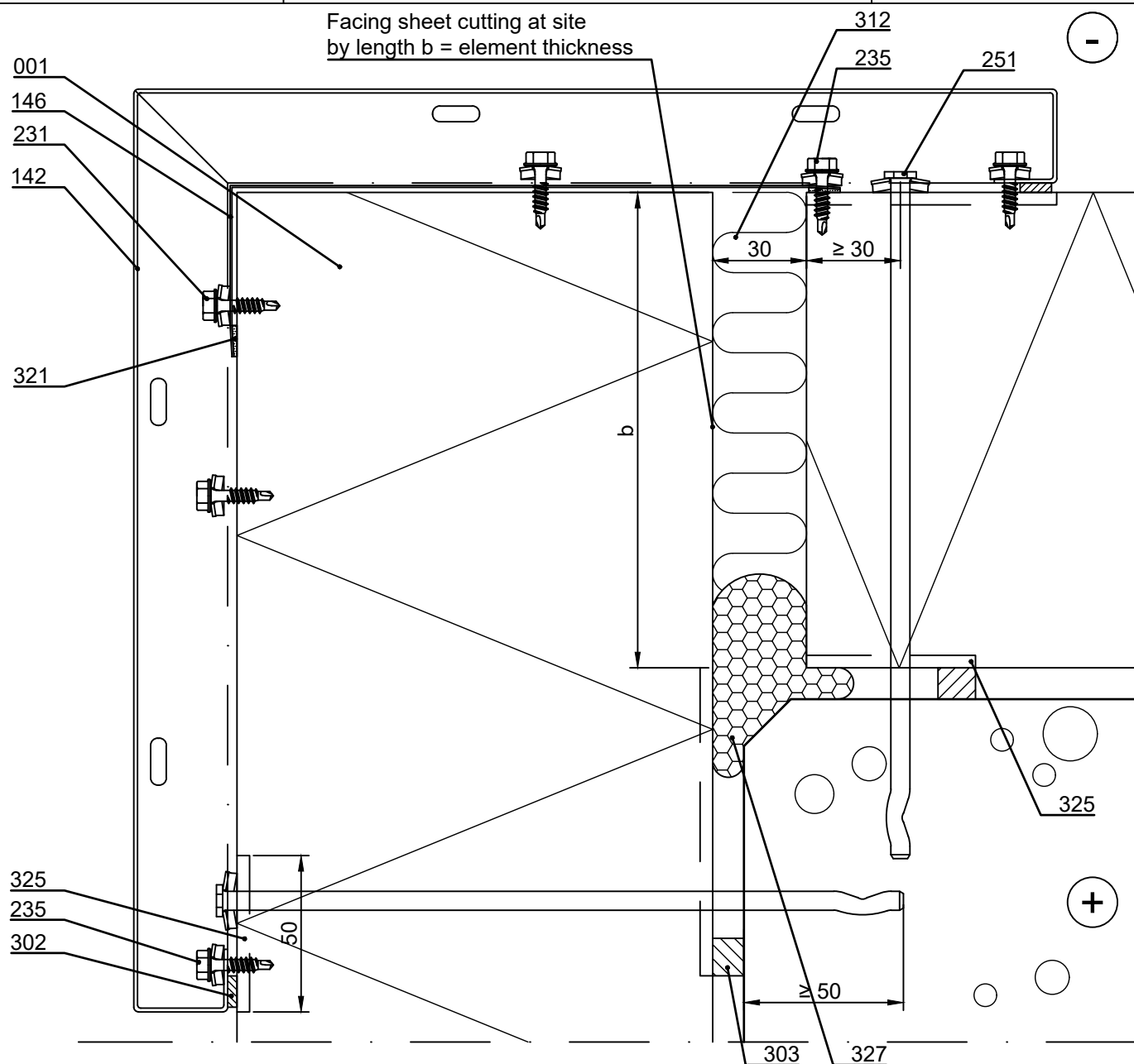
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- ☐ 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. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

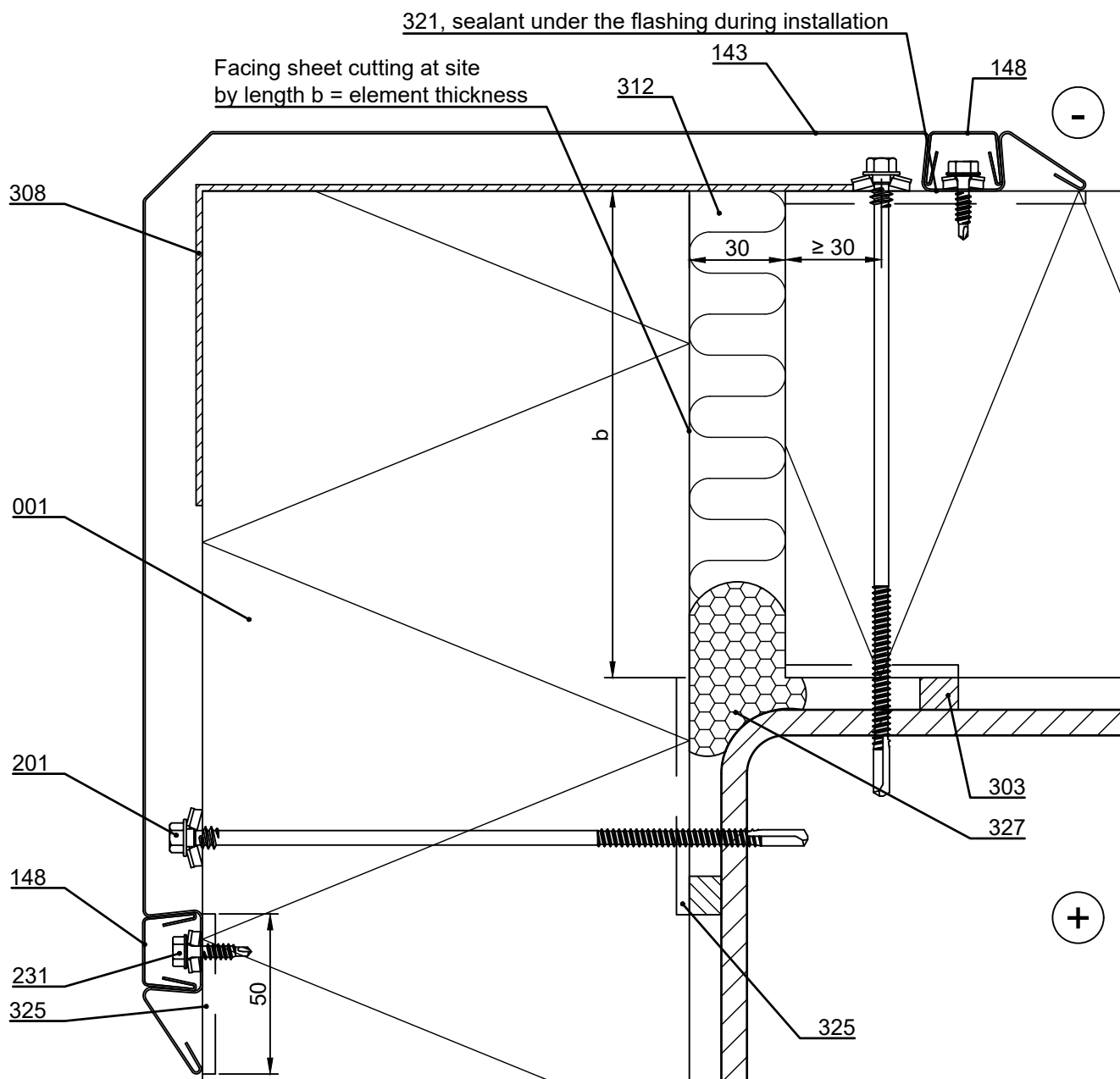


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 142. /EA1EC11-14/ External corner panel
- ☐ 146. /EA1EC9-___/ External corner flashing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 235. Joint panel fastener, stainless steel, washer with sealing
- ☐ 251. Spike panel fastener, washer with sealing
- ☐ 302.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

- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 321. Ruukki silicone
- ☐ 325. Ruukki silicone 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

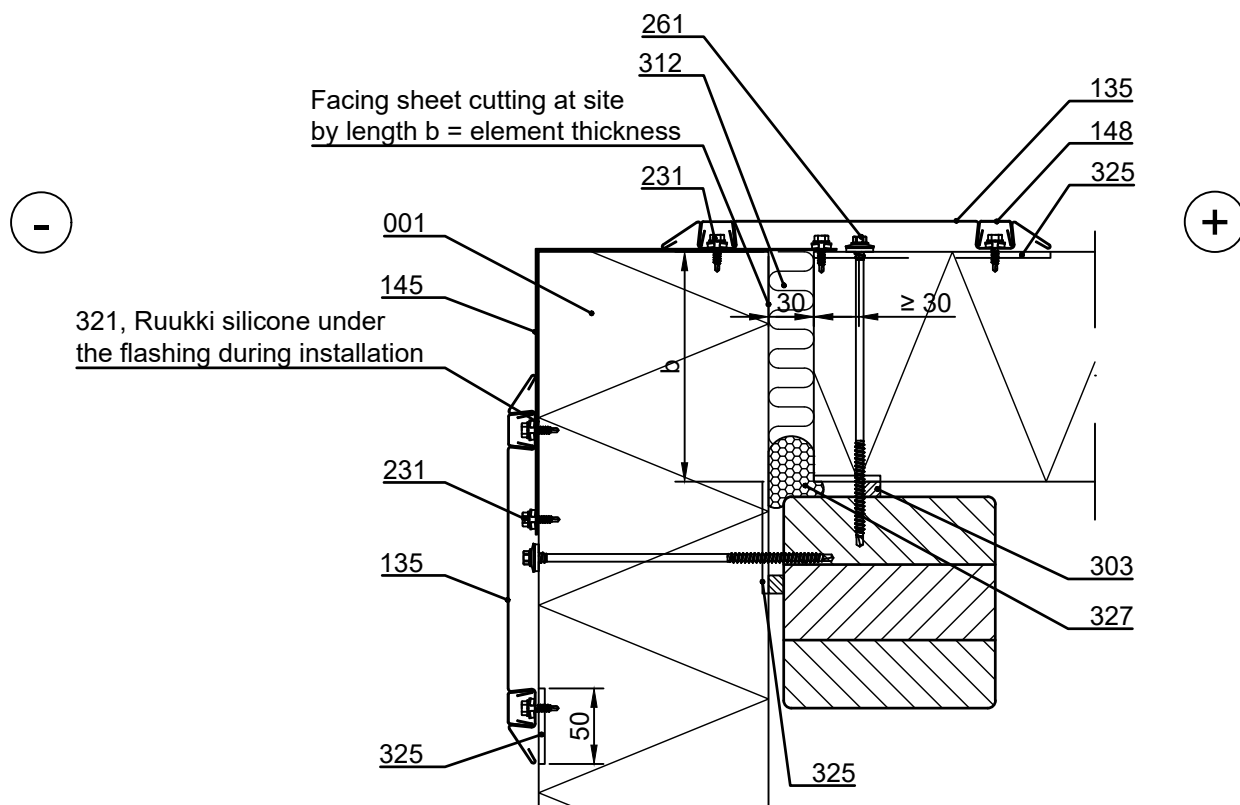
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.



- | | |
|---|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool band |
| <input type="checkbox"/> 143. /EA1EC5/ External corner flashing,
recommended element thickness ≤ 150 mm | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 148. /EA1VCO/ Vertical cover flashing | <input type="checkbox"/> 325. Ruukki silicone during installation
to outer female groove in length equivalent to
vertical joint flashing width and to inner female
groove from panel end to sealing |
| <input type="checkbox"/> 201. Self-drilling element screw, washer with sealing | <input type="checkbox"/> 327. Elastic polyurethane foam |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | |
| <input type="checkbox"/> 303. /EA3SS1210/ Sealing strip | |
| <input type="checkbox"/> 308. /EA3JSC30025/ Joint sealing corner | |

☒ Ruukki's delivery

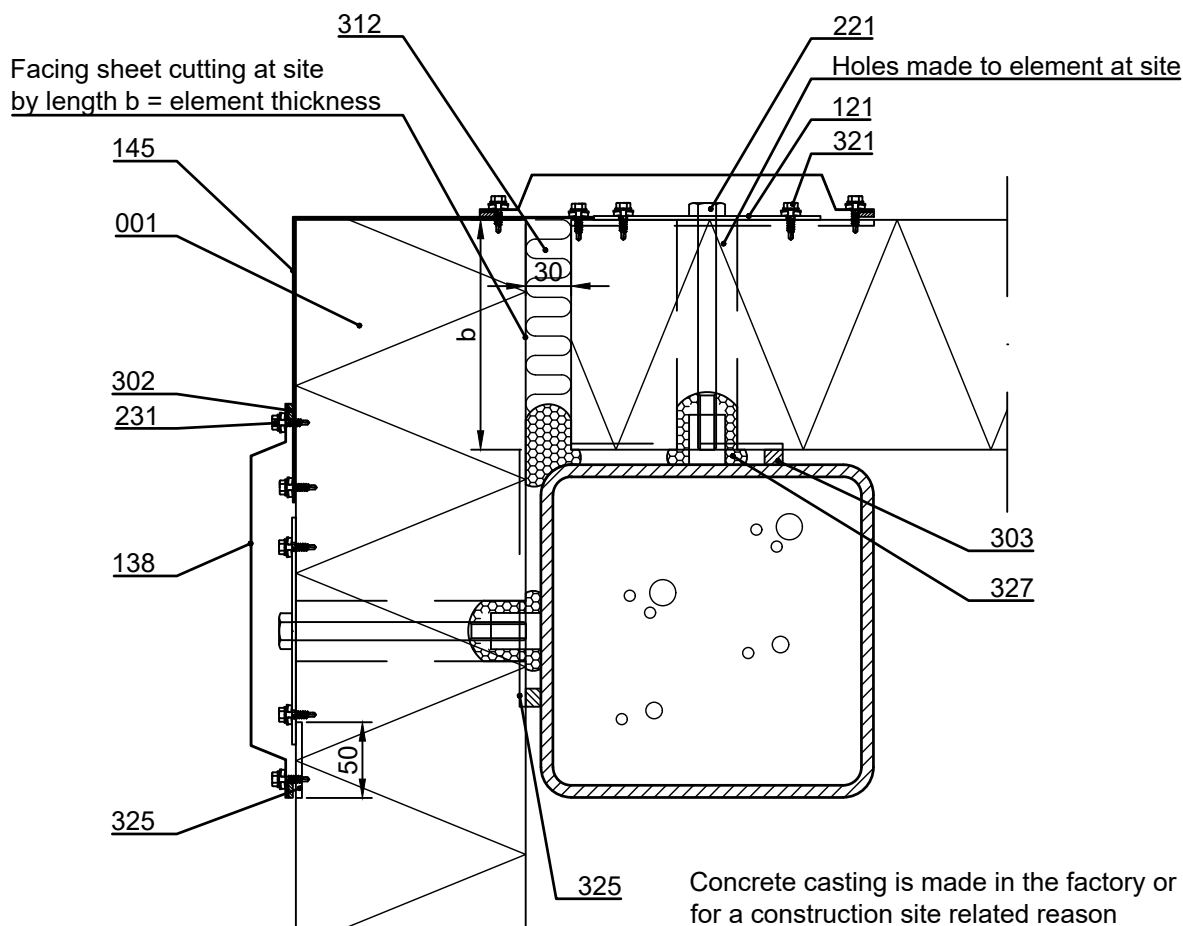
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 135. /EA1JV4/ Vertical joint flashing
- ☐ 145. /EA1C10-___/ Vertical joint flashing, $t = 1 \text{ mm} / 1.2 \text{ mm}$ (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. /EAWS5657850/ Mineral wool band
- ☐ 321. Ruukki silicone
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



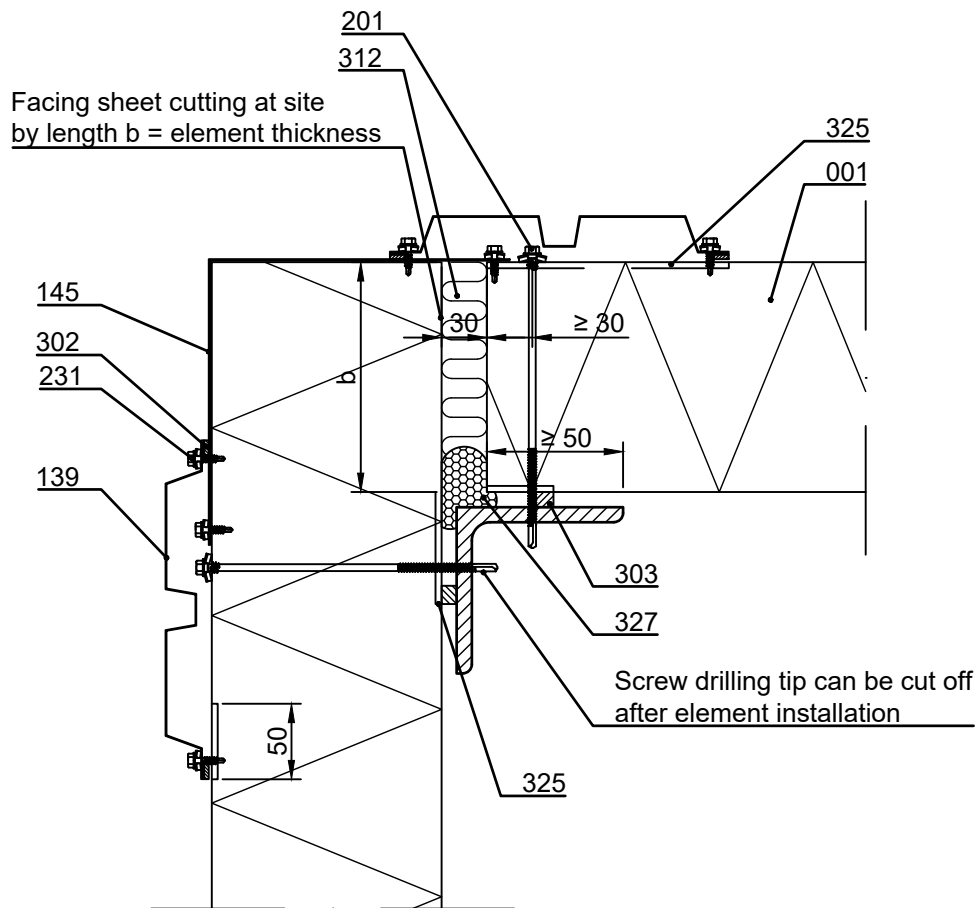
Concrete casting is made in the factory or for a construction site related reason made at site before the element installation.

Every 5th element vertically and elements above an opening must be fixed to support by fasteners going through the element.

- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 121. /EA6FP_/ Fastening plate
- ☐ 138. /EA1JV2/ Vertical joint flashing
- ☐ 145. /EA1C10-___/ External corner flashing, t = 1 mm / 1.2 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. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-9E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Secondary steel supports for elements according to structural designer.

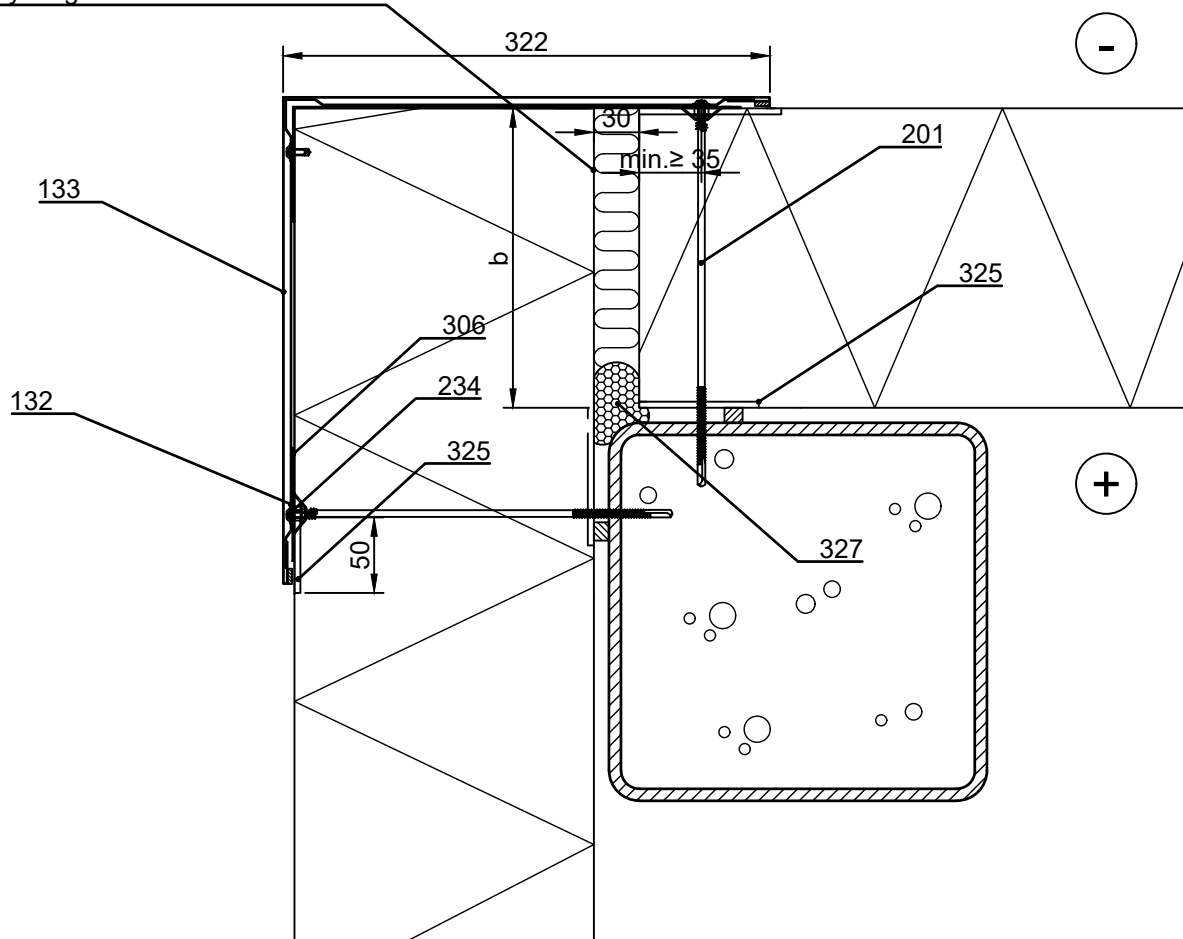
The structures on the side of the roof are displayed in the parapet details.

- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 139. /EA1JV3/ Vertical joint flashing
- ☐ 145. /EA1C10-___/ Vertical joint flashing, t = 1 mm / 1.2 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. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	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 = element thickness



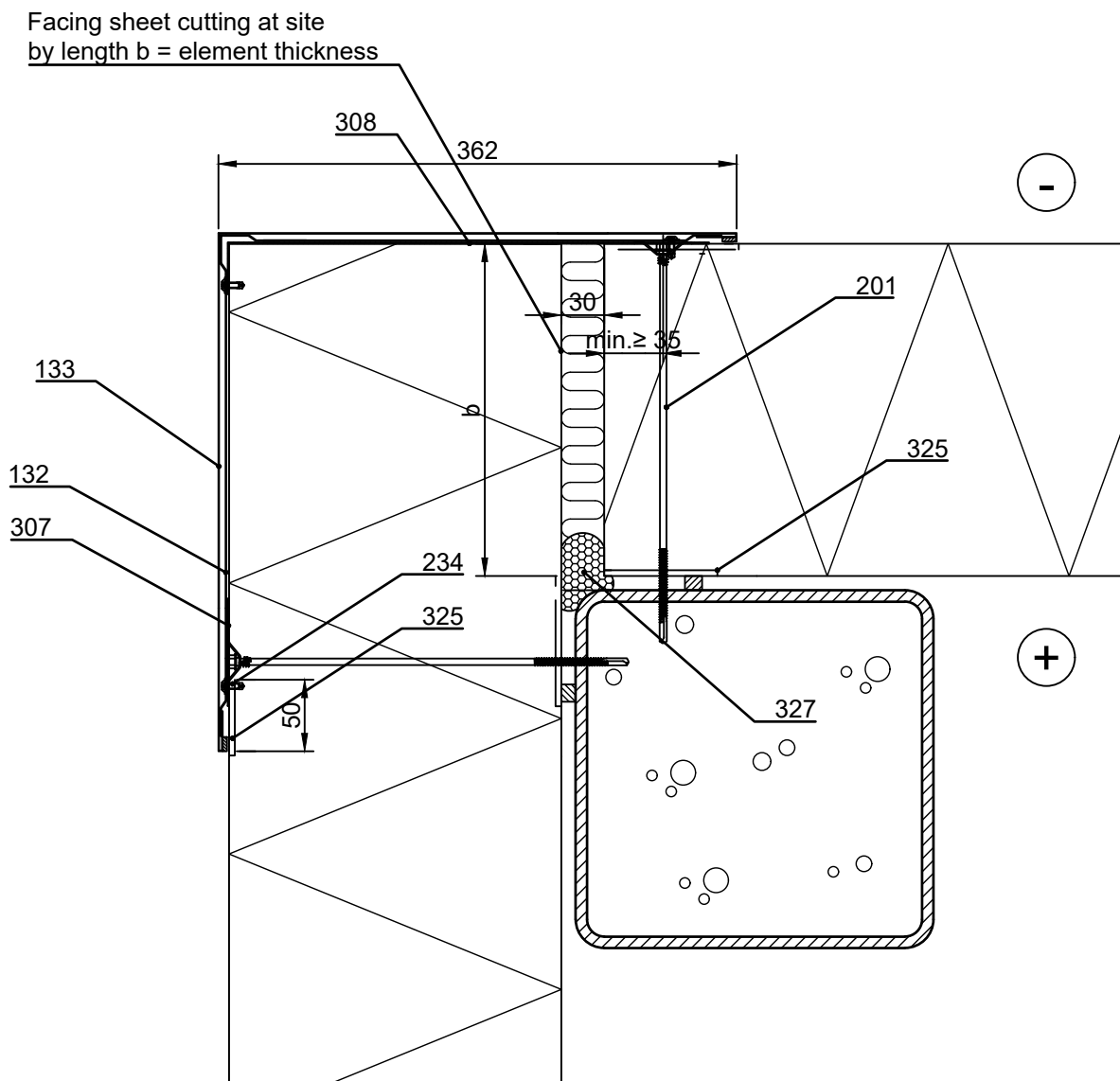
Elements must be installed before
concrete casting.

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

- | | |
|---|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 303. /EA3SS1210/ Sealing strip |
| <input type="checkbox"/> 132. /EA1EXB4/ Corner bottom flashing Invisible | <input type="checkbox"/> 306. /EA3JS7525/ Joint sealing |
| <input type="checkbox"/> 133. /EA1ECI/ External corner flashing Invisible | <input type="checkbox"/> 308. /EA3JSC30025/ Joint sealing corner |
| <input type="checkbox"/> 201. Self-drilling element screw, without washer | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool roll |
| <input type="checkbox"/> 215. /EA2W40-910S/ Countersink washer | <input type="checkbox"/> 325. Ruukki silicone during installation |
| <input type="checkbox"/> 234. /S1E42013GE/ Flat head flashing fastener | to outer female groove in length |
| <input type="checkbox"/> 302. /EA3SS410/ Sealing strip | equivalent to vertical joint flashing width and |
| /EA3SS510/ Sealing band EPDM for flashing | inner female groove in length of sealing |
| (for demanding climate conditions e.g. coastal areas) | <input type="checkbox"/> 327. Elastic polyurethane |

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-31E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



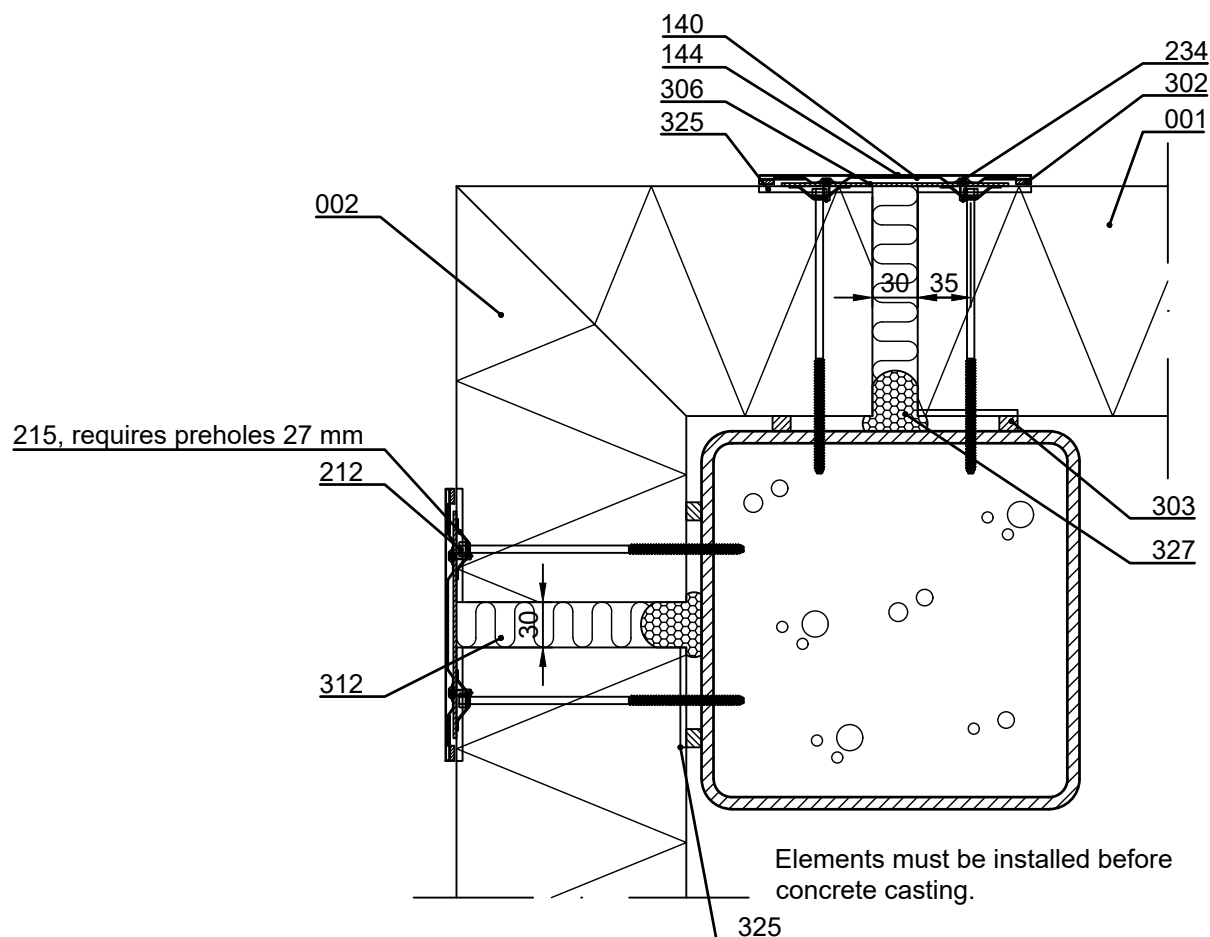
Elements must be installed before
concrete casting.

- | | |
|--|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 303. /EA3SS1210/ Sealing strip |
| <input type="checkbox"/> 132. /EA1EXB6/ Corner bottom flashing Invisible | <input type="checkbox"/> 307. /EA3JS7525/ Joint sealing |
| <input type="checkbox"/> 133. /EA1ECI2/ External corner flashing Invisible | <input type="checkbox"/> 308. /EA3JSC30025/ Joint sealing corner |
| <input type="checkbox"/> 201. Self-drilling element screw, without washer | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool roll |
| <input type="checkbox"/> 215. /EA2W40-910S/ Countersink washer | <input type="checkbox"/> 325. Ruukki silicone during installation |
| <input type="checkbox"/> 234. /S1E42013GE/ Flat head flashing fastener | to outer female groove in length |
| <input type="checkbox"/> 302. /EA3SS410/ Sealing strip | equivalent to vertical joint flashing width and |
| /EA3SS510/ Sealing band EPDM for flashing | inner female groove in length of sealing |
| (for demanding climate conditions e.g. coastal areas) | <input type="checkbox"/> 327. Elastic polyurethane |

☒ Ruukki's delivery

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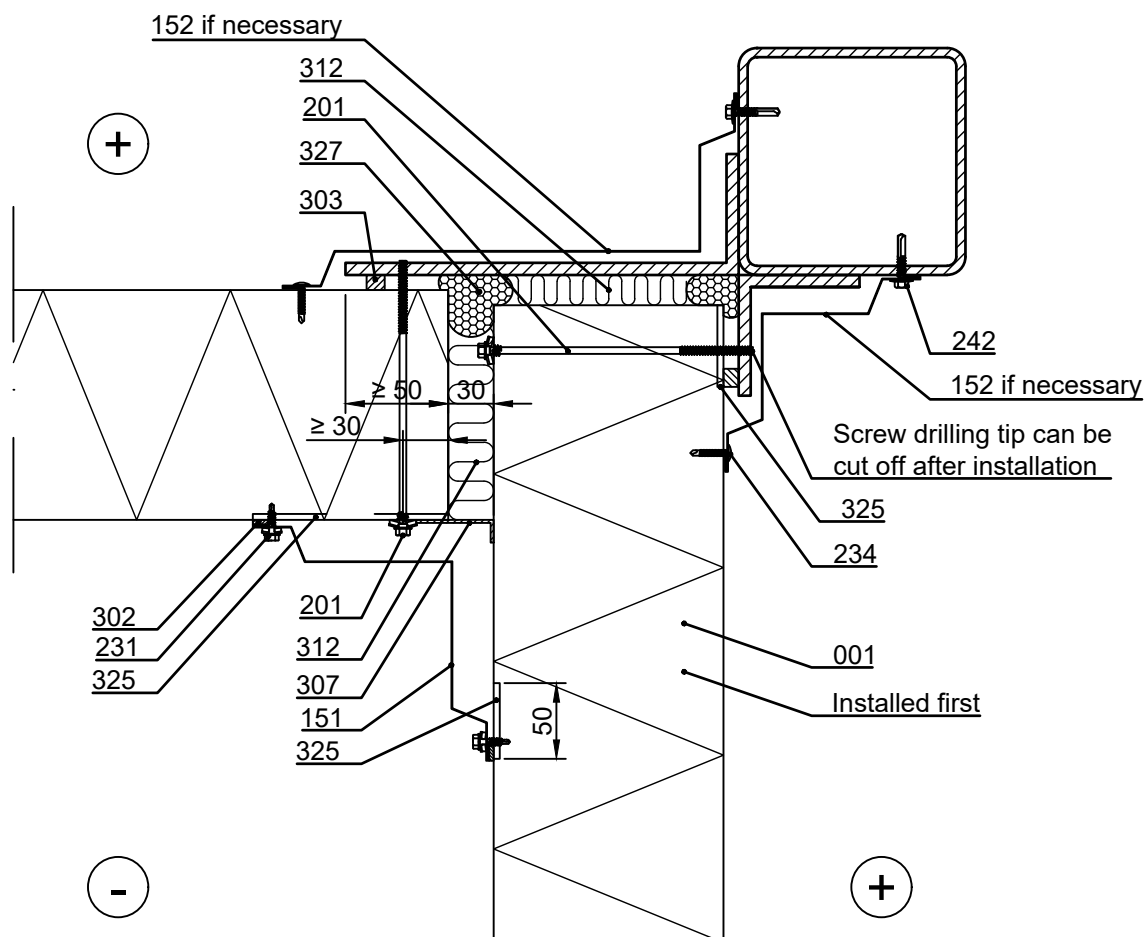
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA04-ENERGY-33E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 002. Sandwich panel SPA ENERGY corner element,
(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. /S1E42013GE/ 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. /EA3JS15025/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

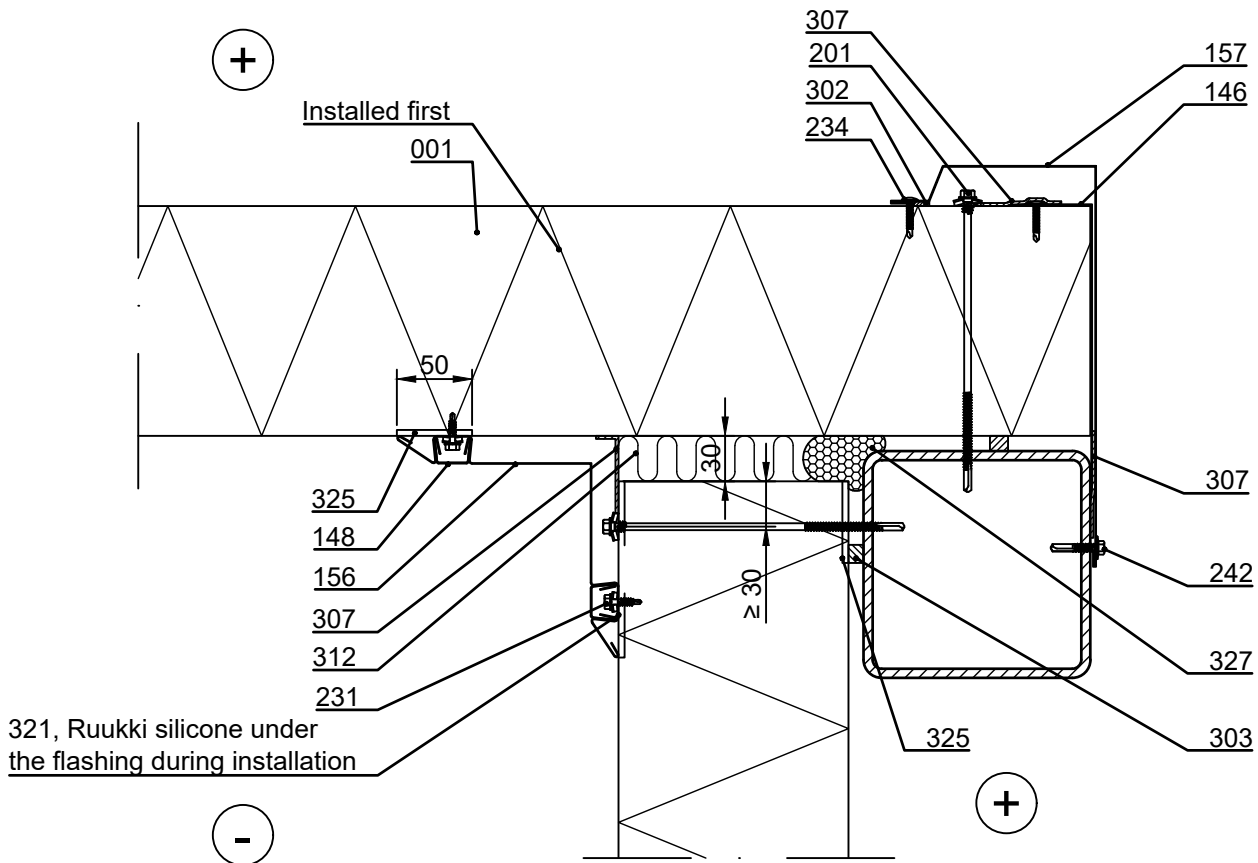
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- ☐ 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. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

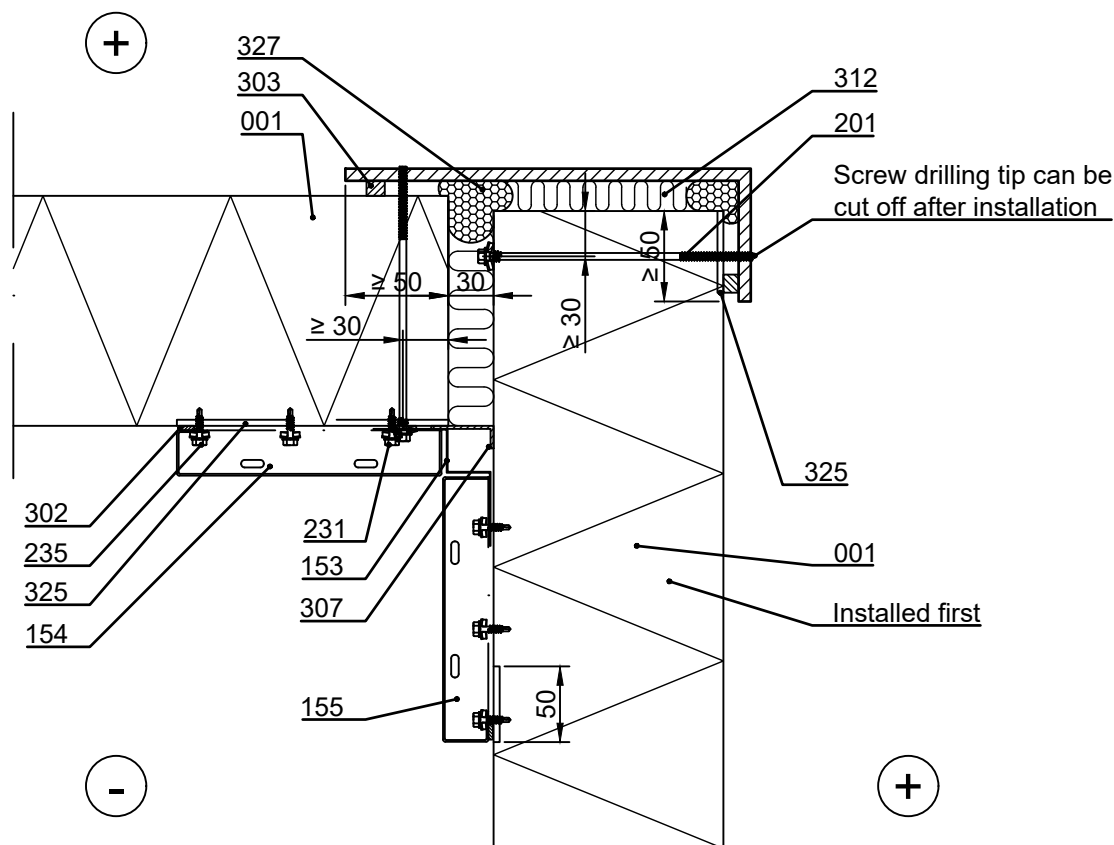


Remember that under internal corner flashing
EA1IC9 butt joints must be butt strap EA1CJP2

- ☐ 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. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 321. Ruukki silicone
- ☐ 325. Ruukki silicone 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

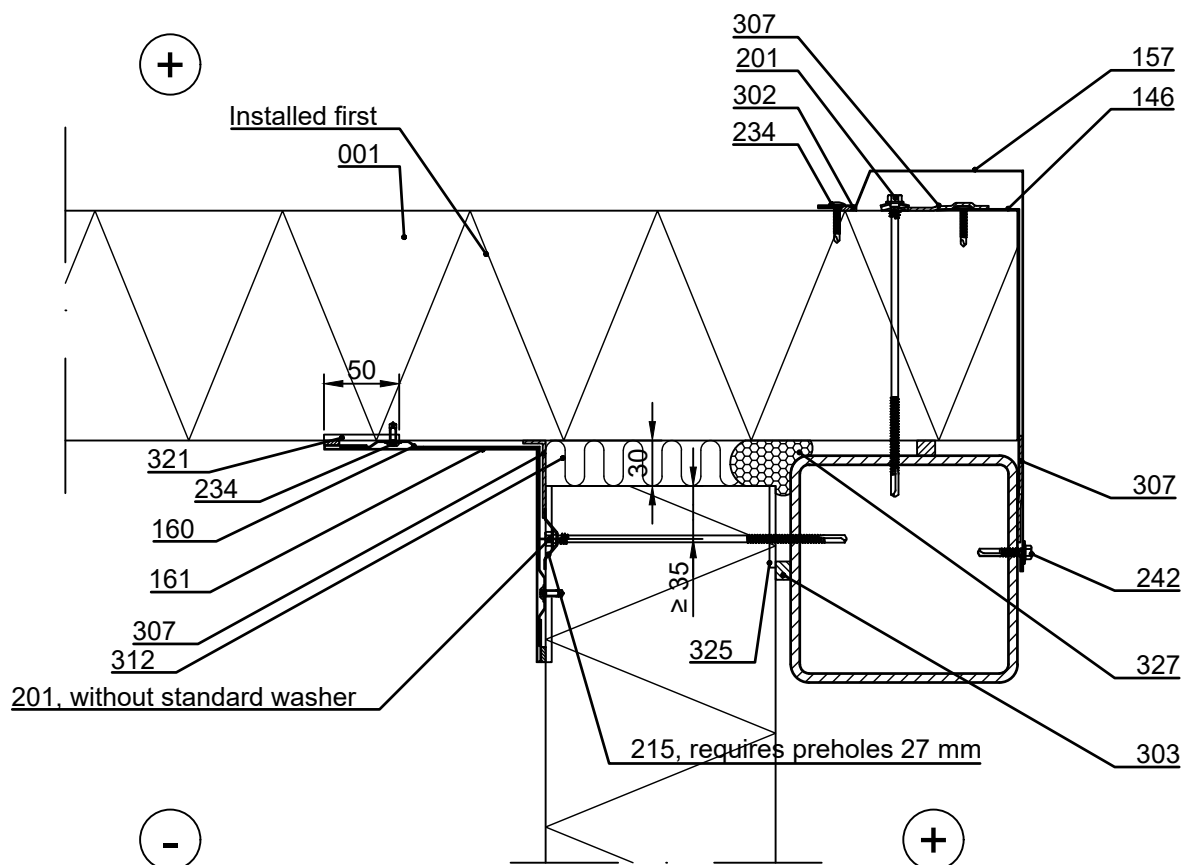
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- ☐ 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. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 325. Ruukki silicone 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

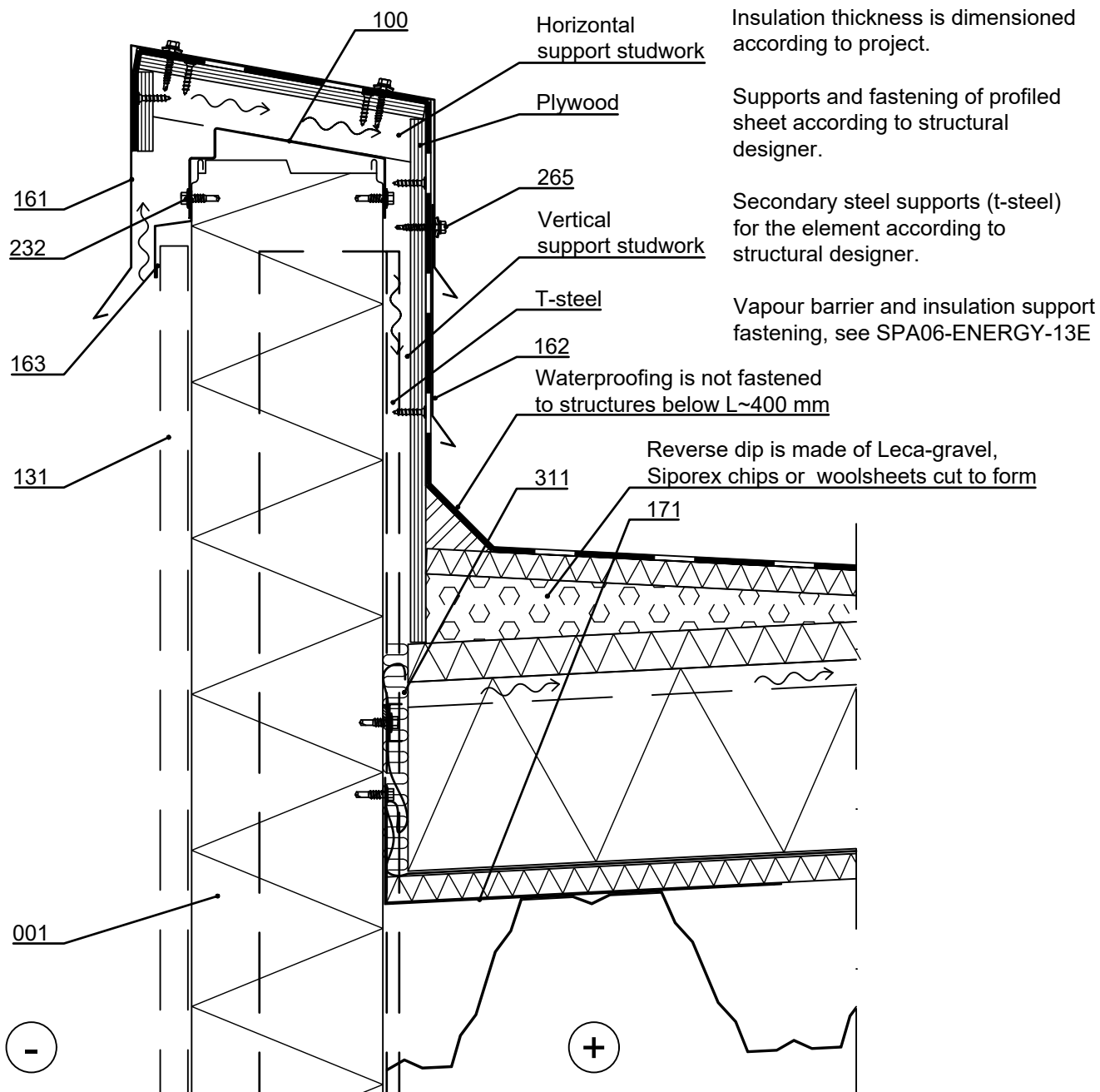
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA05-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- ☐ 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. /S1E42013G___/ 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. /EA3JS7525/ Joint sealing
- ☐ 312. /EAWS5657850/ Mineral wool band
- ☐ 321. Ruukki silicone
- ☐ 325. Ruukki silicone 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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

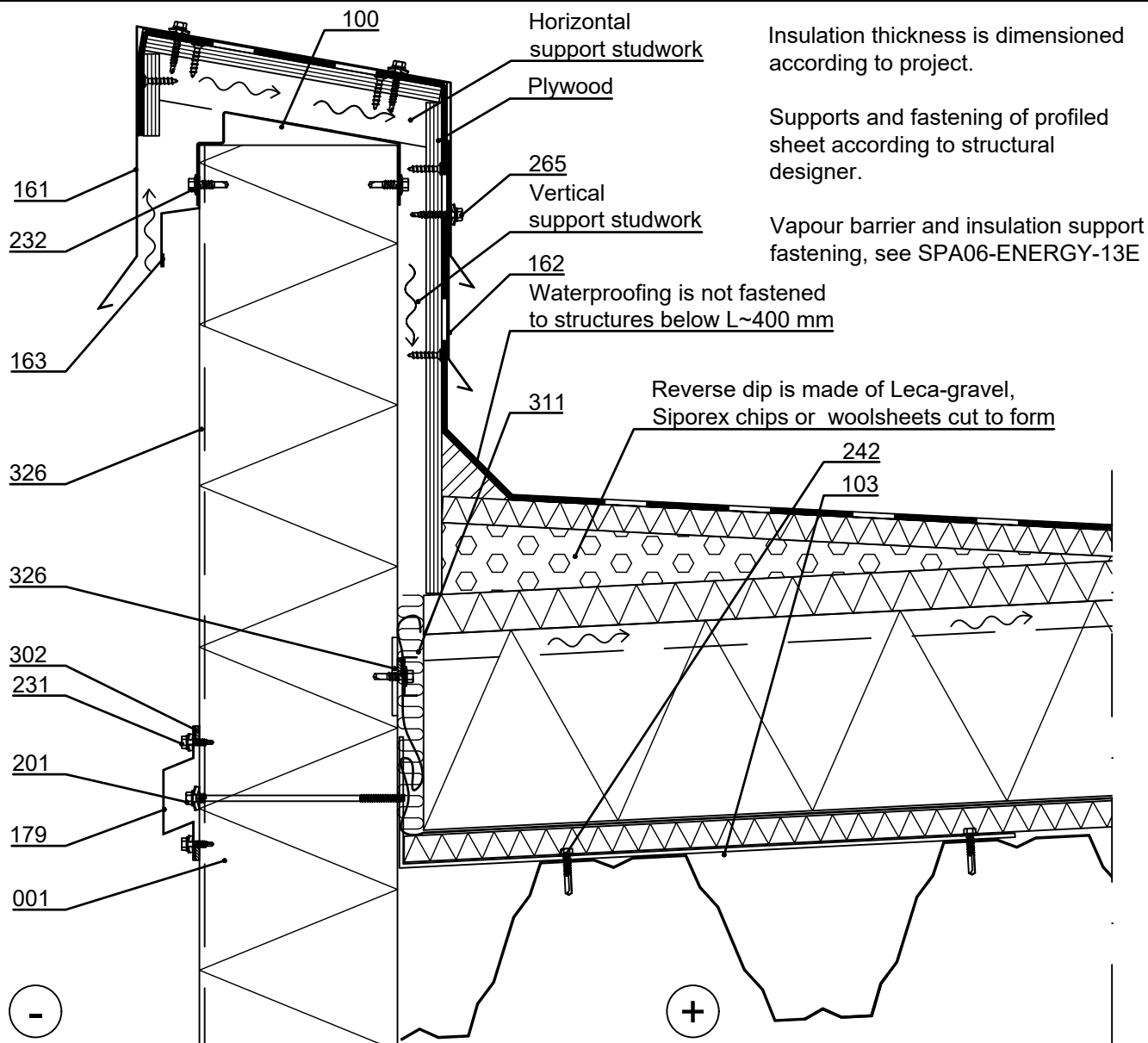


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1EP___/ Purlin
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 161. Eave flashing, t = 0.6 mm, according to project
- ☐ 162. Cover flashing, t = 0.6 mm, according to project
- ☐ 163. Storm flashing, t = 0.6 mm, according to project
- ☐ 171. Insulation support flashing, t = 0.6 mm, according to project
- ☐ 232. Flashing fastener, without washer
- ☐ 265. Fastener screw to wood, washer with sealing
- ☐ 311. /EAWS30565/ Mineral wool

☒ Ruukki's delivery

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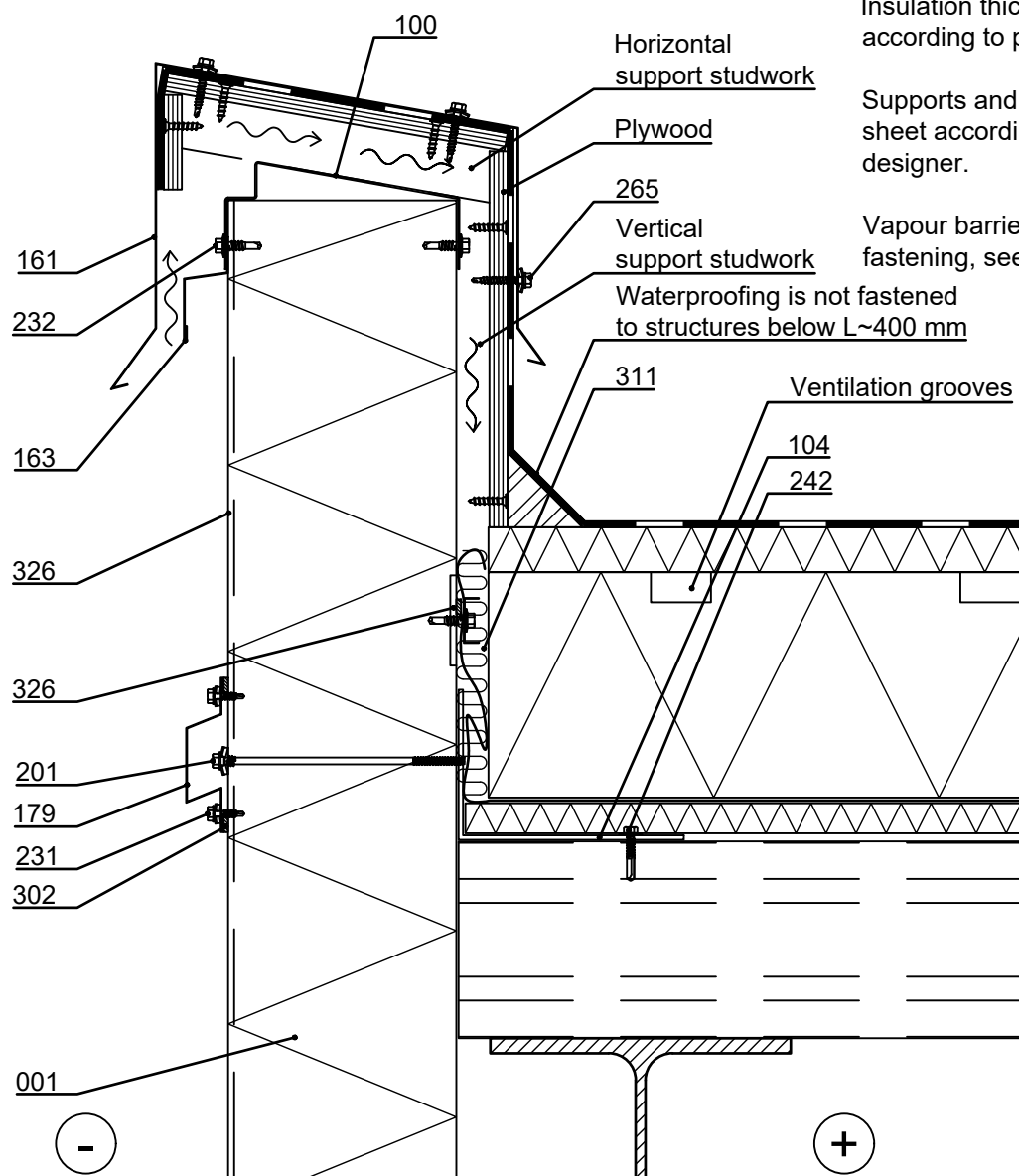
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



- ☐ 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
- ☐ 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. /EAWS30565/ Mineral wool
- ☐ 325. Ruukki silicone during installation to outer male groove full length of element and inner female groove 60 mm in length of element

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-4E-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

Waterproofing is not fastened to structures below L~400 mm

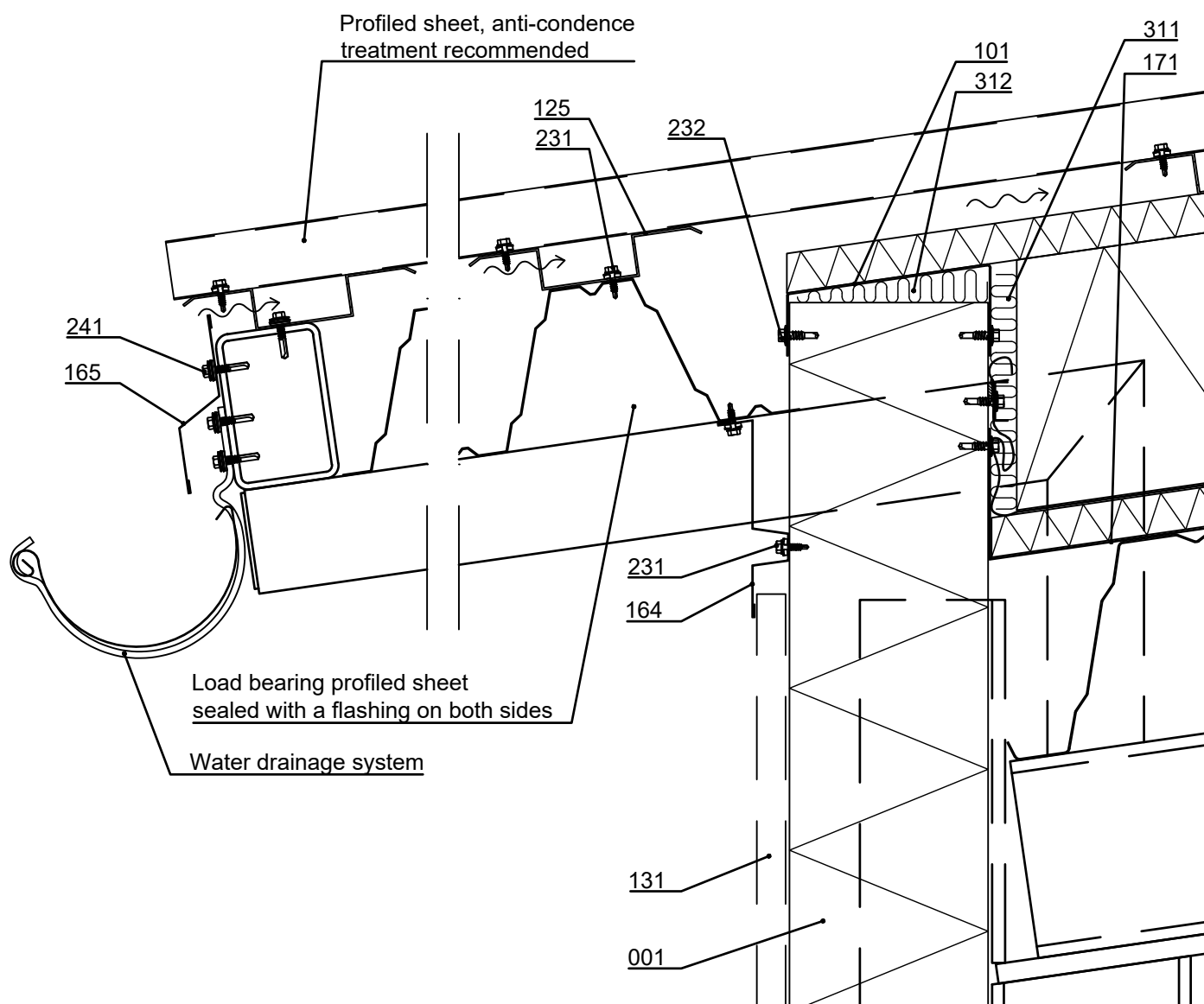
Ventilation grooves

- ☐ 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
- ☐ 232. Flashing fastener, without washer
- ☐ 242. Fastener screw, without washer
- ☐ 265. Fastener screw to wood, washer with sealing
- ☐ 302. /EA3SS410/ Sealing strip
- ☐ 311. /EAWS30565/ Mineral wool
- ☐ 325. Ruukki silicone during installation to outer male groove full length of element and inner female groove 60 mm in length of element

☒ Ruukki's delivery

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

Date 25.05.2023	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. /EAWS30565/ Mineral wool
- ☐ 312. /EAWS___/ Mineral wool band

☒ Ruukki's delivery

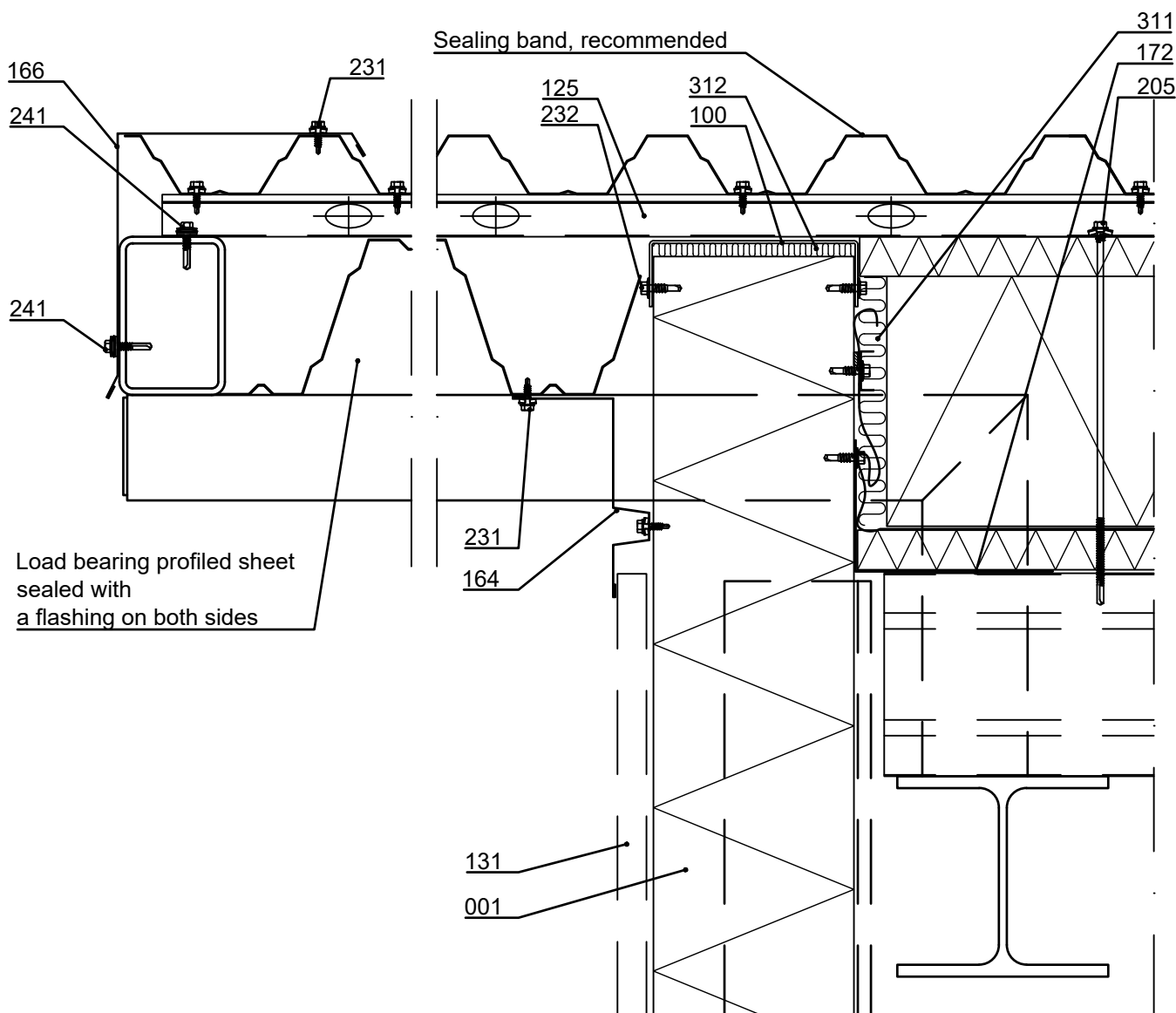
Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

Element 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

Date 25.05.2023	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. /EAWS30565/ Mineral wool
- ☐ 312. /EAWS___/ Mineral wool band

☒ Ruukki's delivery

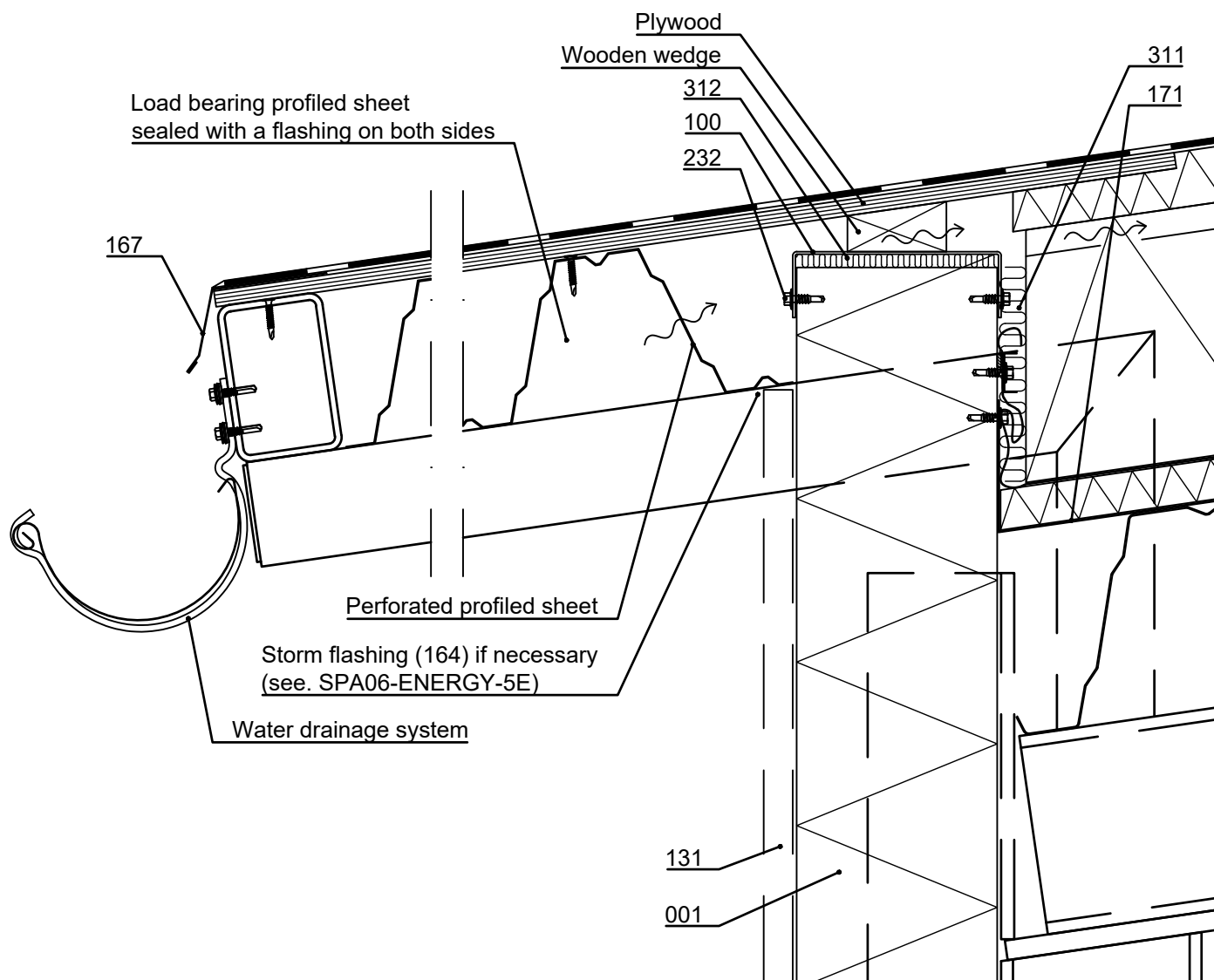
Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

Element 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

Date 25.05.2023	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.

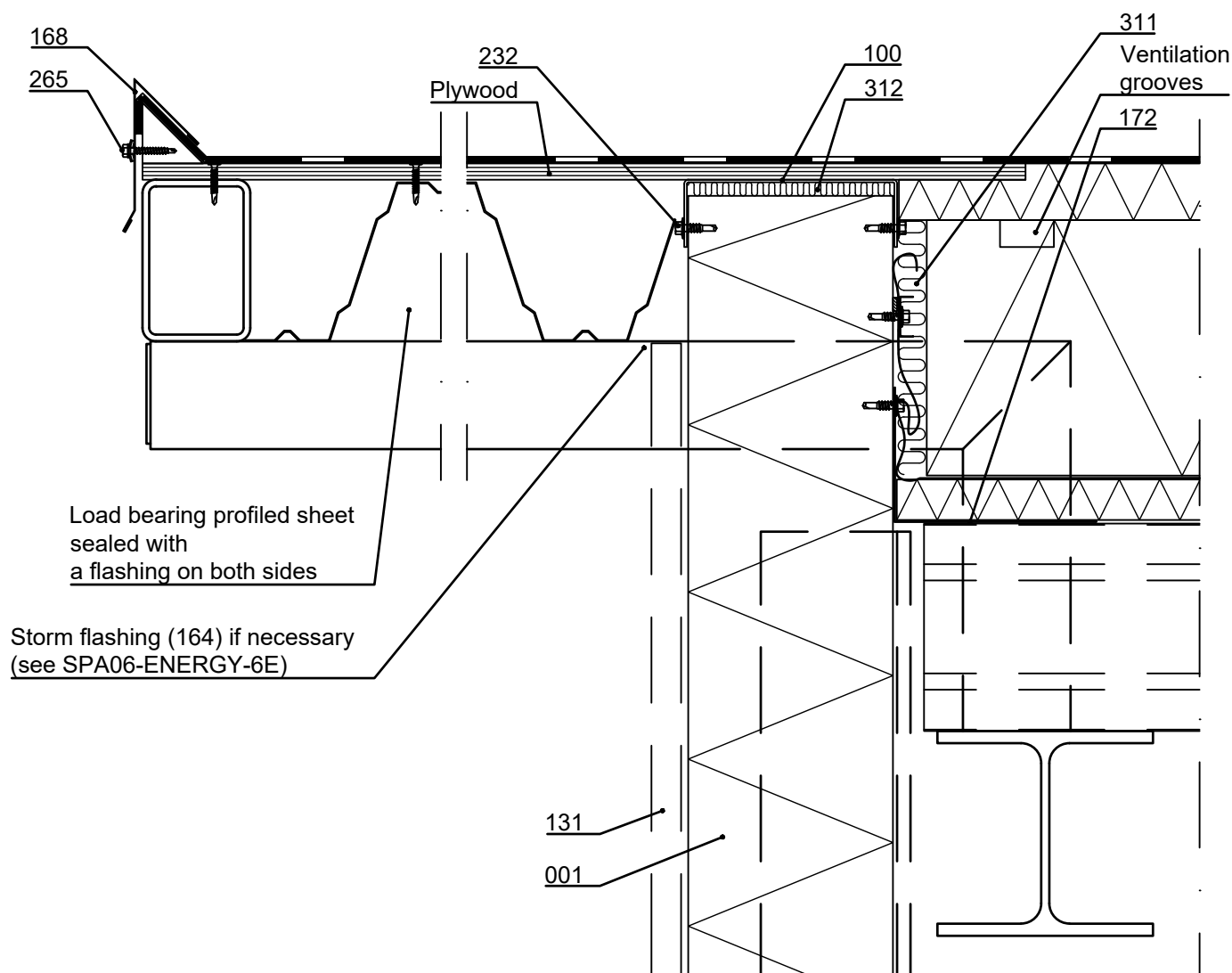
Element is cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

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

- ☐ 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. /EAWS30565/ Mineral wool
- ☐ 312. /EAWS___/ Mineral wool band

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-8E-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.

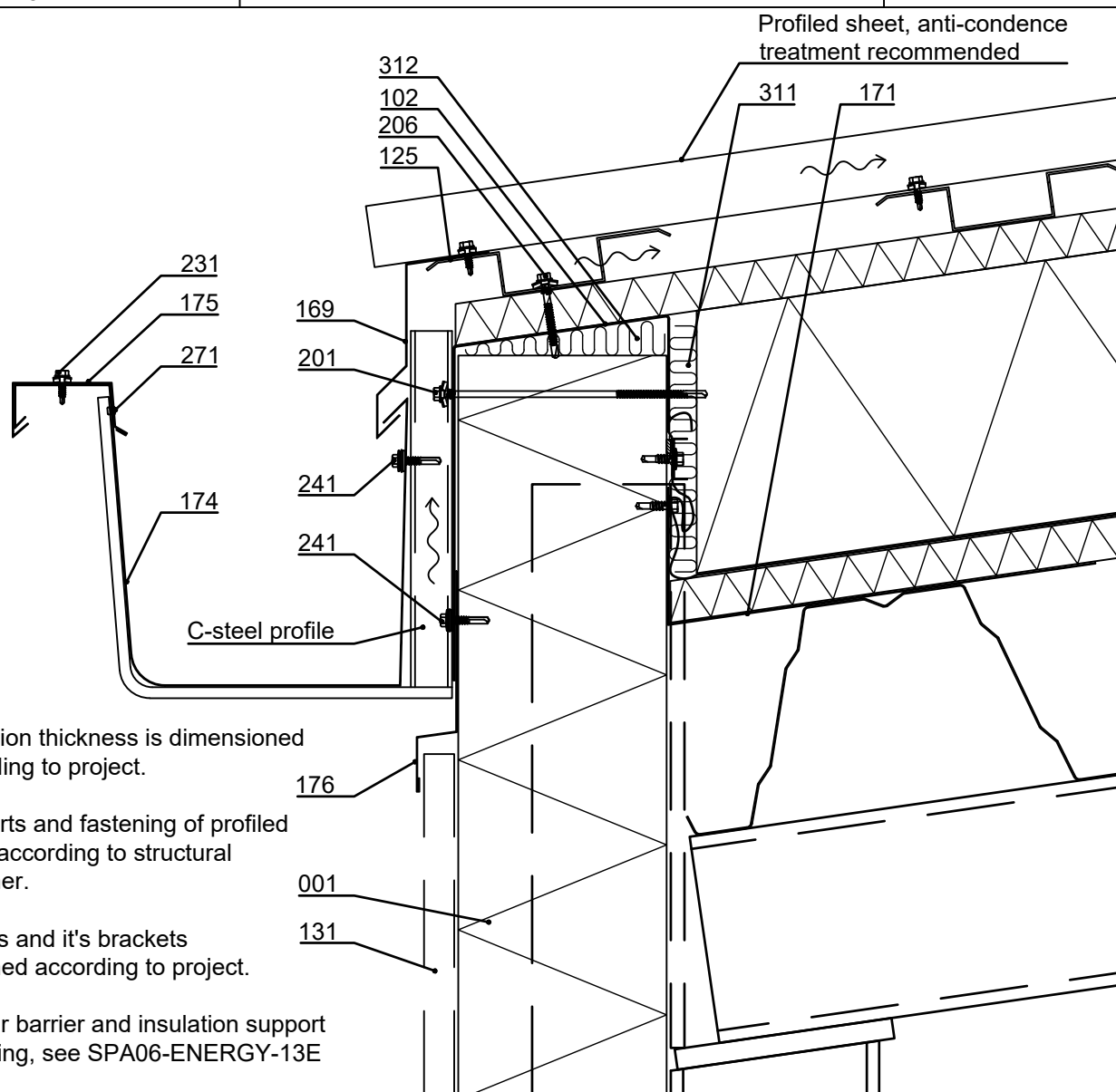
Element is cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

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

- ☐ 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. /EAWS30565/ Mineral wool
- ☐ 312. /EAWS___/ Mineral wool band

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-9E-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.

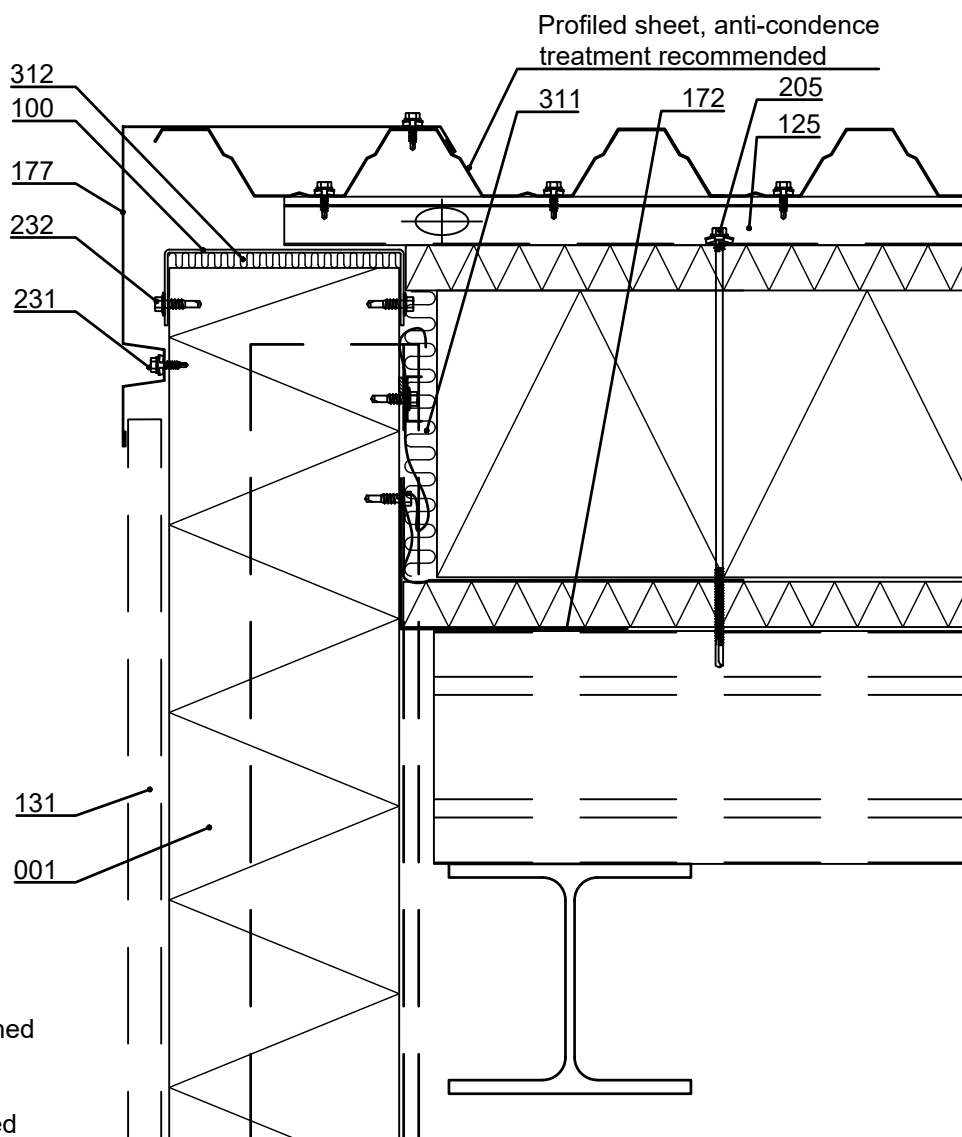
Gutters and it's brackets designed according to project.

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

- | | |
|---|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 176. Storm flashing, t = 0.6 mm, according to project |
| <input type="checkbox"/> 102. Eave purlin, t=2mm, according to project | <input type="checkbox"/> 201. Self-drilling element screw, washer with sealing |
| <input type="checkbox"/> 125. /EA1HP1/ Ventilated hat purlin | <input type="checkbox"/> 206. Self-drilling element screw / fastener screw for roof |
| <input type="checkbox"/> 131. /EA1JV1/ Vertical joint flashing | <input type="checkbox"/> 231. Flashing fastener, washer with sealing |
| <input type="checkbox"/> 169. Eave flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 241. Fastener screw, washer with sealing |
| <input type="checkbox"/> 171. Insulation support flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 271. Rivet |
| <input type="checkbox"/> 174. Gutter, t = 0.6 mm, according to project | <input type="checkbox"/> 311. /EAWS30565/ Mineral wool |
| <input type="checkbox"/> 175. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-10E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



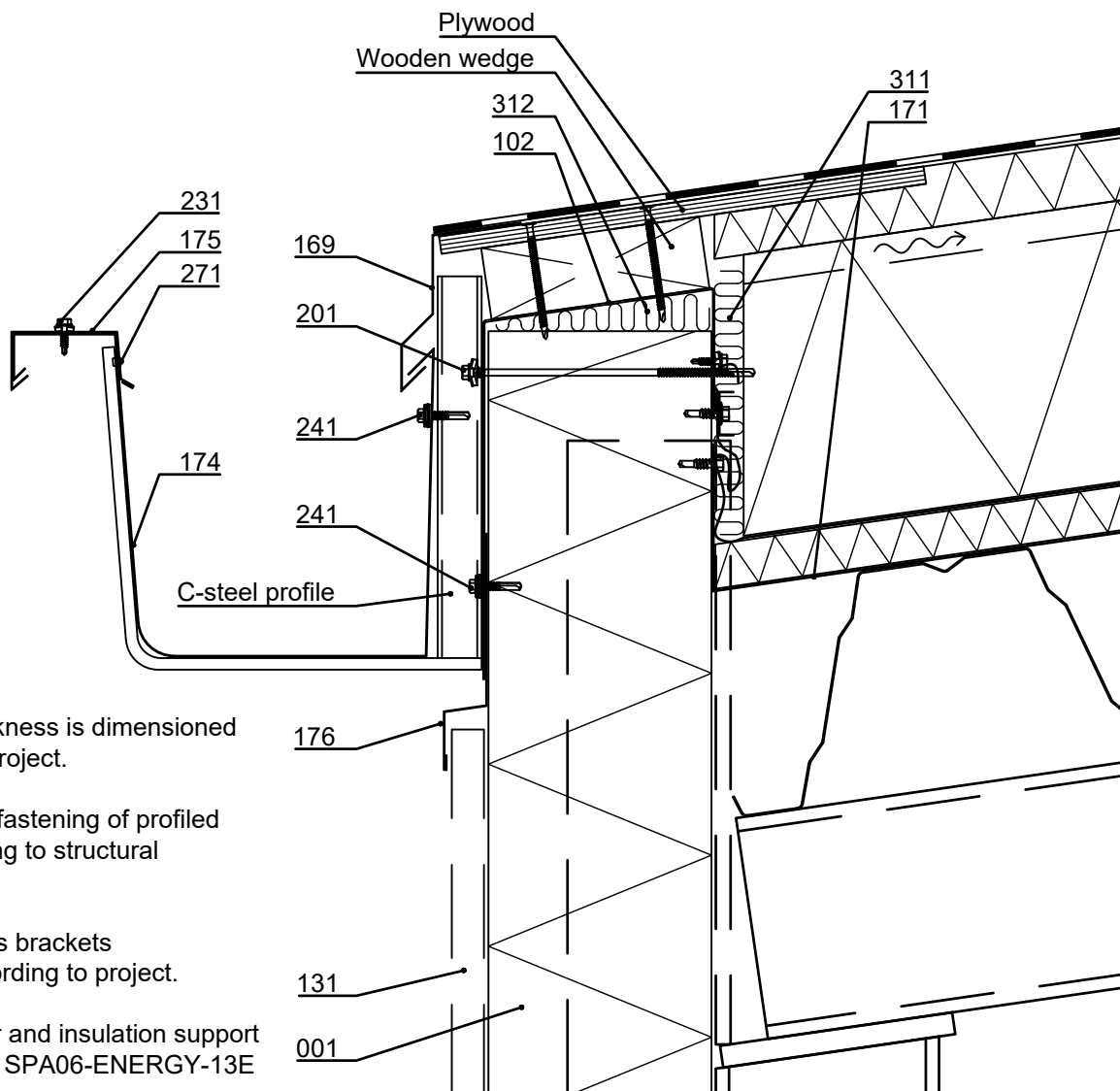
Insulation thickness is dimensioned according to project.

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"/> 205. Self-drilling element screw / fastener screw for roof |
| <input type="checkbox"/> 100. /EA1EPF___/ Purlin | <input type="checkbox"/> 231. Flashing fastener, washer with sealing |
| <input type="checkbox"/> 125. /EA1HP1/ Ventilated hat purlin | <input type="checkbox"/> 232. Flashing fastener, without washer |
| <input type="checkbox"/> 131. /EA1JV1/ Vertical joint flashing | <input type="checkbox"/> 311. /EAWS30565/ Mineral wool |
| <input type="checkbox"/> 172. Insulation support flashing, t = 0.6 mm | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |
| <input type="checkbox"/> 177. Eave flashing, t = 0.6 mm, according to project | |
| <input checked="" type="checkbox"/> Ruukki's delivery | |

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-11E-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.

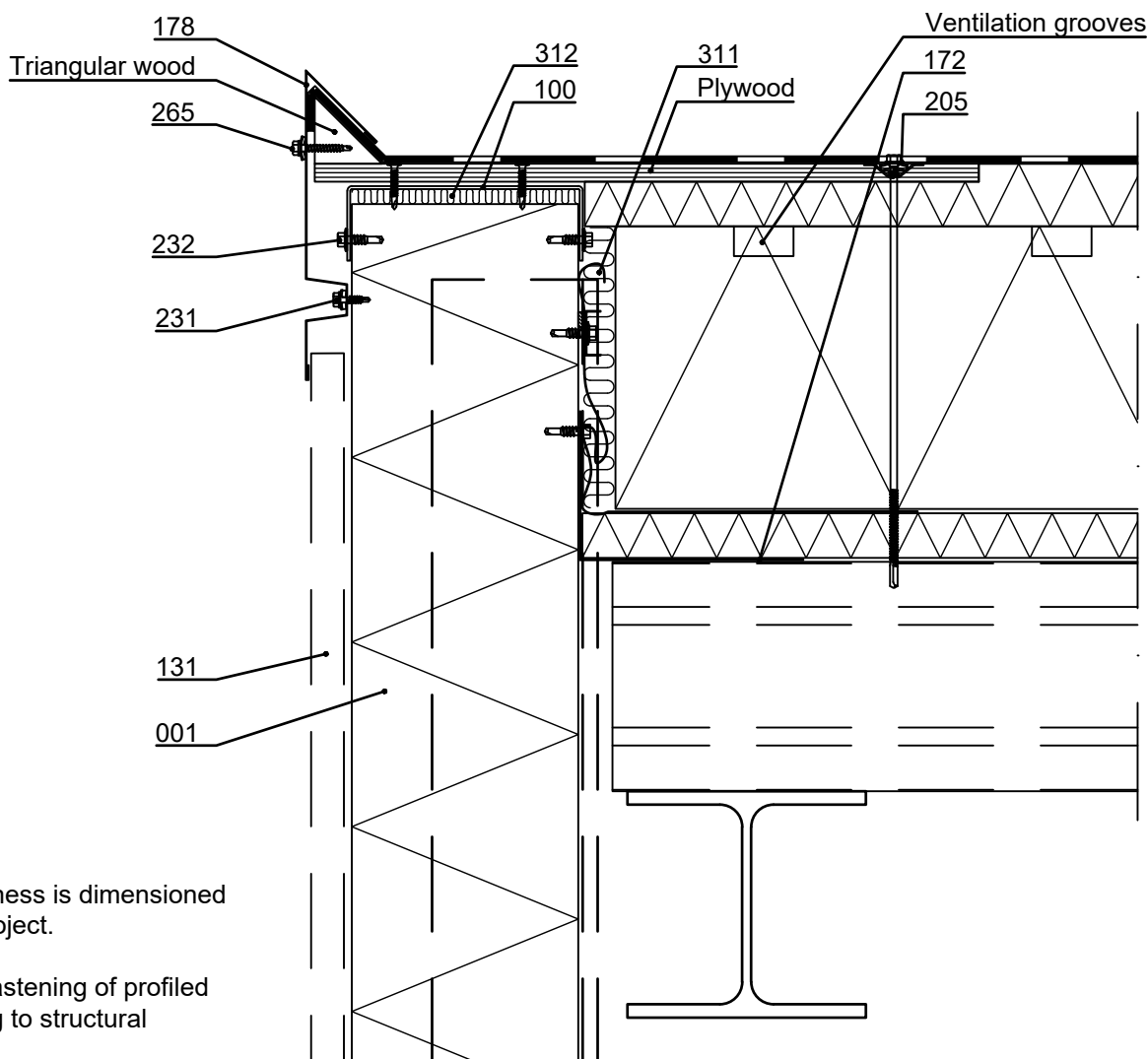
Gutters and it's brackets designed according to project.

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

- | | |
|---|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 176. Storm flashing, t = 0.6 mm, according to project |
| <input type="checkbox"/> 102. Eave purlin, t=2mm, according to project | <input type="checkbox"/> 201. Self-drilling element screw, washer with sealing |
| <input type="checkbox"/> 131. /EA1JV1/ Vertical joint flashing | <input type="checkbox"/> 231. Flashing fastener, washer with sealing |
| <input type="checkbox"/> 169. Eave flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 241. Fastener screw, washer with sealing |
| <input type="checkbox"/> 171. Insulation support flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 271. Rivet |
| <input type="checkbox"/> 174. Gutter, t = 0.6 mm, according to project | <input type="checkbox"/> 311. /EAWS30565/ Mineral wool |
| <input type="checkbox"/> 175. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-12E-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"/> 231. Flashing fastener, washer with sealing |
| <input type="checkbox"/> 100. /EA1EPF___/ Purlin | <input type="checkbox"/> 232. Flashing fastener, without washer |
| <input type="checkbox"/> 131. /EA1JV1/ Vertical joint flashing | <input type="checkbox"/> 265. Fastener screw to wood, washer with sealing |
| <input type="checkbox"/> 172. Insulation support flashing, t = 0.6 mm | <input type="checkbox"/> 311. /EAWS30565/ Mineral wool |
| <input type="checkbox"/> 178. Eave flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |
| <input type="checkbox"/> 205. Self-drilling element screw / fastener screw for roof | |

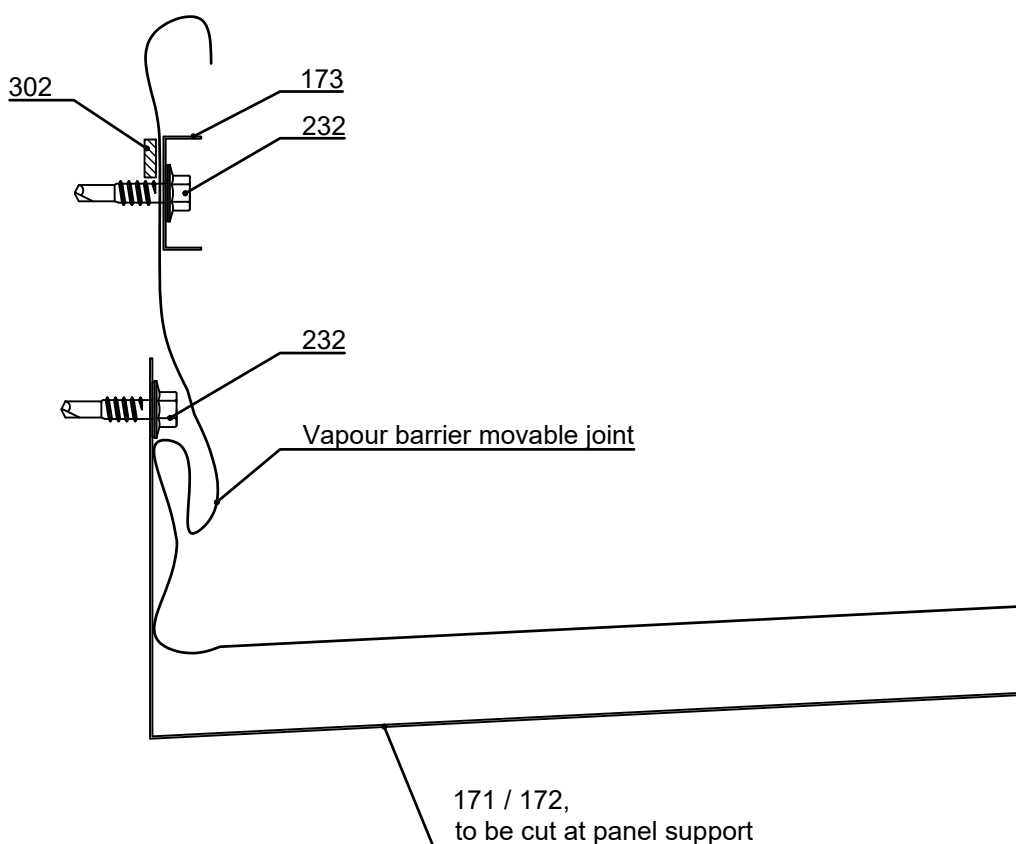
☒ Ruukki's delivery



Contents of drawing

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

Date 25.05.2023	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

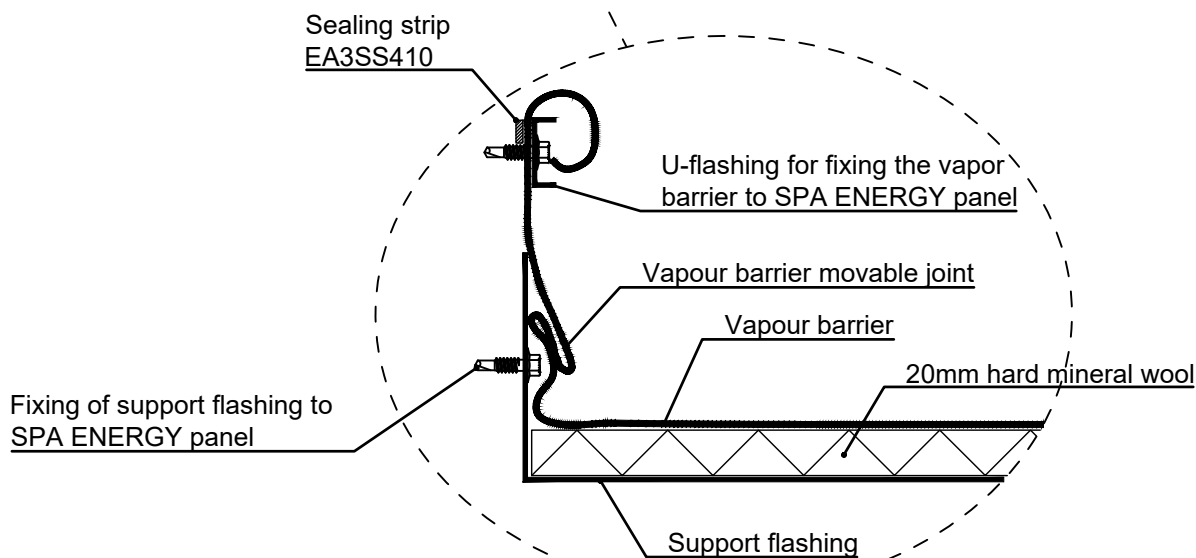
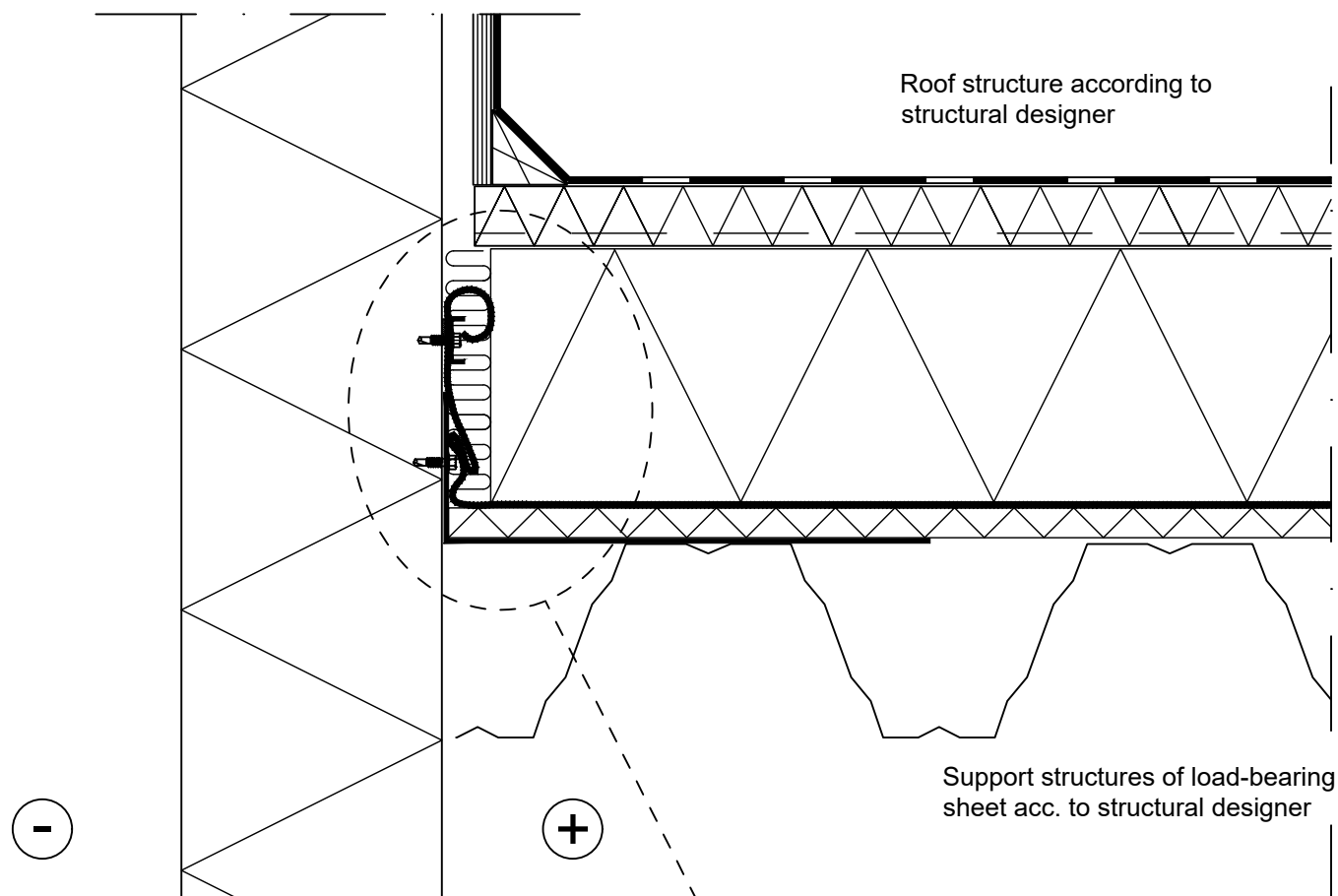
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Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-14E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

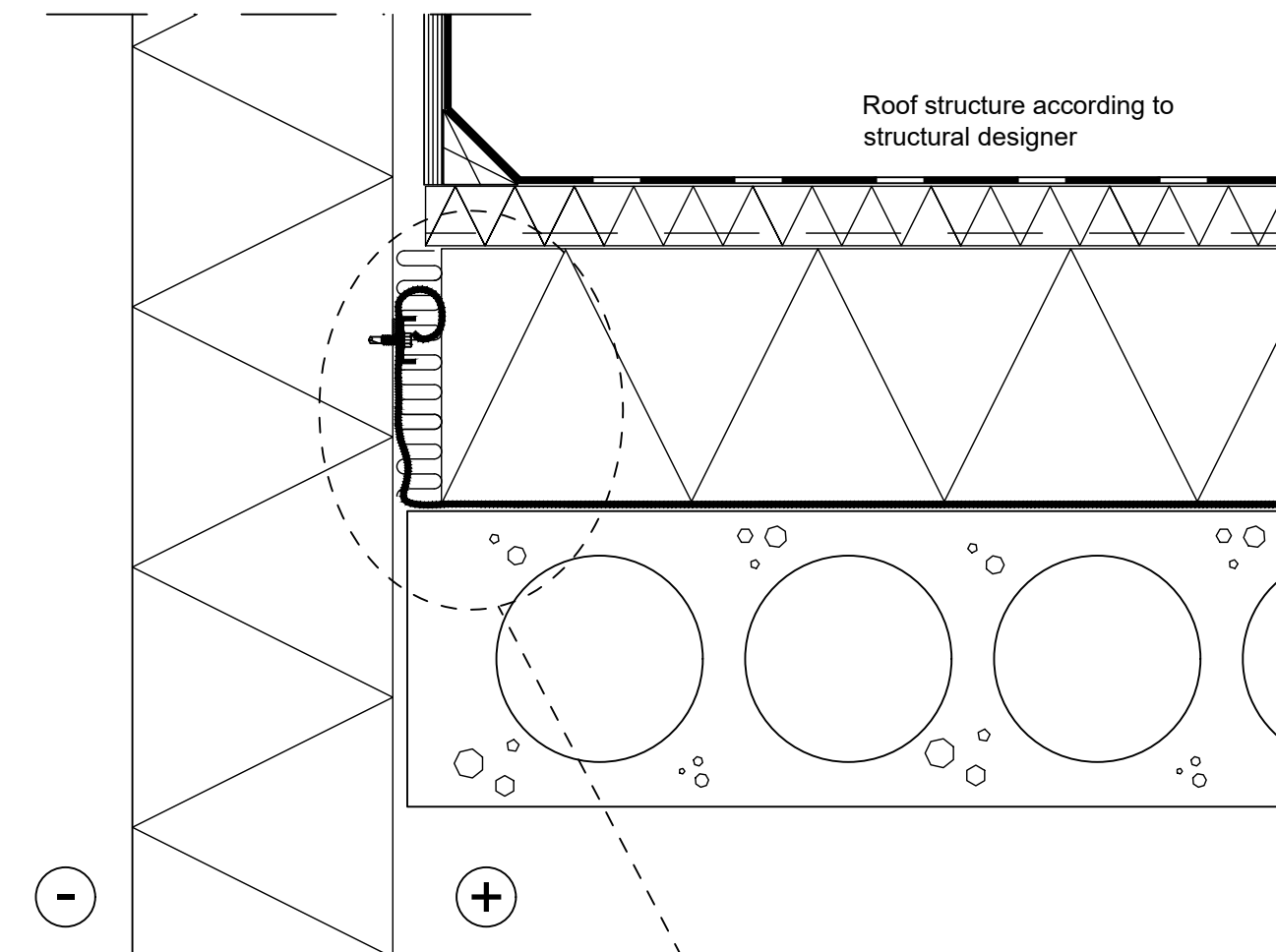




Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-15E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	



Sealing strip
EA3SS410

U-flashing for fixing the vapor
barrier to SPA ENERGY panel

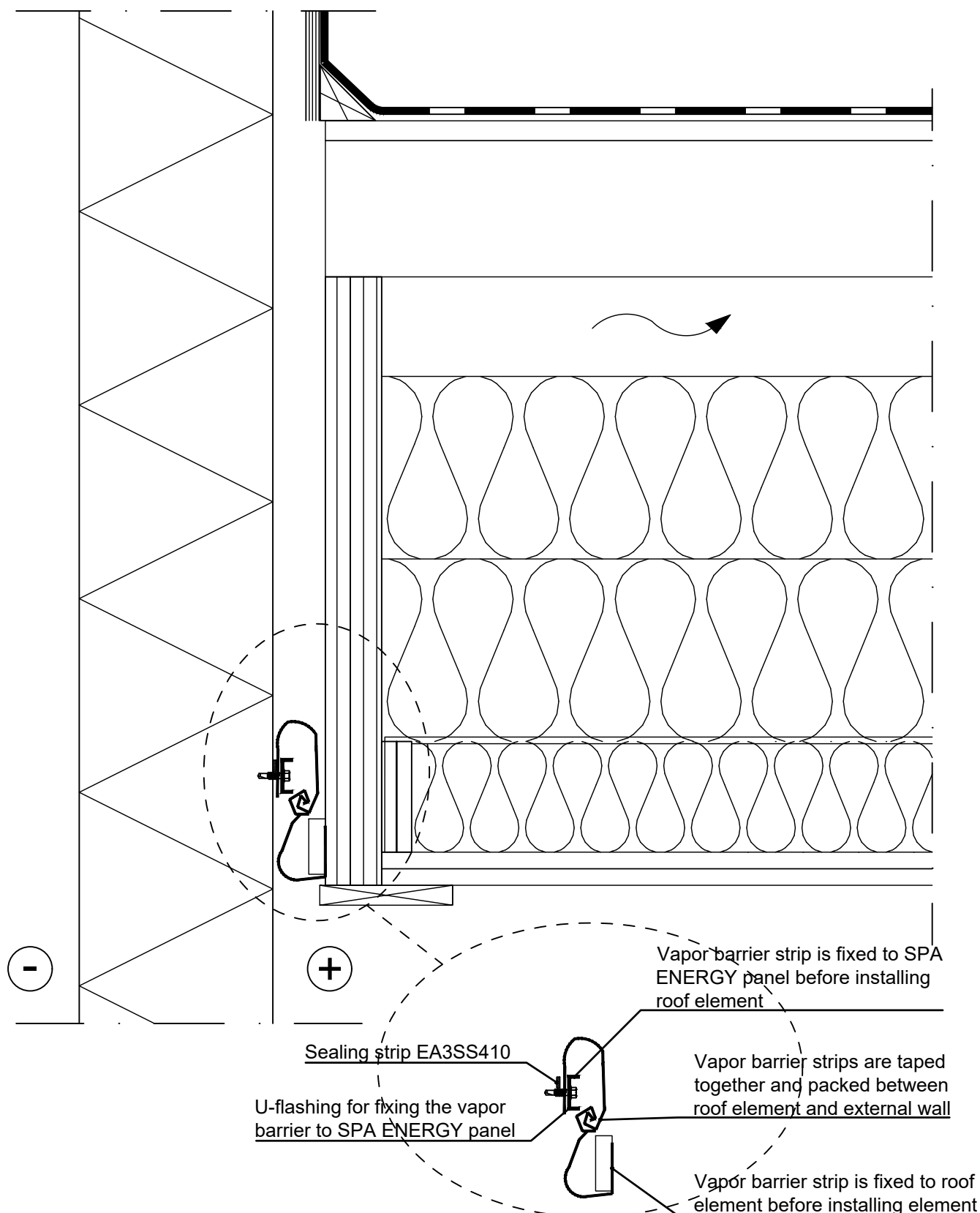
Vapour barrier



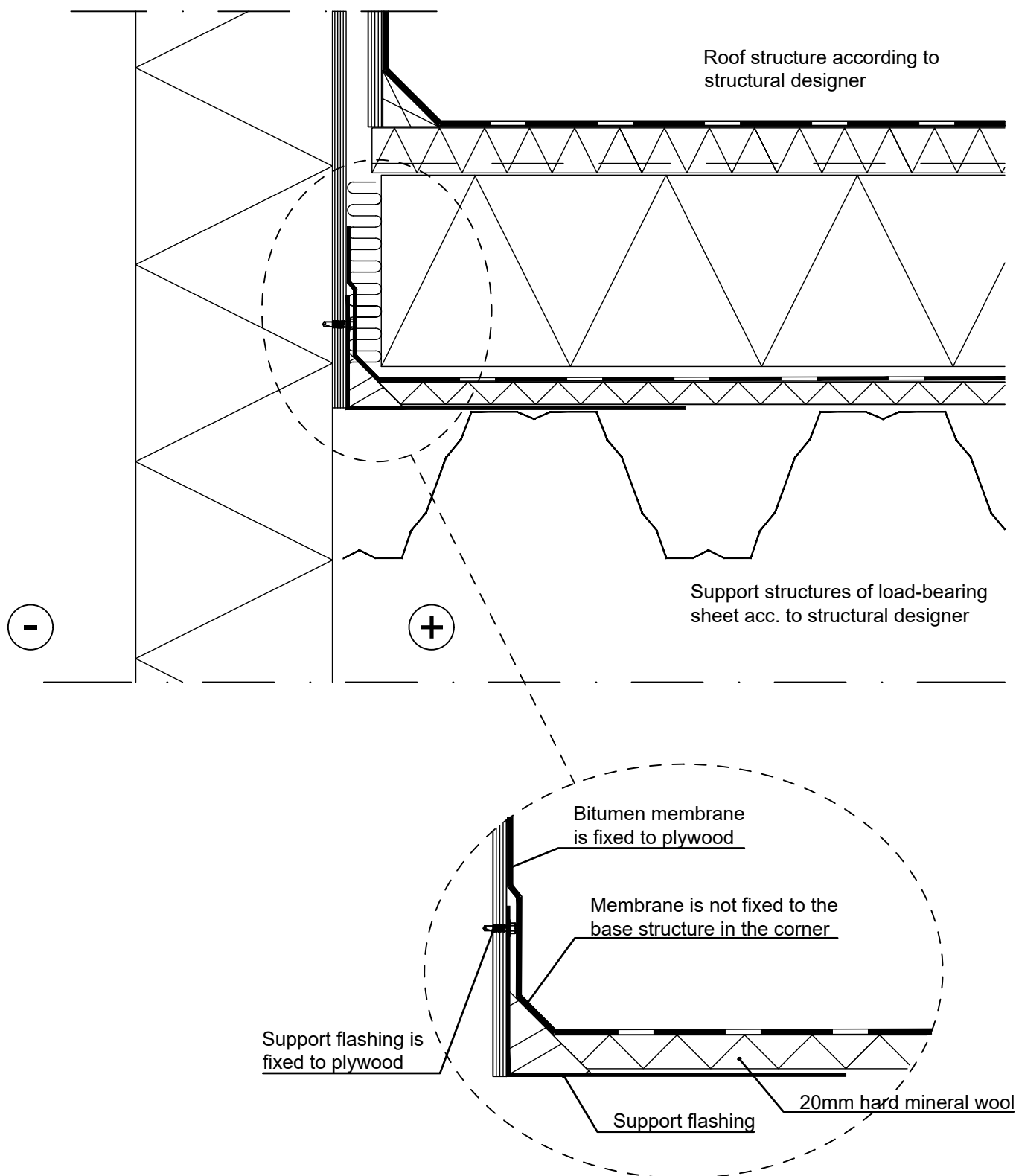
Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-16E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	



Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-17E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

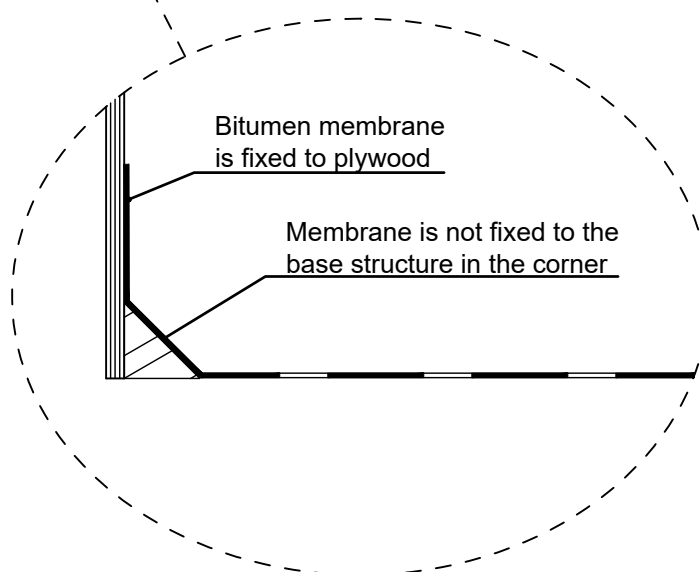
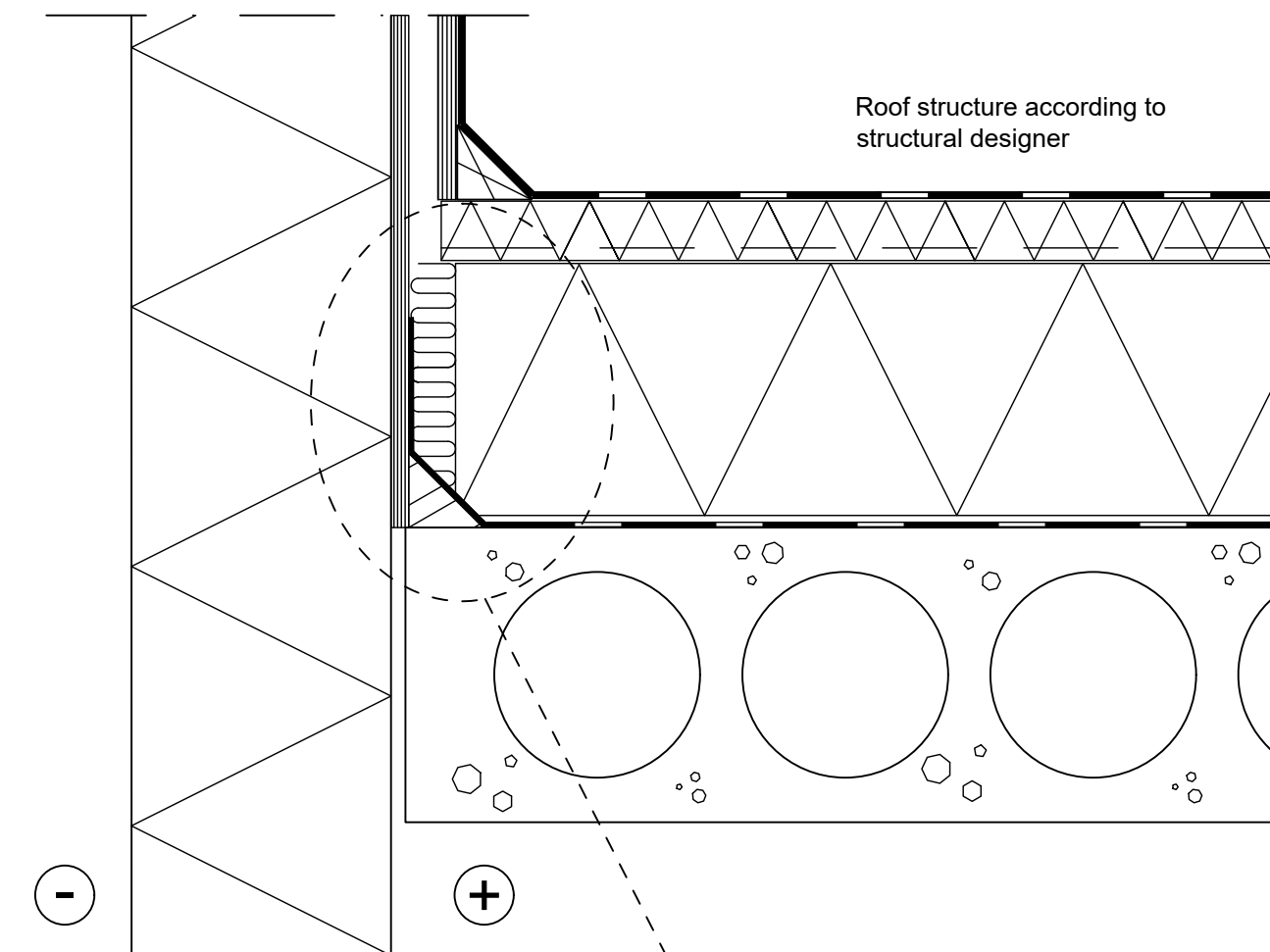




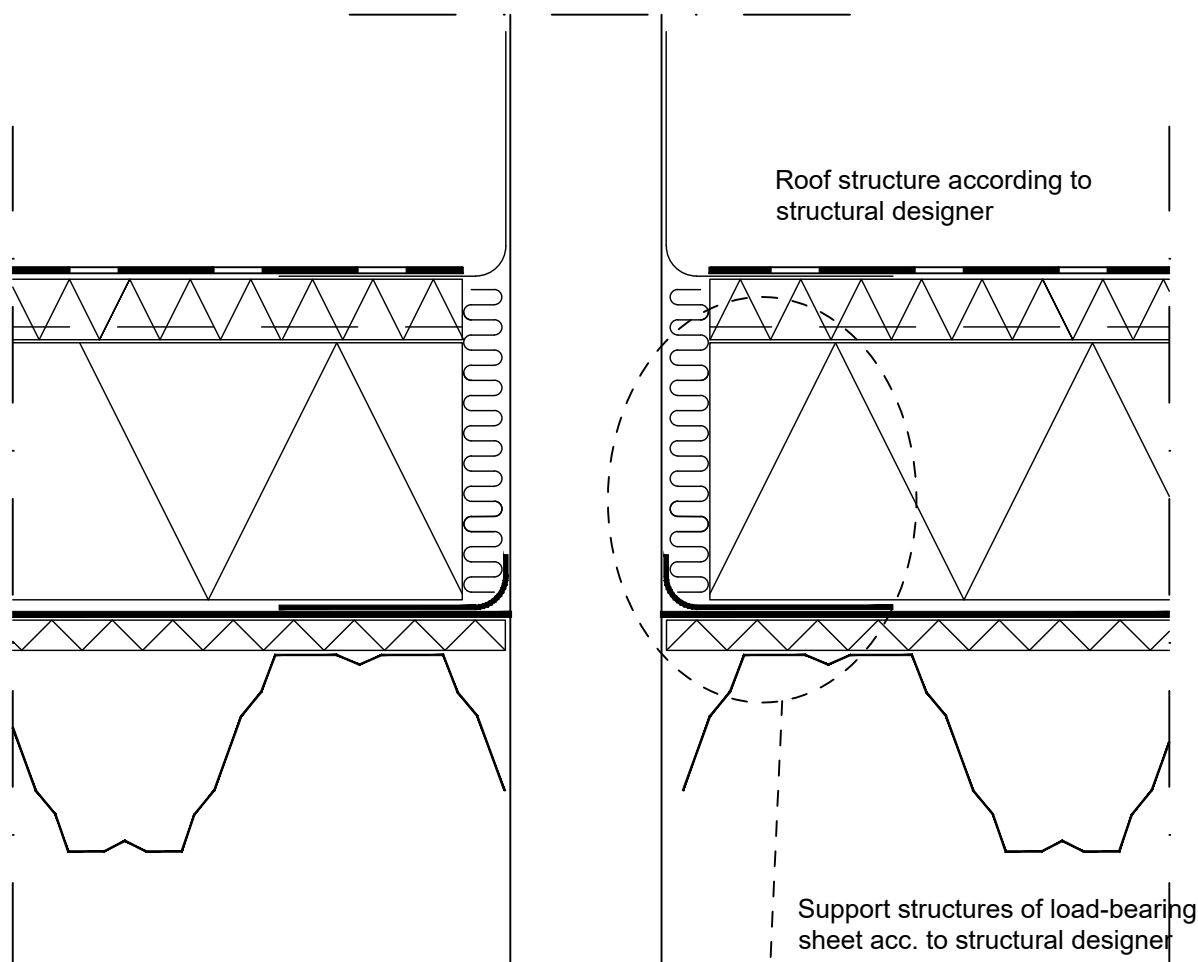
Contents of drawing

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

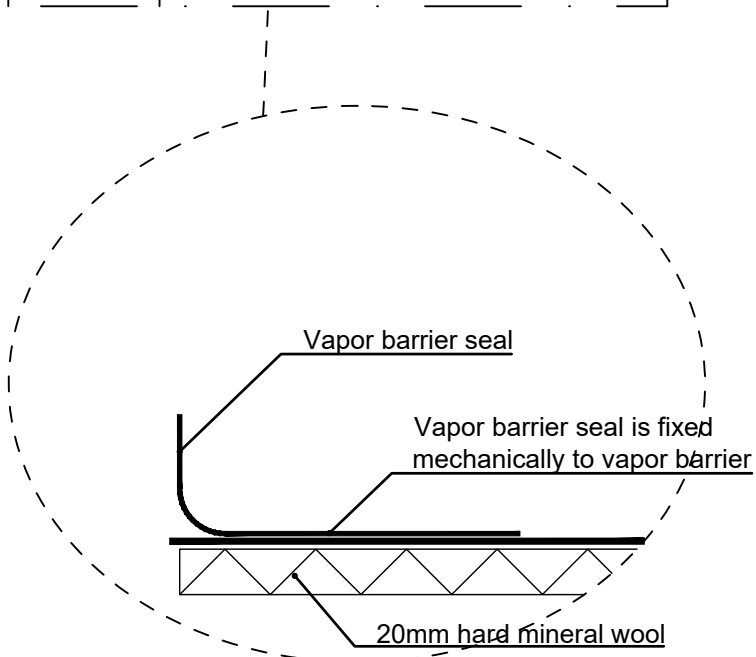
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-18E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-19E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Hole in the vapor barrier is cut smaller than pass-through

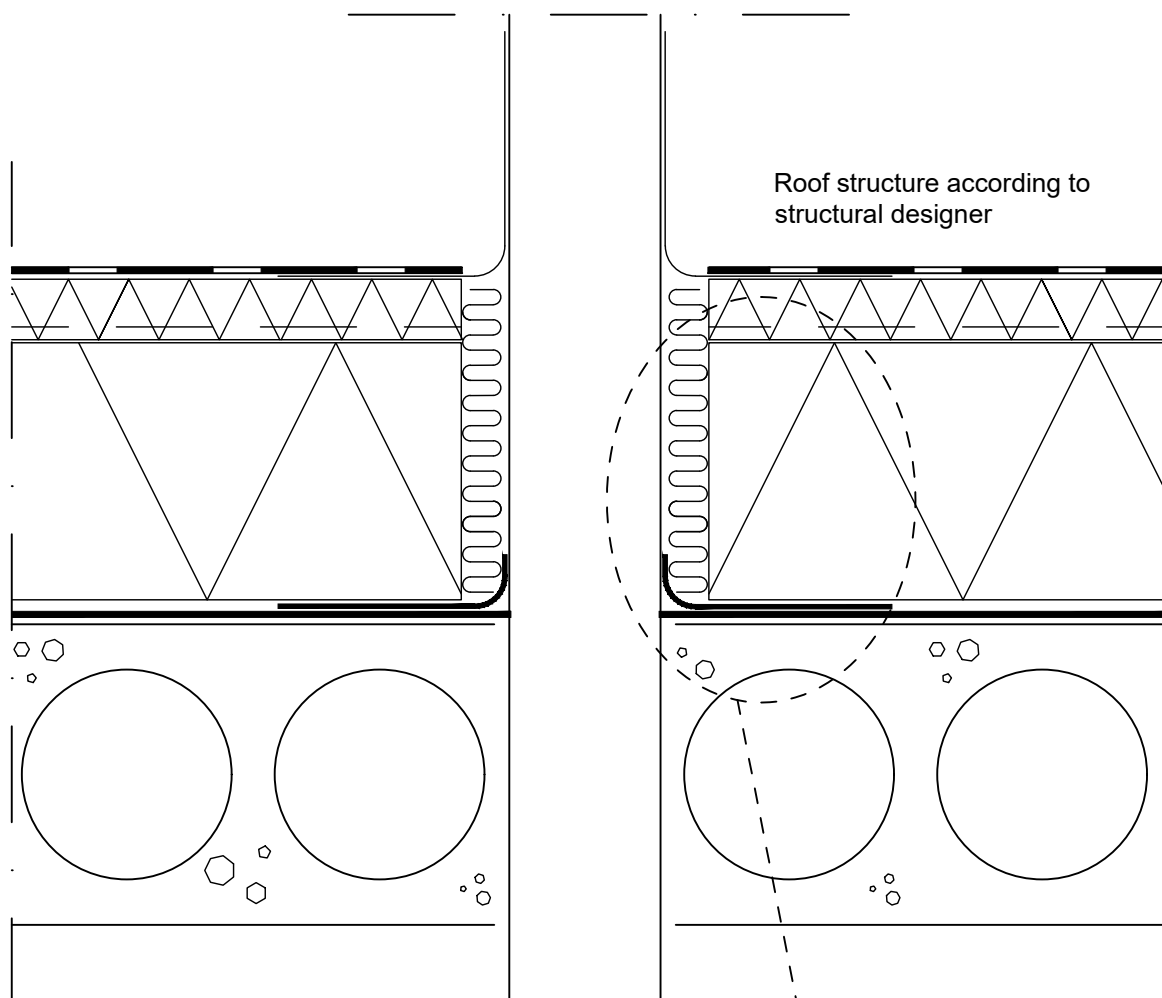




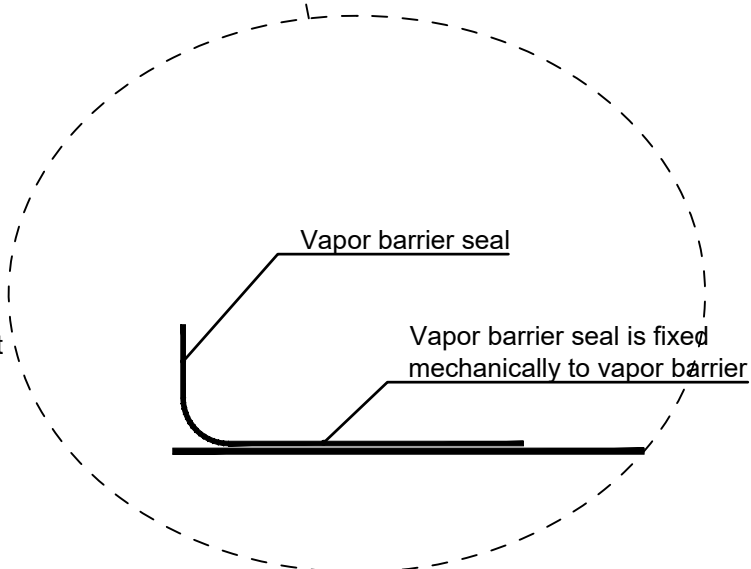
Contents of drawing

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

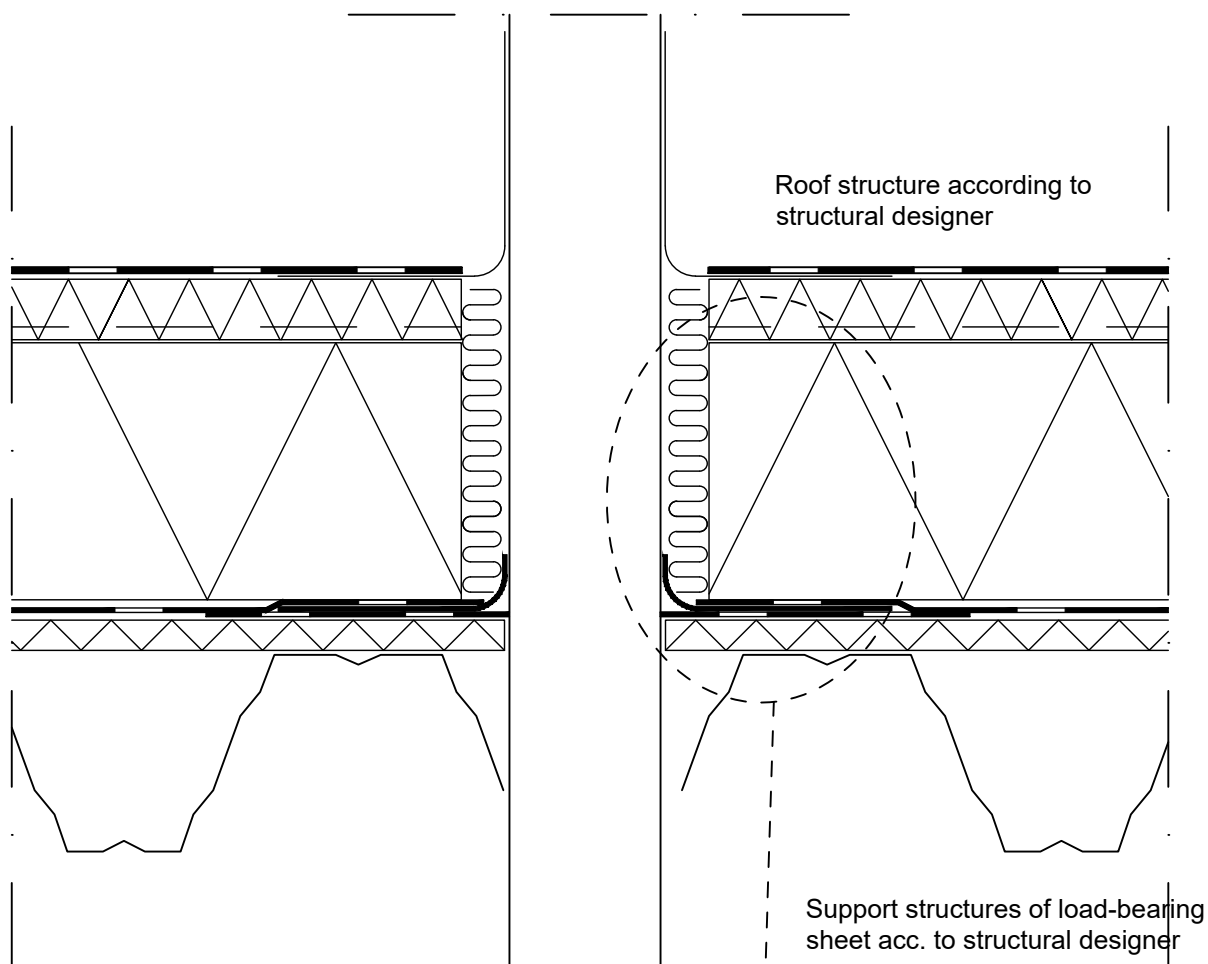
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-20E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



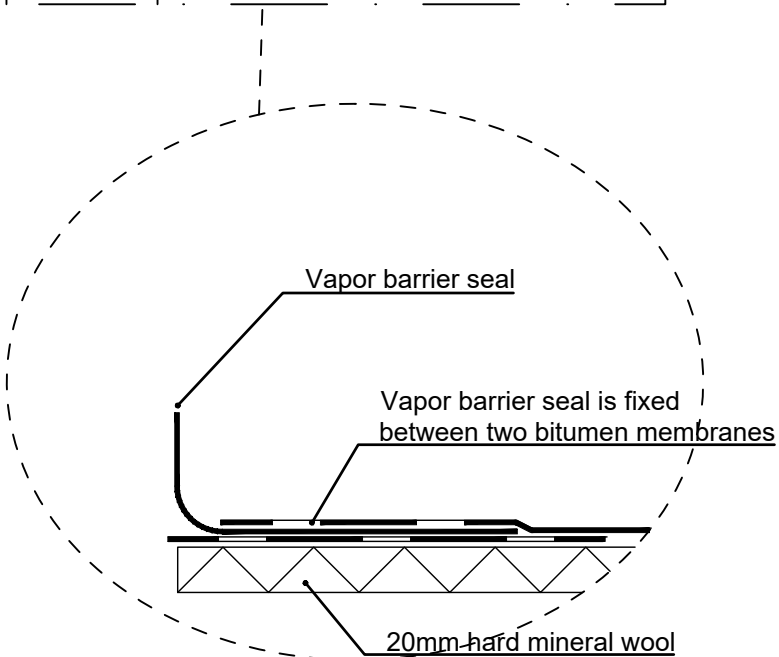
Hole in the vapor barrier is cut
smaller than pass-through



Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-21E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.



Hole in the vapor barrier is cut smaller than pass-through

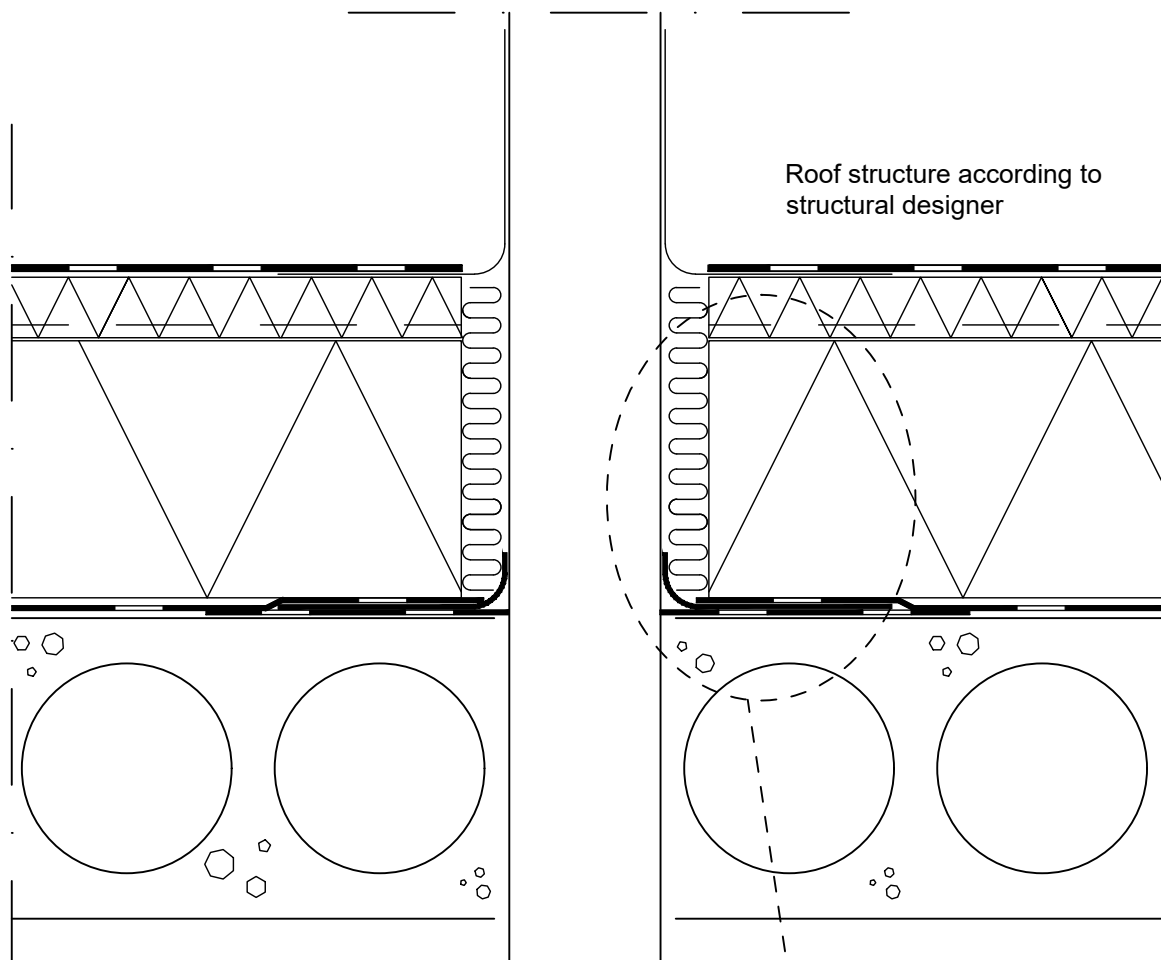




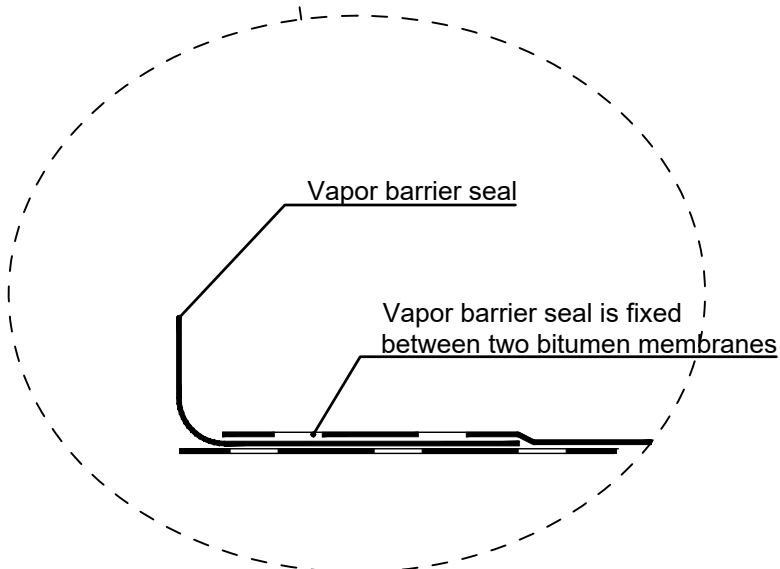
Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-22E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	



Hole in the vapor barrier is cut
smaller than pass-through

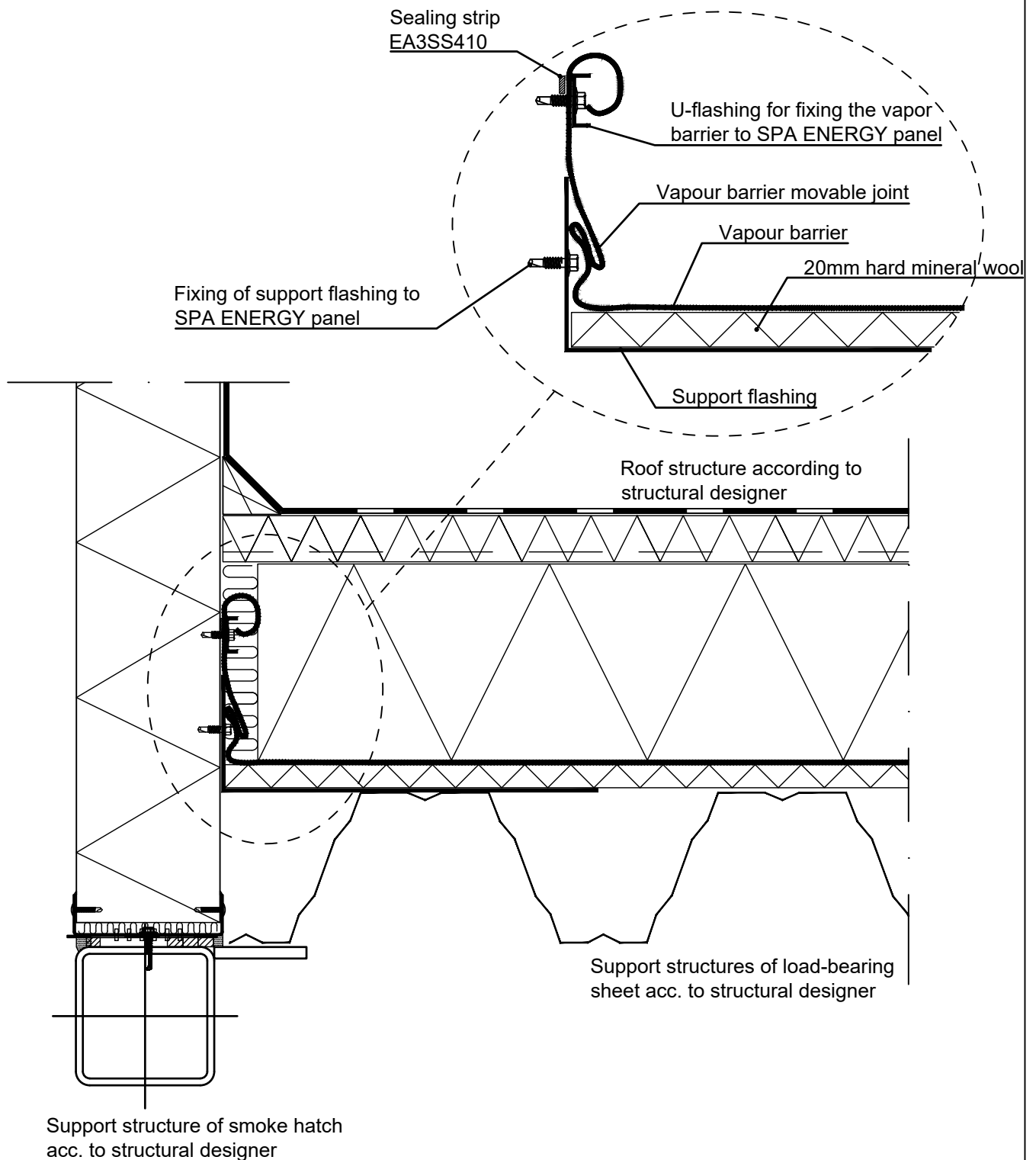




Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-23E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	





Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-24E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	

Sealing strip
EA3SS410

U-flashing for fixing the vapor
barrier to SPA ENERGY panel

Vapour barrier

Roof structure according to
structural designer

Ruukki silicone

Ruukki silicone

Ruukki silicone

Ruukki silicone

Expanding plinth sealing

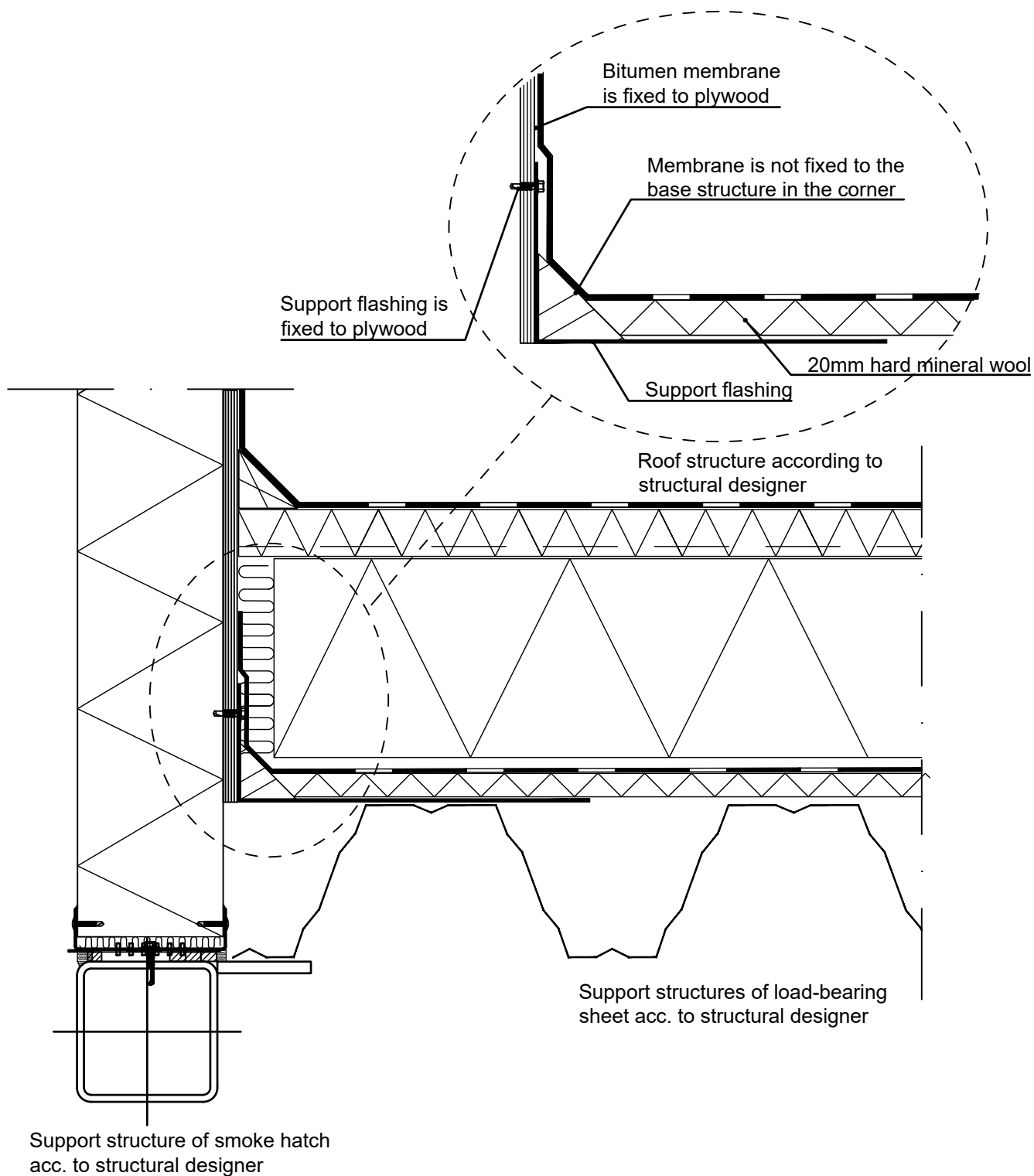
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Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-25E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	

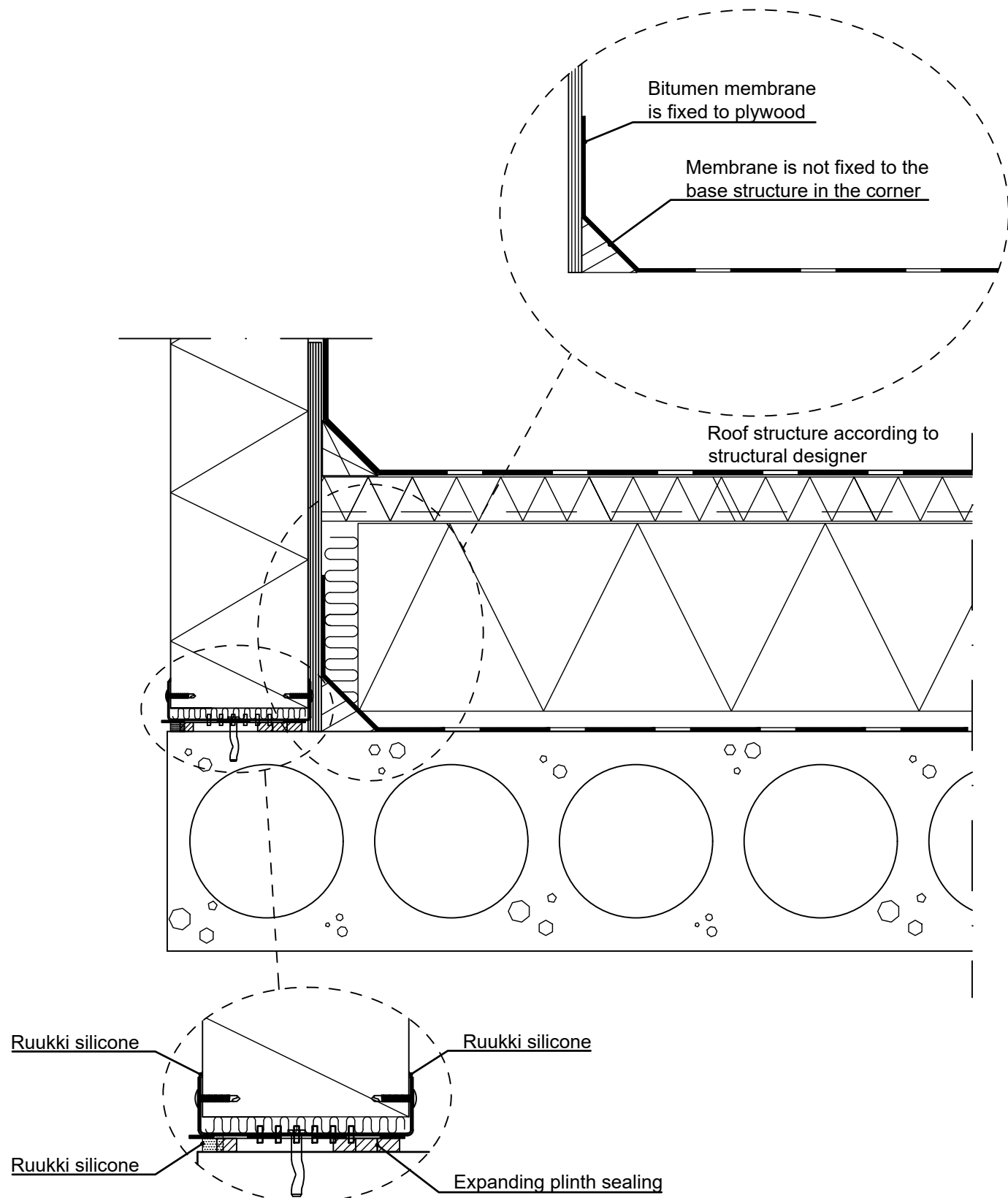




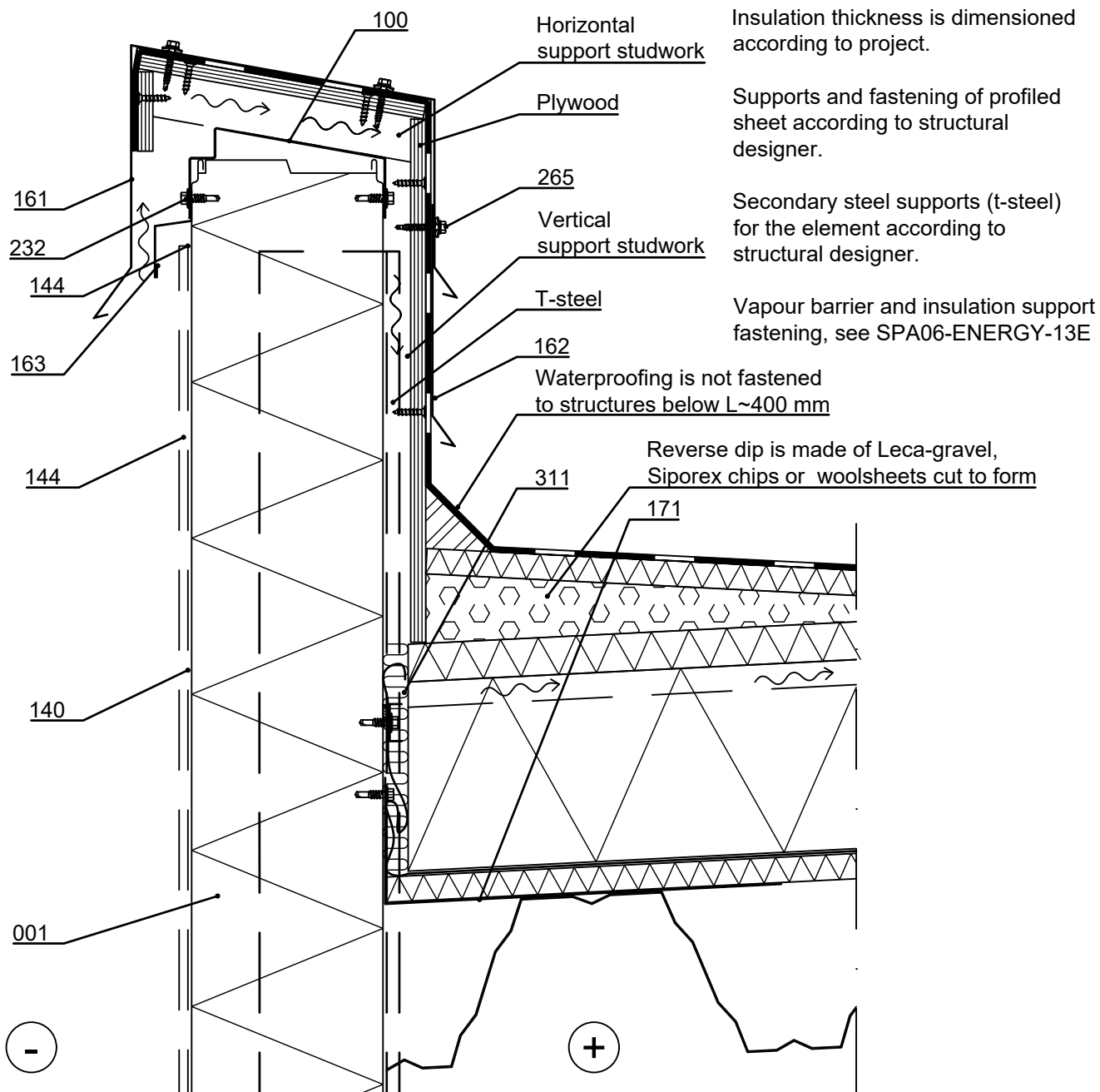
Contents of drawing

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

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-26E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building	File nr.	



Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

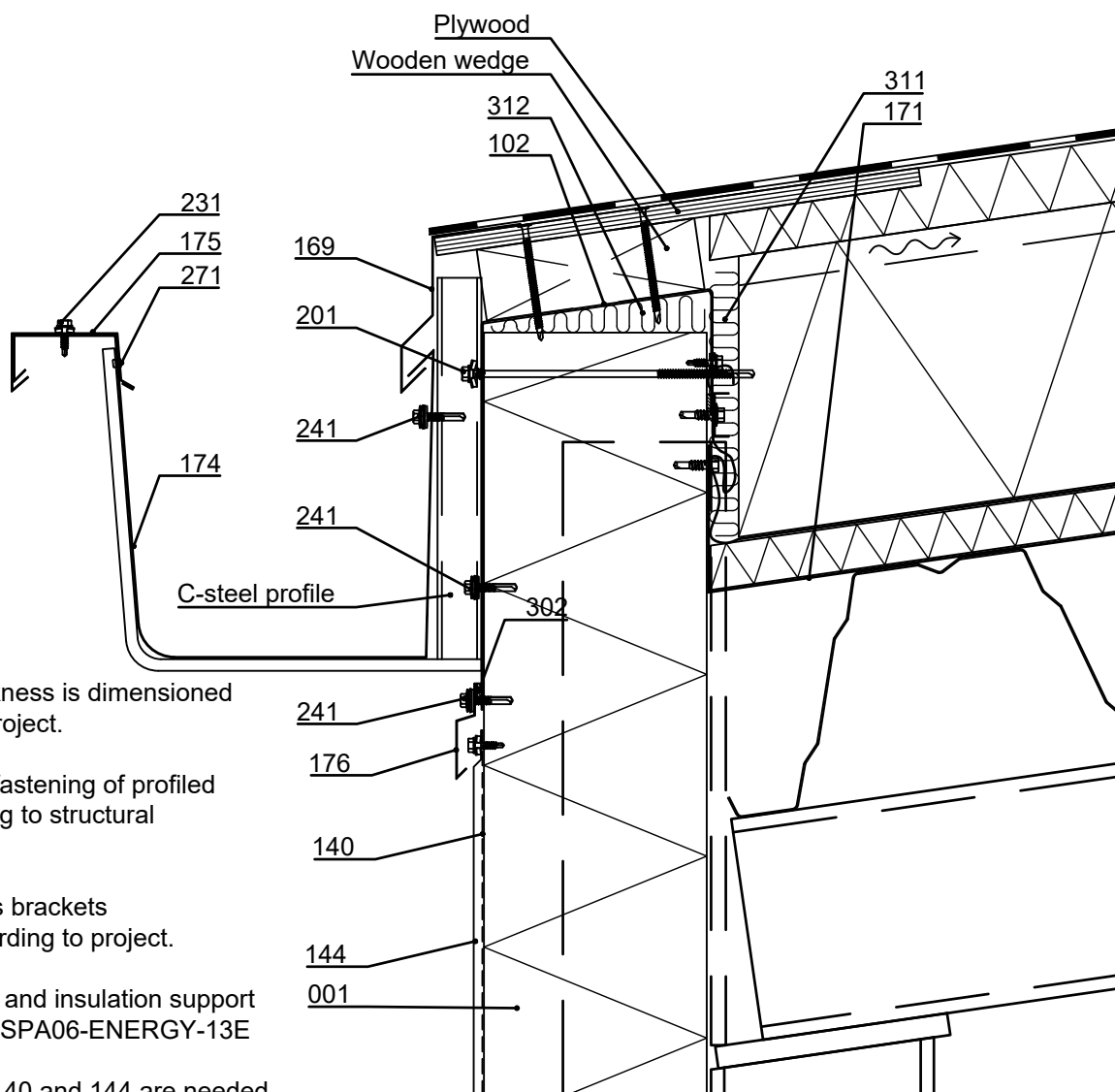


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1EPF___/ Purlin
- ☐ 140. /EA1JVB4/ Vertical bottom flashing Invisible
- ☐ 144. /EA1JVII/ Vertical joint flashing Invisible
- ☐ 161. Eave flashing, t = 0.6 mm, according to project
- ☐ 162. Cover flashing, t = 0.6 mm, according to project
- ☐ 163. Storm flashing, t = 0.6 mm, according to project

- ☐ 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

☒ Ruukki's delivery

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA06-ENERGY-31E-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 it's brackets designed according to project.

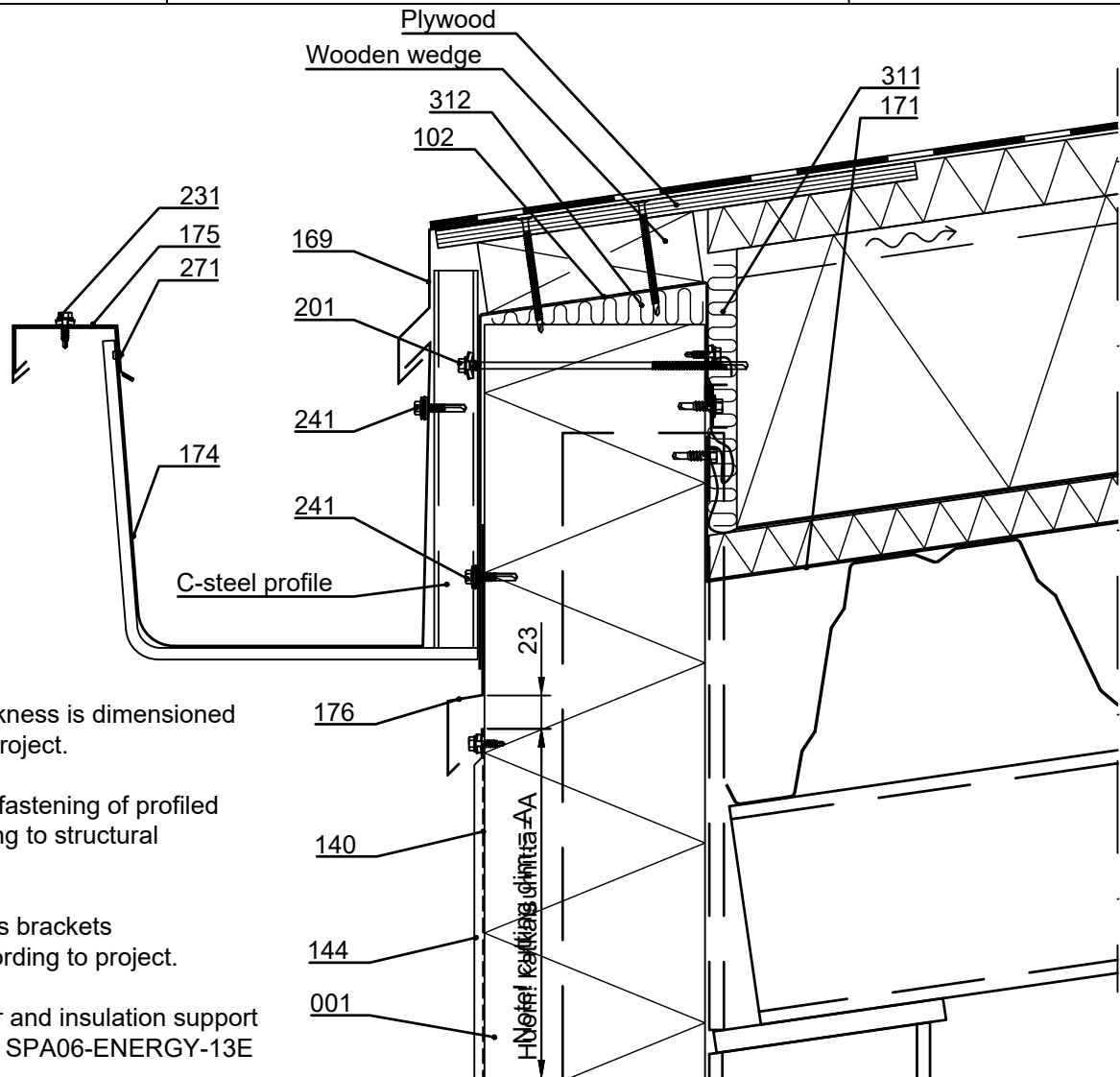
Vapour barrier and insulation support fastening, see SPA06-ENERGY-13E

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.

- | | |
|---|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 176. Storm flashing, t = 0.6 mm, according to project |
| <input type="checkbox"/> 102. Eave purlin, t = 2 mm, according to project | <input type="checkbox"/> 201. Self-drilling screw, washer with sealing |
| <input type="checkbox"/> 140. /EA1JVB4/ Vertical bottom flashing Invisible | <input type="checkbox"/> 231. Flashing fastener, washer with sealing |
| <input type="checkbox"/> 144. /EA1JVII/ Vertical joint flashing Invisible | <input type="checkbox"/> 241. Fastener screw, washer with sealing |
| <input type="checkbox"/> 169. Eave flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 271. Rivet |
| <input type="checkbox"/> 171. Insulation support fl., t = 0.6 mm, acc. to project | <input type="checkbox"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 174. Gutter, t = 0.6 mm, according to project | <input type="checkbox"/> 311. /EAWS5657850/ Mineral wool roll |
| <input type="checkbox"/> 175. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS___/ Mineral wool roll |

☒ Ruukki's delivery

Date 25.05.2023	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 it's brackets designed according to project.

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

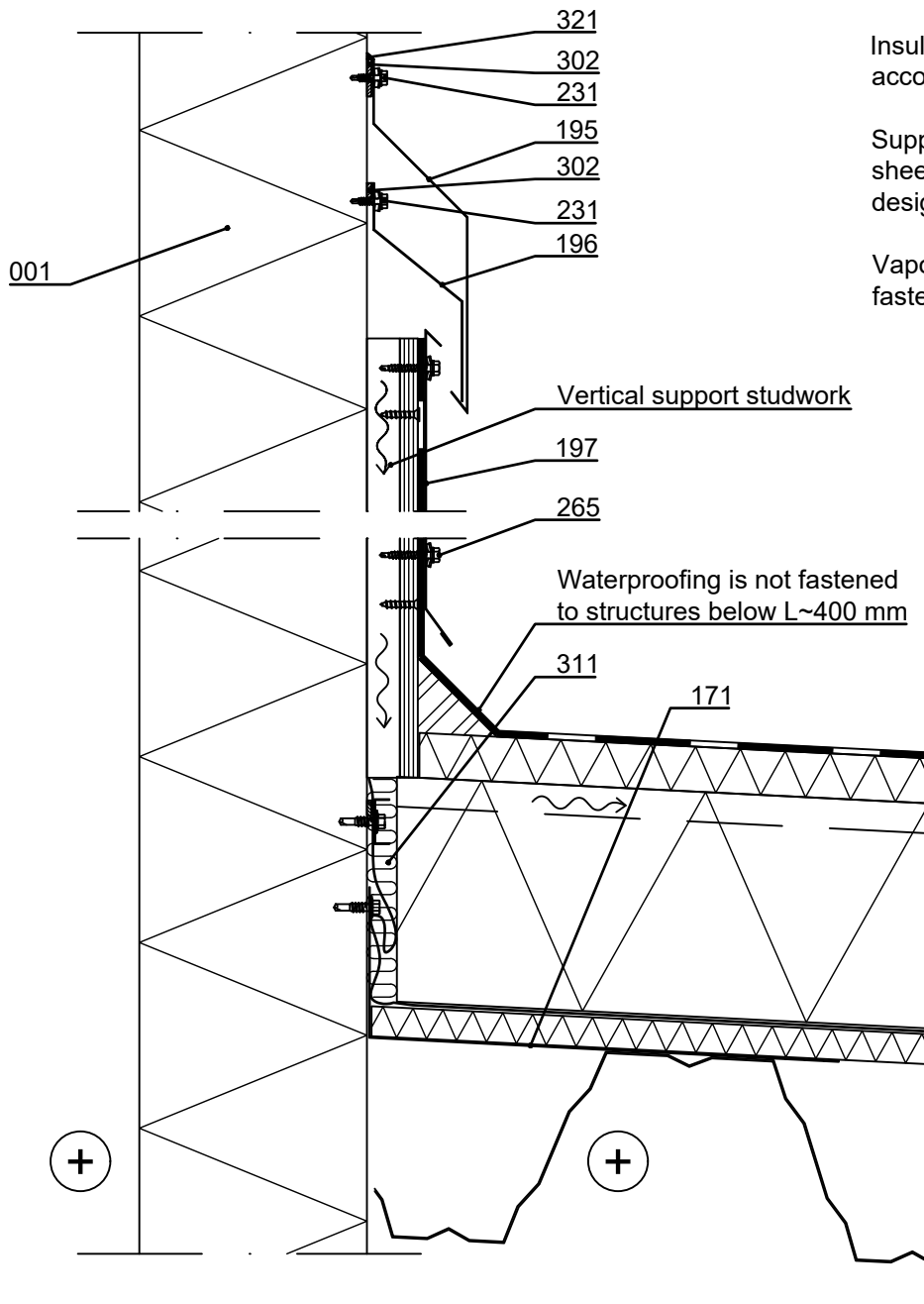
NOTE! If lists 140 and 144 are needed to shorten, then the bottom strip 140 is cut from the upper edge 180mm shorter than the shortened vertical seam strip 144. List 144 is cut from the bottom edge (A) and the cut edge is sanded flat. Vertical seam list 144 installed from the bottom up.

- | | |
|---|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 176. Storm flashing, t = 0.6 mm, according to project |
| <input type="checkbox"/> 102. Eave purlin, t = 2 mm, according to project | <input type="checkbox"/> 201. Self-drilling screw, washer with sealing |
| <input type="checkbox"/> 140. /EA1JVB4/ Vertical bottom flashing Invisible | <input type="checkbox"/> 231. Flashing fastener, washer with sealing |
| <input type="checkbox"/> 144. /EA1JVII/ Vertical joint flashing Invisible | <input type="checkbox"/> 241. Fastener screw, washer with sealing |
| <input type="checkbox"/> 169. Eave flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 271. Rivet |
| <input type="checkbox"/> 171. Insulation support fl., t = 0.6 mm, acc. to project | <input type="checkbox"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 174. Gutter, t = 0.6 mm, according to project | <input type="checkbox"/> 311. /EAWS5657850/ Mineral wool roll |
| <input type="checkbox"/> 175. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS___/ Mineral wool roll |

☒ Ruukki's delivery

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

Date 25.05.2023	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

- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 171. Insulation support flashing, t = 0.6 mm, according to project
- ☐ 195. Drip flashing, t = 0.6 mm, according to project
- ☐ 196. Support flashing, t = 0.6 mm, according to project
- ☐ 197. Cover flashing, t = 0.6 mm, according to project
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 265. Fastener screw to wood, washer with sealing
- ☐ 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- ☐ 311. /EAWS30565/ Mineral wool
- ☐ 321. Ruukki silicone

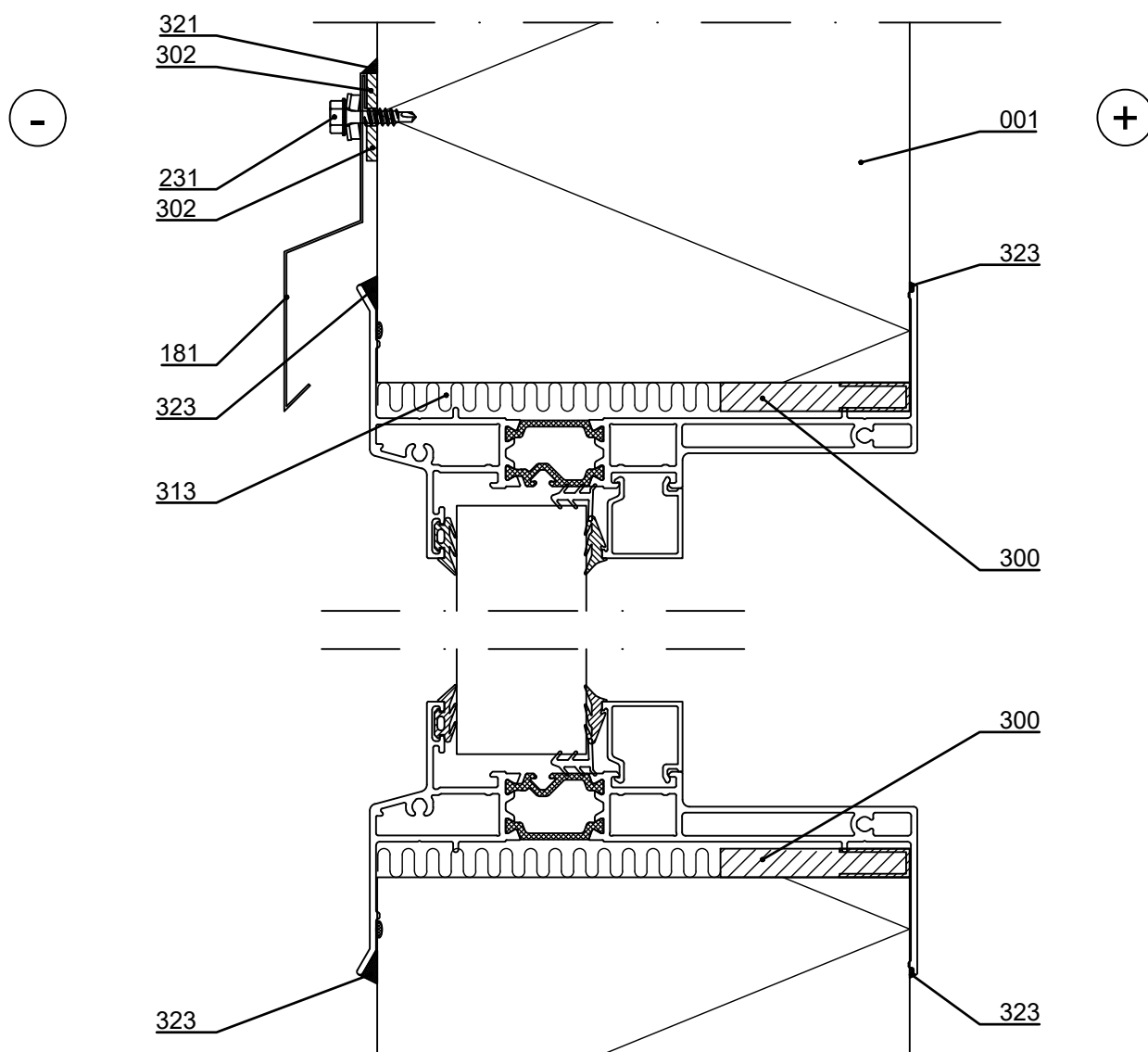
☒ Ruukki's delivery

Date 25.05.2023	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 elements.

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

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



- | | |
|---|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 181. Drip flashing, t = 0.6 mm, according to project | <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> (for demanding climate conditions e.g. coastal areas) |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band | <input type="checkbox"/> 313. Mineral wool band |
| <input type="checkbox"/> (plastic tape facing inside) | <input type="checkbox"/> (in system window delivery) |
| | <input type="checkbox"/> 321. Ruukki silicone |
| | <input type="checkbox"/> 323. Ruukki silicone |
- ☒ Ruukki's delivery



Contents of drawing

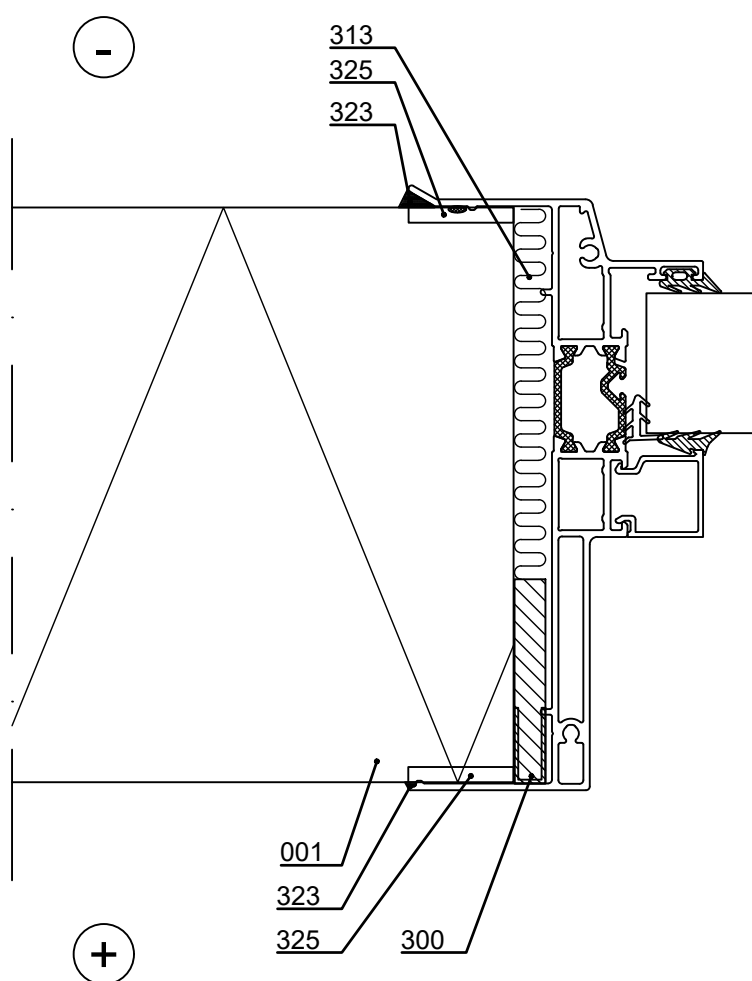
Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy window, horizontal section
Small window

Date 25.05.2023	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 elements.

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

Note! Remember to seal the grooves of the elements joining the window during the installation with Ruukki silicone 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 silicone
- ☐ 325. Ruukki silicone during installation to outer and inner female grooves

☒ Ruukki's delivery

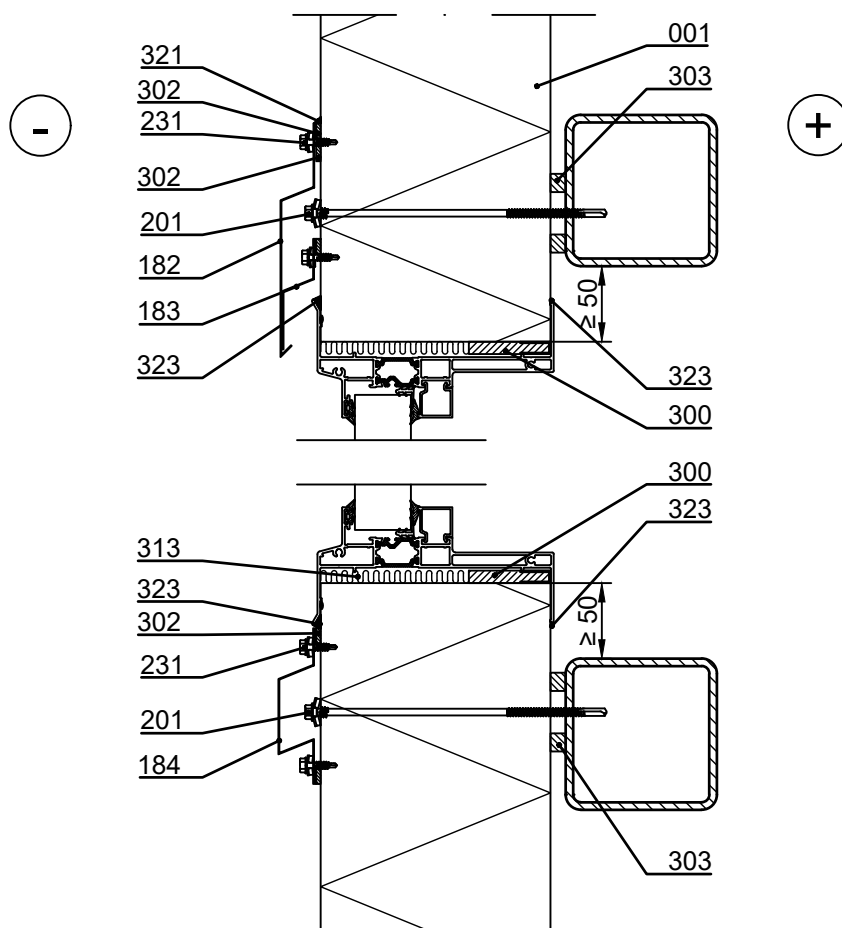
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

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

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

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

Supporting structures according to structural designer.



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

☒ Ruukki's delivery

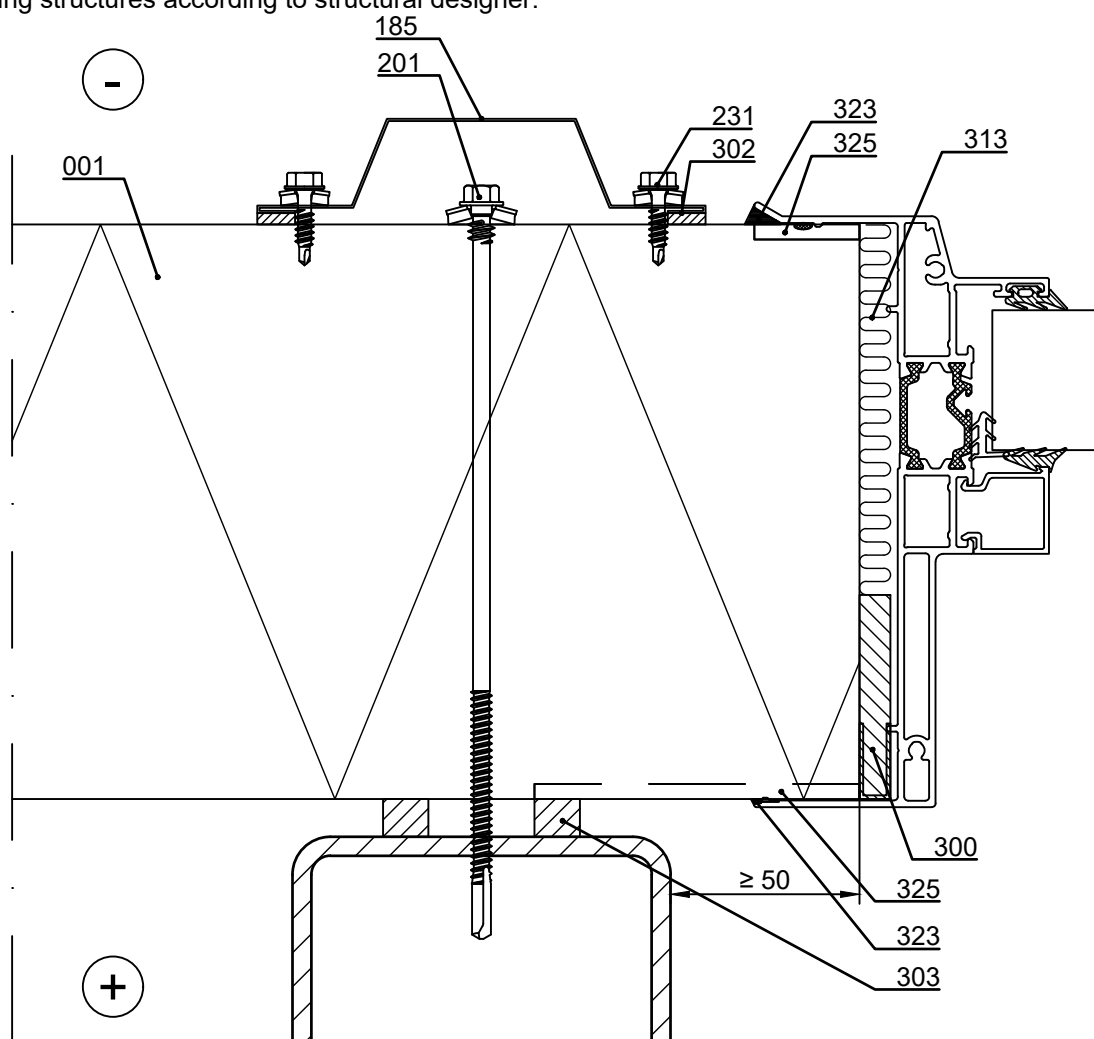
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

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

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

Note! Remember to seal the grooves of the elements joining the window during the installation with Ruukki silicone 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
 - ☐ 302. /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 silicone
 - ☐ 325. Ruukki silicone during installation to outer and inner female grooves
- ☒ Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal installation
Window, vertical section

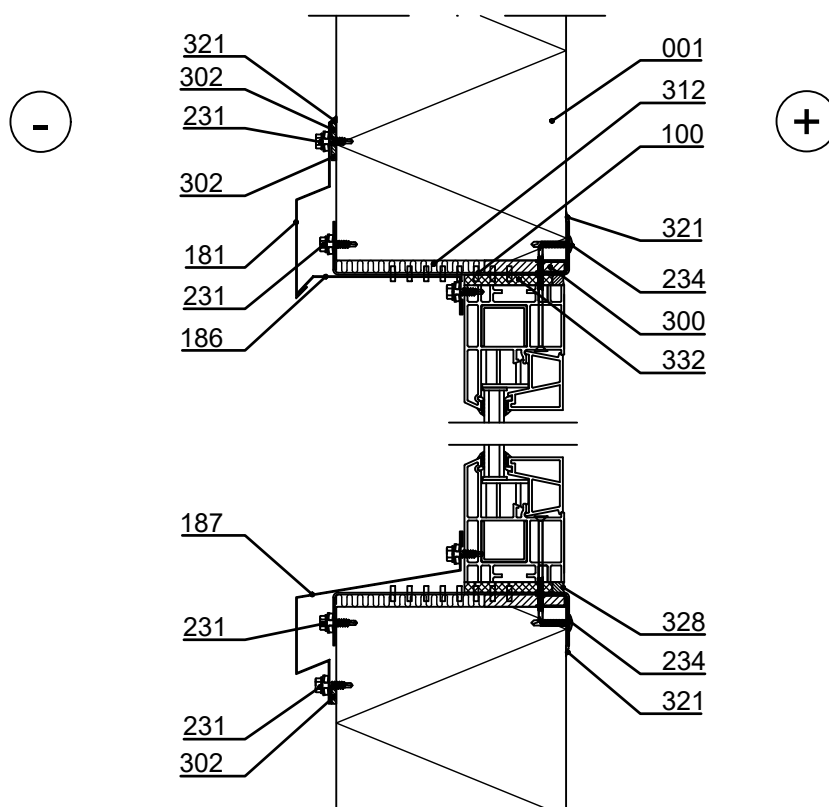
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

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

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 elements joining the window during the installation with Ruukki silicone 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"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 100. /EA1W___/ Window purlin | <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing |
| <input type="checkbox"/> 181. Drip flashing, t = 0.6 mm, according to project | <input type="checkbox"/> (for demanding climate conditions e.g. coastal areas) |
| <input type="checkbox"/> 186. Support- / cover flashing, t = 0.6 mm, acc. to project | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool band |
| <input type="checkbox"/> 187. External window sill, t = 0.6 mm, acc. to project | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> 328. Ruukki silicone |
| <input type="checkbox"/> 234. Flat head flashing fastener | <input type="checkbox"/> 332. PU foam |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band
(plastic tape facing inside) | |

☒ Ruukki's delivery

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Sandwich panel SPA ENERGY, horizontal
installation
Window, horizontal section

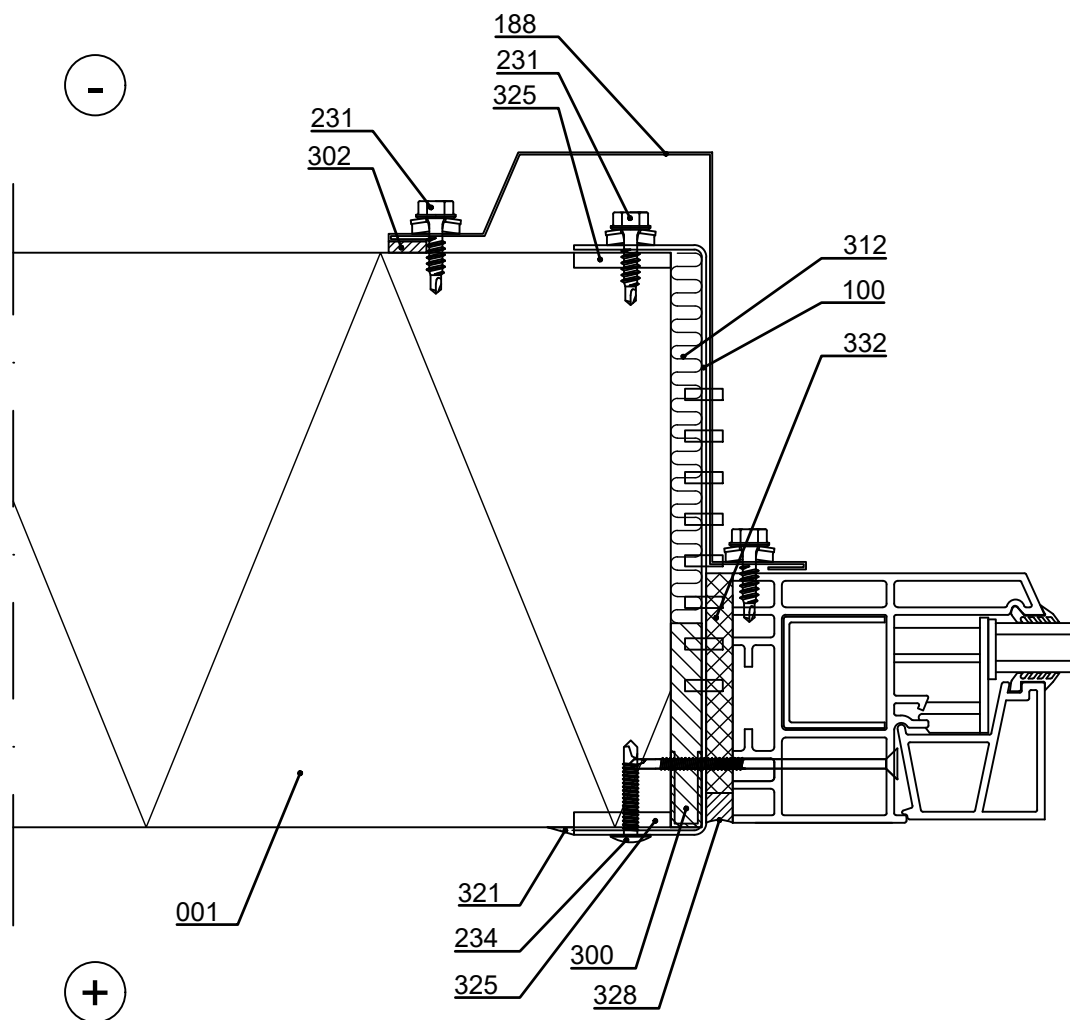
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-6E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

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

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 elements joining the window during the installation with Ruukki silicone 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).



- | | |
|---|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 100. /EA1W___/ Window purlin | <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas) |
| <input type="checkbox"/> 188. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool band |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 234. Flat head flashing fastener | <input type="checkbox"/> 325. Ruukki silicone during installation
to outer and inner female grooves |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band
(plastic tape facing inside) | <input type="checkbox"/> 328. Ruukki silicone |
| <input checked="" type="checkbox"/> Ruukki's delivery | <input type="checkbox"/> 332. PU foam |



Contents of drawing

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

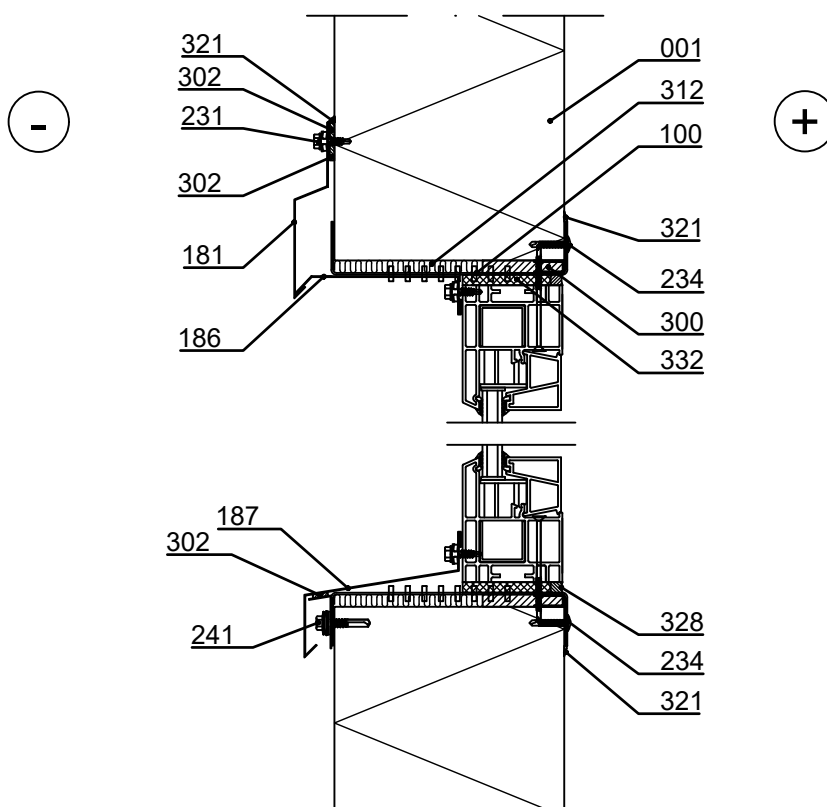
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:5	Building		File nr.

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

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 elements joining the window during the installation with Ruukki silicone 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"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 100. /EA1W___/ Window frame stud | <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing |
| <input type="checkbox"/> 181. Drip flashing, t = 0.6 mm, according to project | <input type="checkbox"/> (for demanding climate conditions e.g. coastal areas)" |
| <input type="checkbox"/> 186. Support- / cover flashing, t = 0.6 mm, acc. to project | <input type="checkbox"/> 312. /EAWS5657850/ Mineral wool roll |
| <input type="checkbox"/> 187. External window sill, t = 0.6 mm, acc. to project | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> 328. Ruukki silicone |
| <input type="checkbox"/> 234. /S1E42013GE/ Flat head flashing fastener | <input type="checkbox"/> 332. PU-foam |
| <input type="checkbox"/> 241. Fastener screw, washer with sealing | |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing | |
| <input type="checkbox"/> (plastic surface towards the inside) | |

☒ Ruukki's delivery

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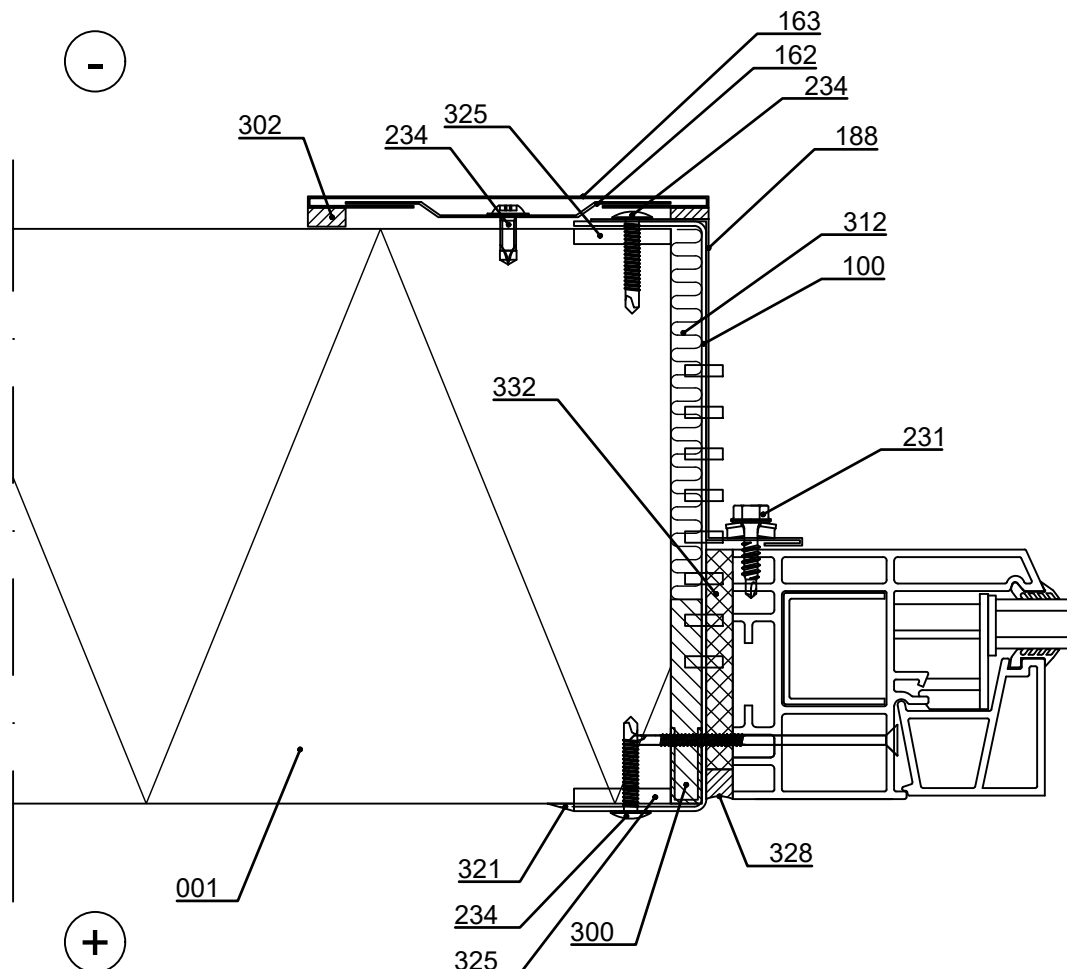
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA08-ENERGY-31E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

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

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 elements joining the window during the installation with Ruukki silicone 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. /EA1WXB/ Window bottom flashing Invisible
- ☐ 163. /EA1WE/ Window flashing Invisible
- ☐ 188. Cover flashing, t = 0.6 mm, according to project
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 234. /S1E42013G___/ Flat head flashing fastener
- ☐ 300. /EA3SWE54318/ Expandable sealing (plastic surface towards the inside)
- ☐ 302. /EA3SS410/ Sealing strip
- ☐ 312. /EAWS___/ Mineral wool roll
- ☐ 321. Ruukki silicone
- ☐ 325. Ruukki silicone during installation to outer- and inner groove
- ☐ 328. Ruukki silicone
- ☐ 332. PU-foam

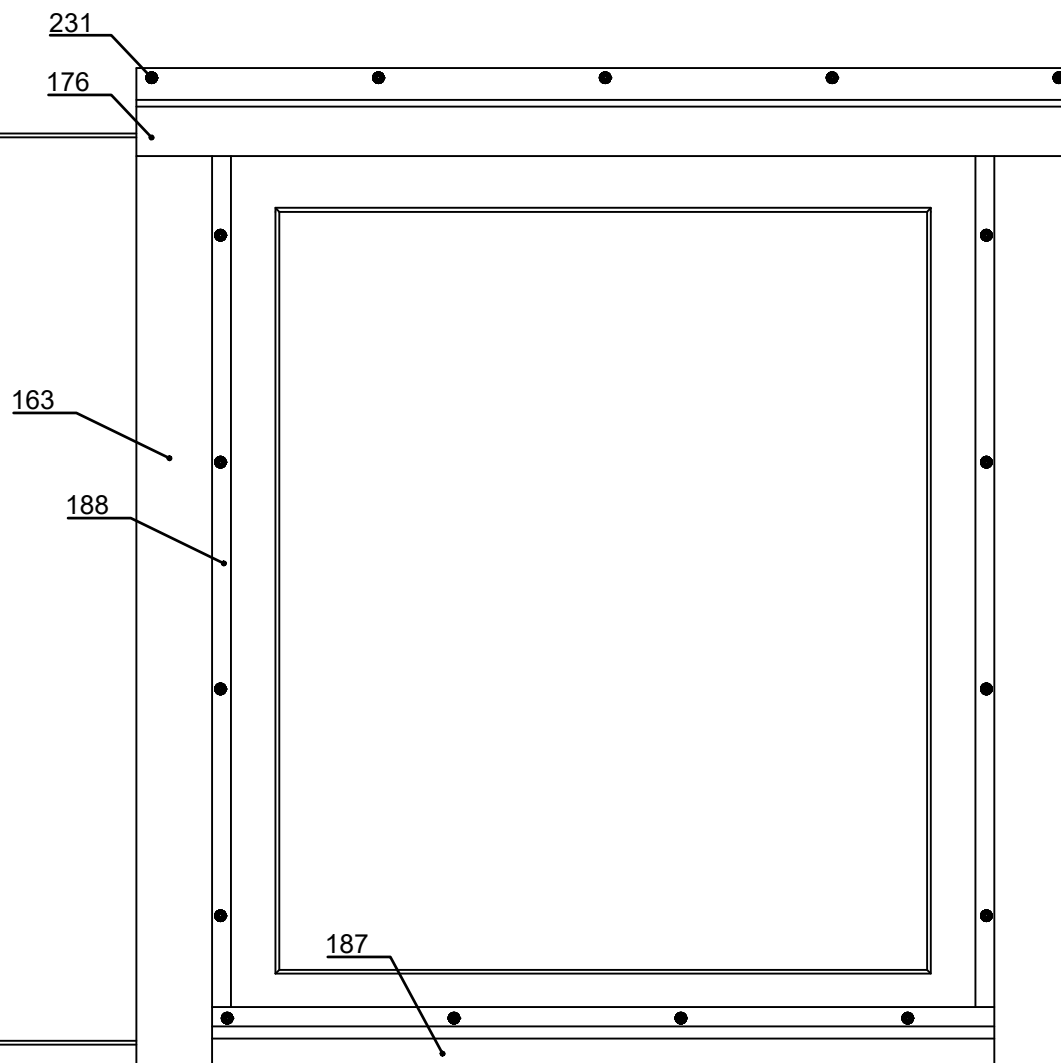
☐ Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
Window
Invisible flashing

Date 25.05.2023	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

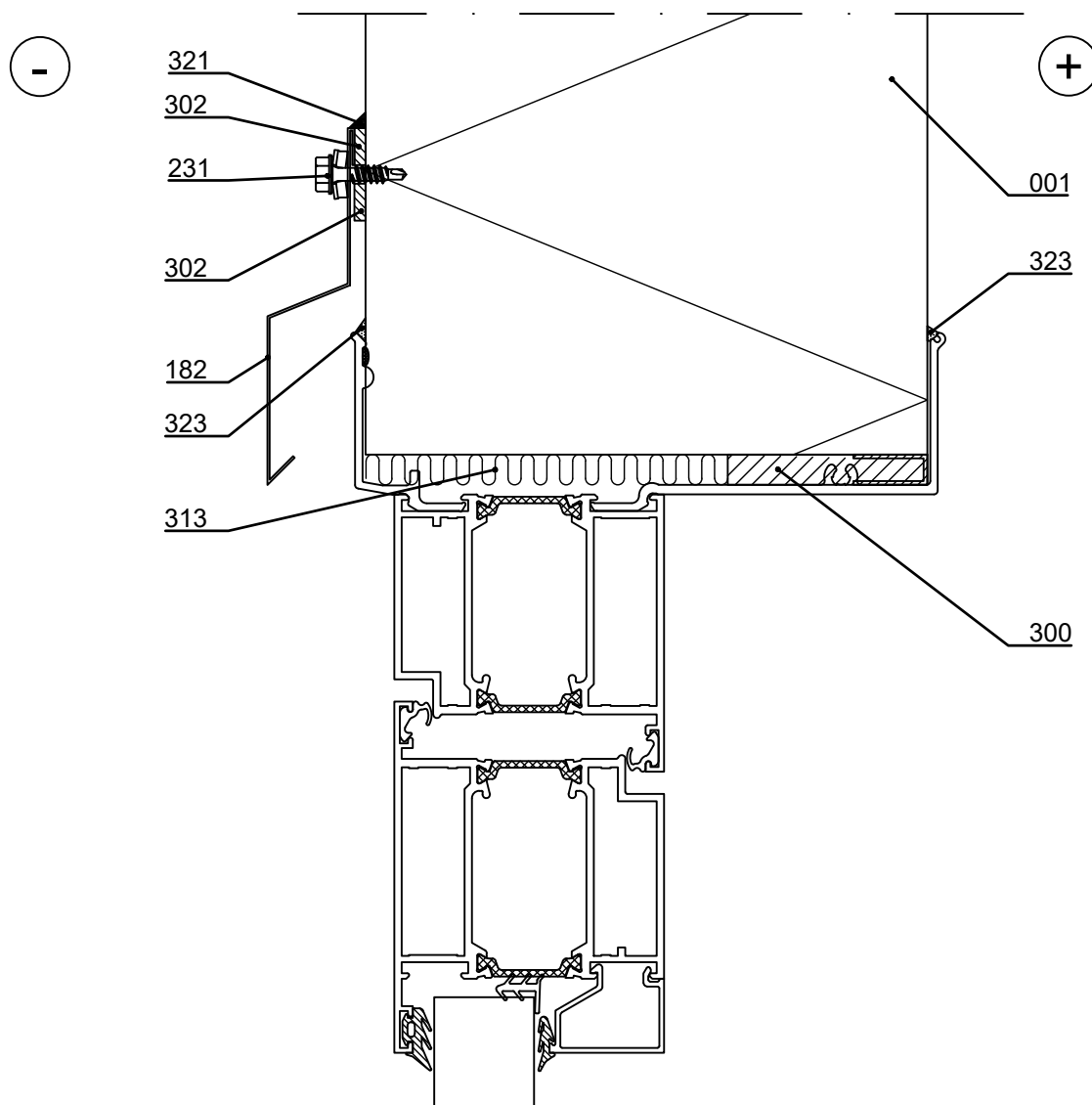
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Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

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

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

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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 silicone
- ☐ 323. Ruukki silicone

☒ Ruukki's delivery



Contents of drawing

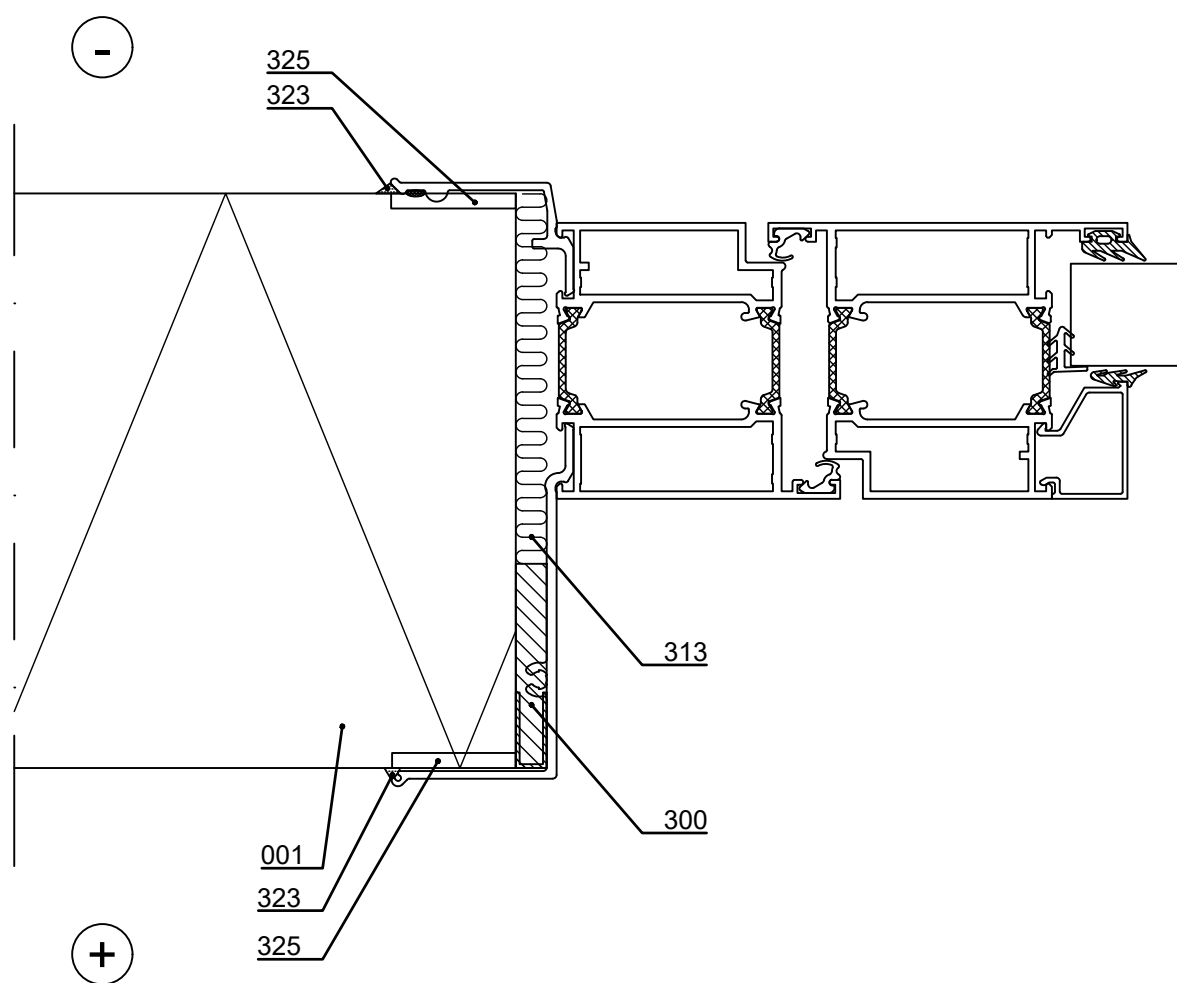
Sandwich panel SPA ENERGY, horizontal inst.
Ruukki energy door, horizontal section
Single door

Date 25.05.2023	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 elements.

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

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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 silicone
- ☐ 325. Ruukki silicone during installation to outer and inner female grooves

☒ Ruukki's delivery

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Contents of drawing

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

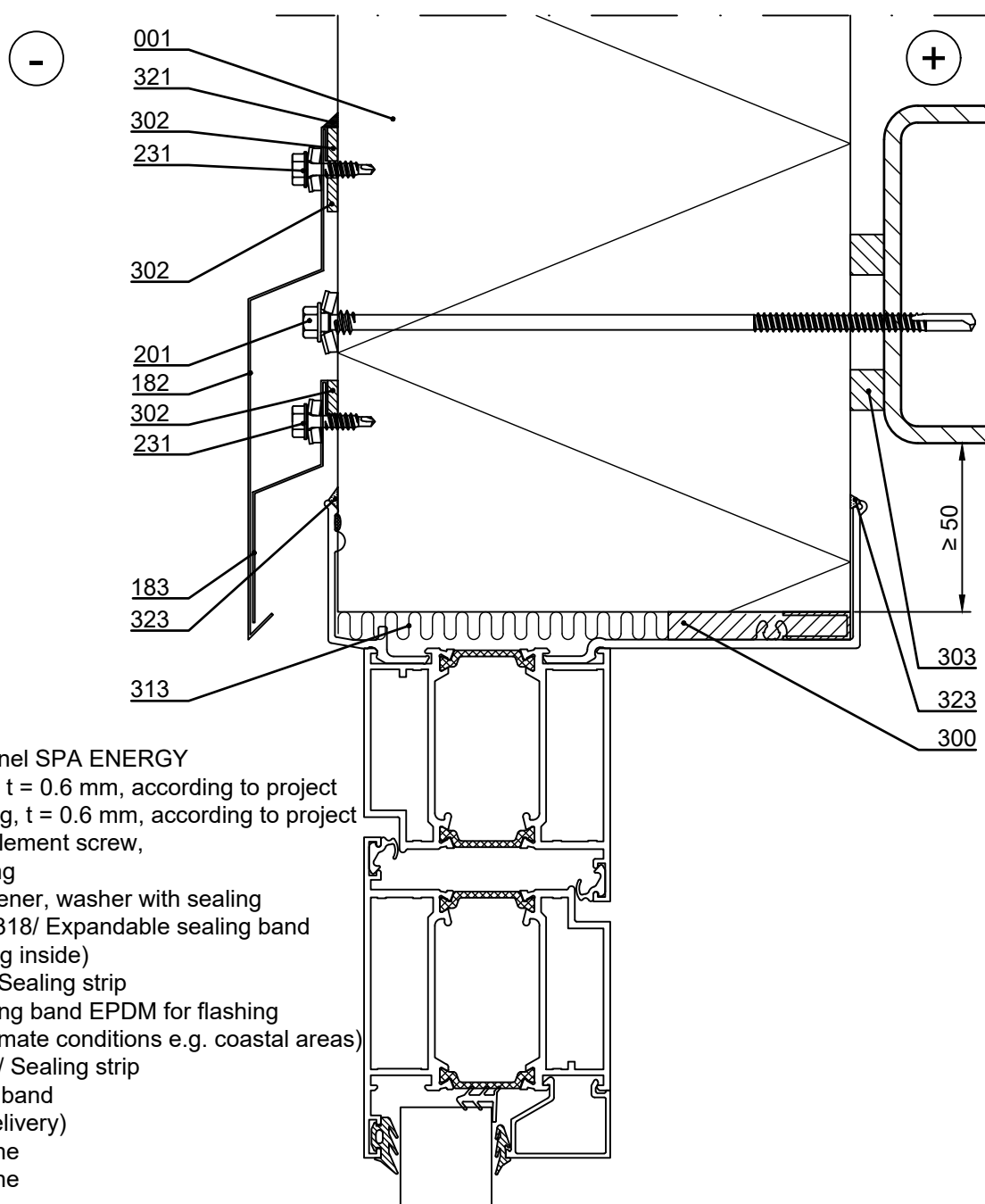
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

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

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

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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 silicone
- ☐ 323. Ruukki silicone

☒ Ruukki's delivery

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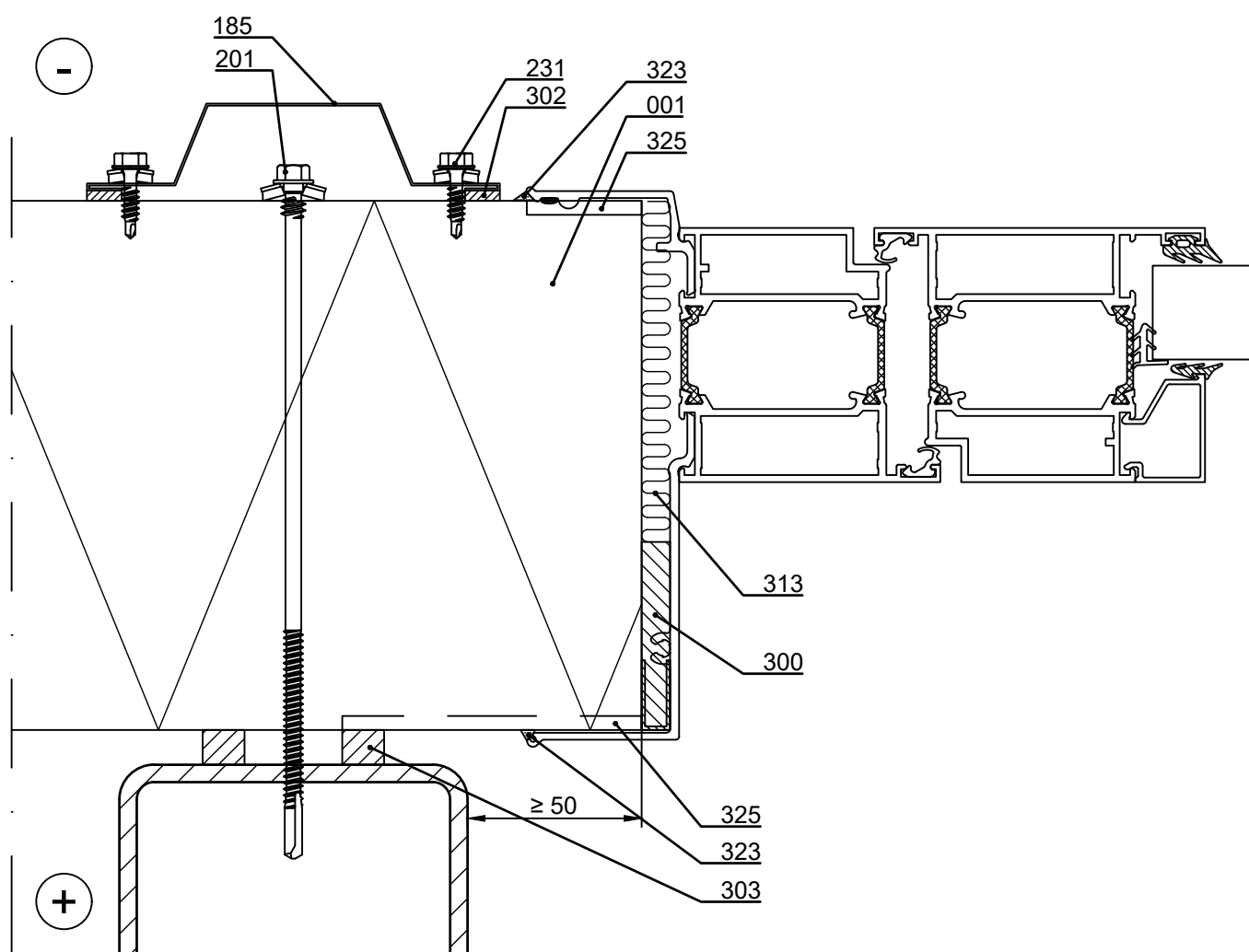
Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	

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

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

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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 silicone
- ☐ 325. Ruukki silicone during installation to outer and inner female grooves

☒ Ruukki's delivery

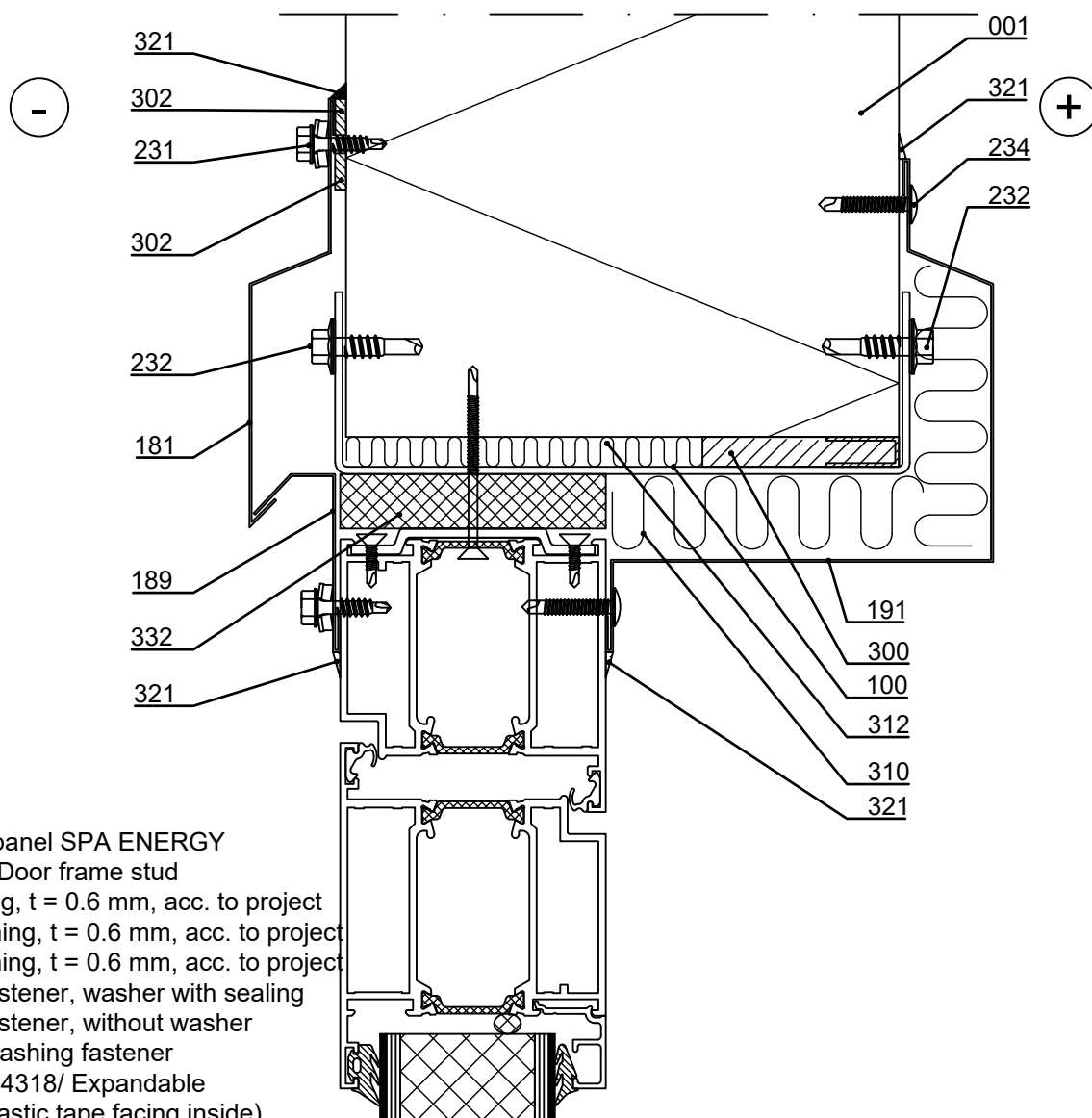
Sandwich panel SPA ENERGY, horizontal
installation
Door, vertical section

Date 25.05.2023	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 elements.

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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 band
- ☐ 321. Ruukki silicone
- ☐ 322. PU-foam

☒ Ruukki's delivery

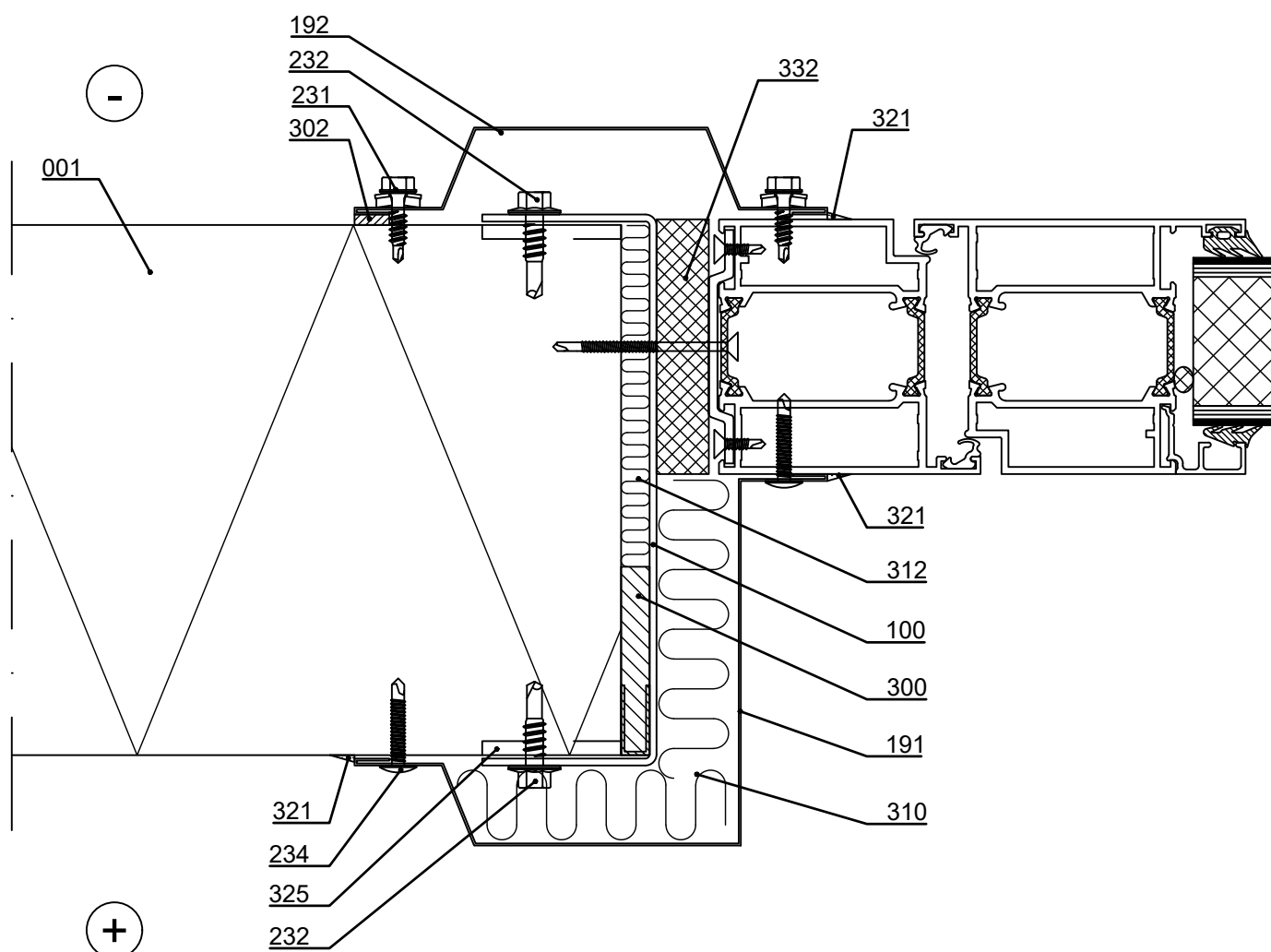
Sandwich panel SPA ENERGY, horizontal
installation
Door, horizontal section

Date 25.05.2023	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 elements.

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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).



- | | |
|--|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 100. EA1D___/ Door frame stud | <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing |
| <input type="checkbox"/> 191. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> (for demanding climate conditions e.g. coastal areas) |
| <input type="checkbox"/> 192. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 310. /EA___/ Mineral- / stonewool |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |
| <input type="checkbox"/> 232. Flashing fastener, without washer | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 234. Flat headed flashing fastener | <input type="checkbox"/> 325. Ruukki silicone during installation |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band | <input type="checkbox"/> to outer and inner female grooves |
| <input type="checkbox"/> (plastic tape facing inside) | <input type="checkbox"/> 332. PU foam |

☒ Ruukki's delivery



Contents of drawing

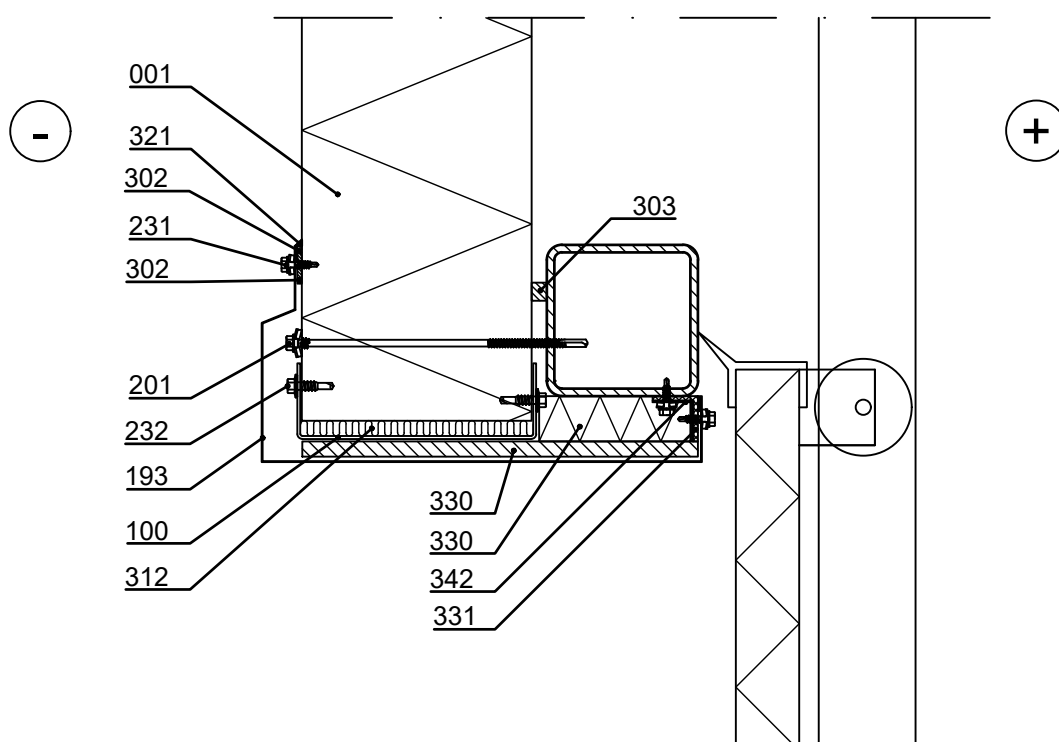
Sandwich panel SPA ENERGY, horizontal
installation
Overhead door, vertical section

Date 25.05.2023	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 elements.

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

Supporting structures according to structural designer.



- | | |
|--|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 303. /EA3SS1210/ Sealing strip |
| <input type="checkbox"/> 100. EA1D___/ Door frame stud | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |
| <input type="checkbox"/> 193. Drip-/cover flashing, t = 0.6 mm, acc. to project | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 201. Self-drilling element screw, washer with sealing | <input type="checkbox"/> 330. PU insulation |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> 331. EPDM sealing |
| <input type="checkbox"/> 232. Flashing fastener, without washer | <input type="checkbox"/> 342. L-profile |
| <input type="checkbox"/> 302. /EA3SS410/ Sealing strip
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas) | |

☒ Ruukki's delivery

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Contents of drawing

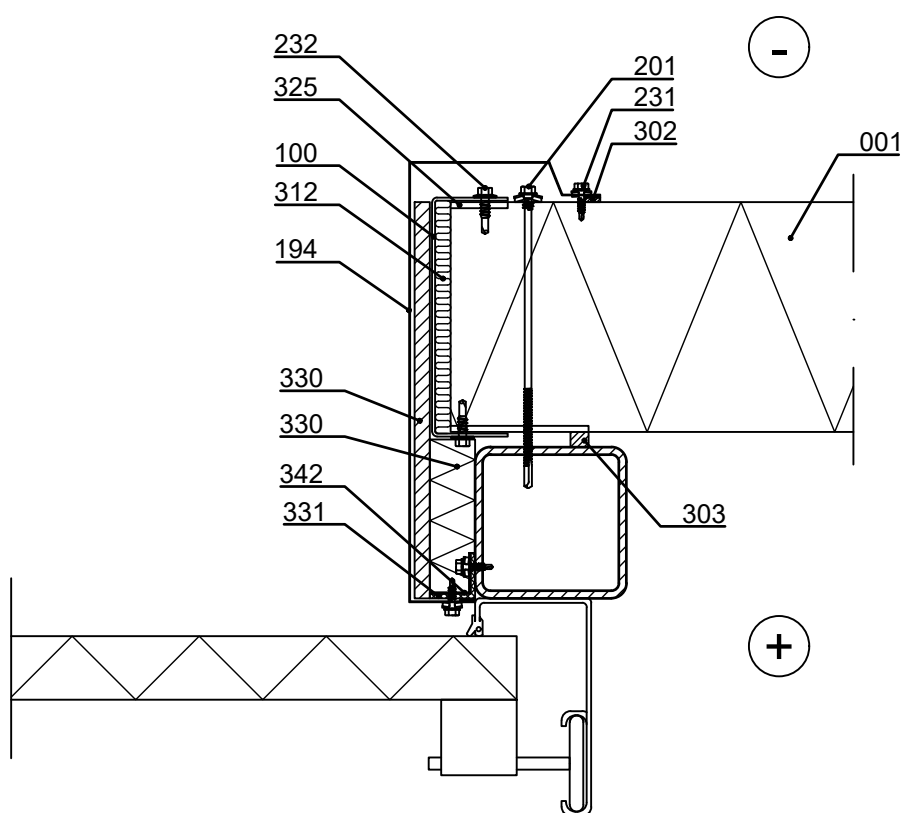
Sandwich panel SPA ENERGY, horizontal
installation
Overhead door, horizontal section

Date 25.05.2023	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 elements.

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

Supporting structures according to structural designer.



- | | |
|--|---|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 303. /EA3SS1210/ Sealing strip |
| <input type="checkbox"/> 100. EA1D___/ Door frame stud | <input type="checkbox"/> 312. /EAWS___/ Mineral wool band |
| <input type="checkbox"/> 194. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 330. PU insulation |
| <input type="checkbox"/> 201. Self-drilling element screw, washer with sealing | <input type="checkbox"/> 331. EPDM sealing |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing | <input type="checkbox"/> 342. L-profile |
| <input type="checkbox"/> 232. Flashing fastener, without washer | <input type="checkbox"/> 325. Ruukki silicone during installation |
| <input type="checkbox"/> 302. /EA3SS410/ Sealing band for flashing
/EA3SS510/ Sealing band EPDM for flashing
(for demanding climate conditions e.g. coastal areas) | <input type="checkbox"/> to outer and inner female grooves |

☒ Ruukki's delivery

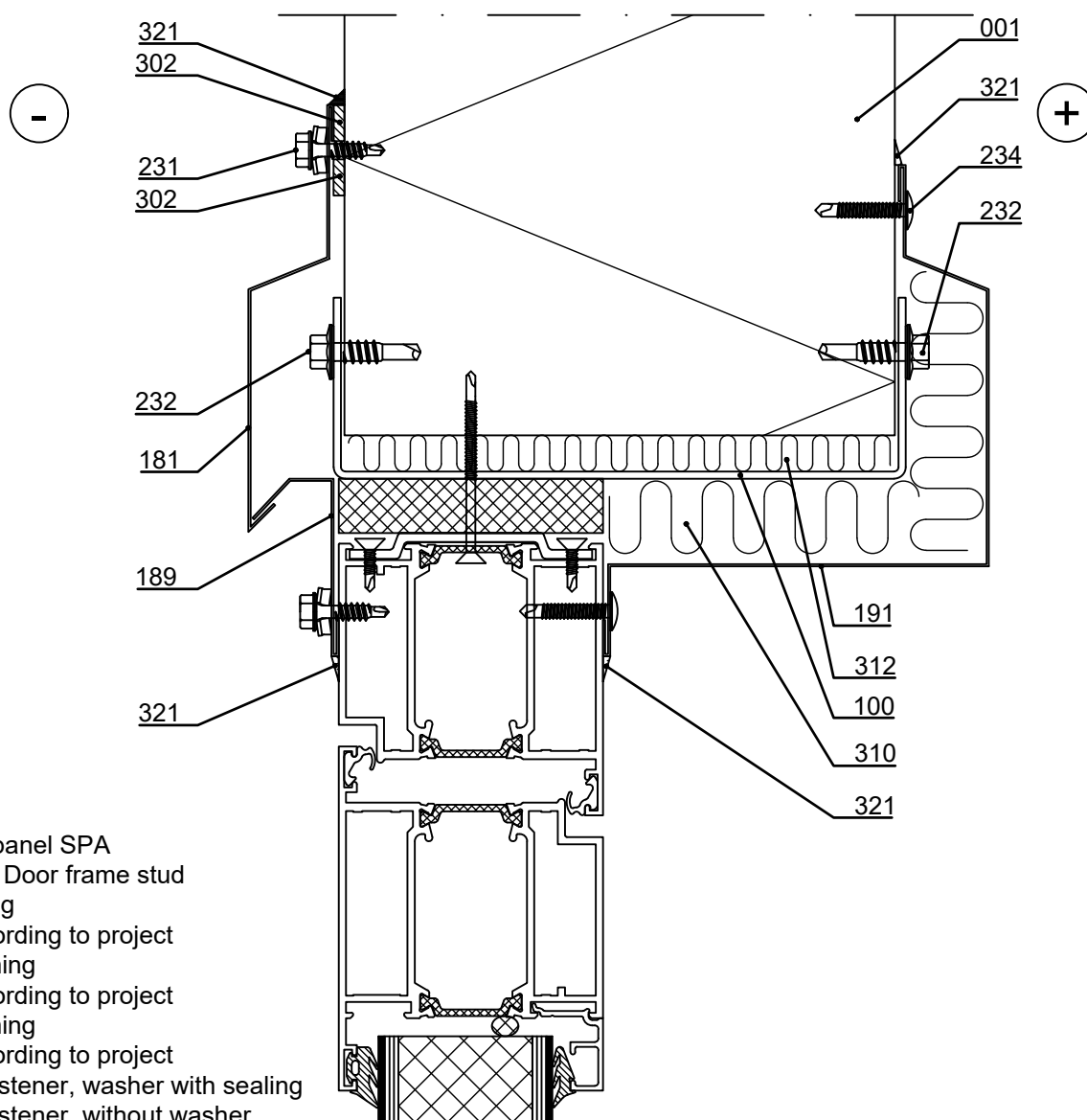
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Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA09-ENERGY-30E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	

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

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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. /S1E42013G___/ 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 roll
- ☐ 321. Ruukki silicone

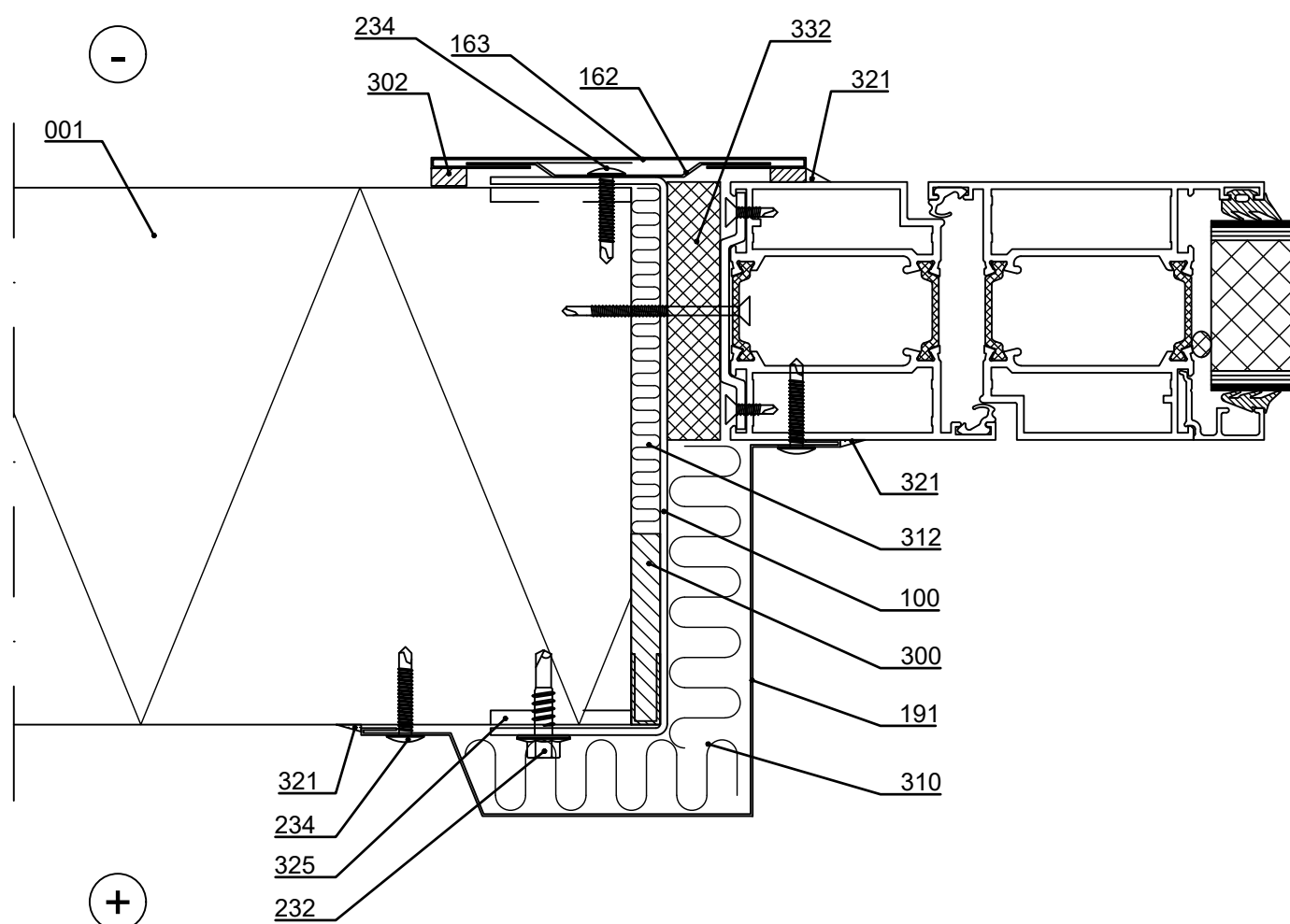
☒ Ruukki's delivery

Date 25.05.2023	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 elements.

Note! Remember to seal the grooves of the elements joining the door during the installation with Ruukki silicone 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).



- | | |
|--|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY | <input type="checkbox"/> 302. /EA3SS410/ Sealing strip |
| <input type="checkbox"/> 100. /EA1D___/ Door frame stud | <input type="checkbox"/> /EA3SS510/ Sealing band EPDM for flashing |
| <input type="checkbox"/> 162. /EA1WXBI/ Window bottom flashing Invisible | (for demanding climate conditions e.g. coastal areas) |
| <input type="checkbox"/> 163. /EA1WEI/ Window flashing Invisible | <input type="checkbox"/> 310. Mineral wool |
| <input type="checkbox"/> 191. Cover flashing, t = 0.6 mm, according to project | <input type="checkbox"/> 312. /EAWS___/ Mineral wool roll |
| <input type="checkbox"/> 232. Flashing fastener, without washer | <input type="checkbox"/> 321. Ruukki silicone |
| <input type="checkbox"/> 234. /S1E42013G___/ Flat head flashing fastener | <input type="checkbox"/> 325. Ruukki silicone |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing | during installation to outer- and inner groove |
| (plastic surface towards the inside) | <input type="checkbox"/> 332. PU-foam |

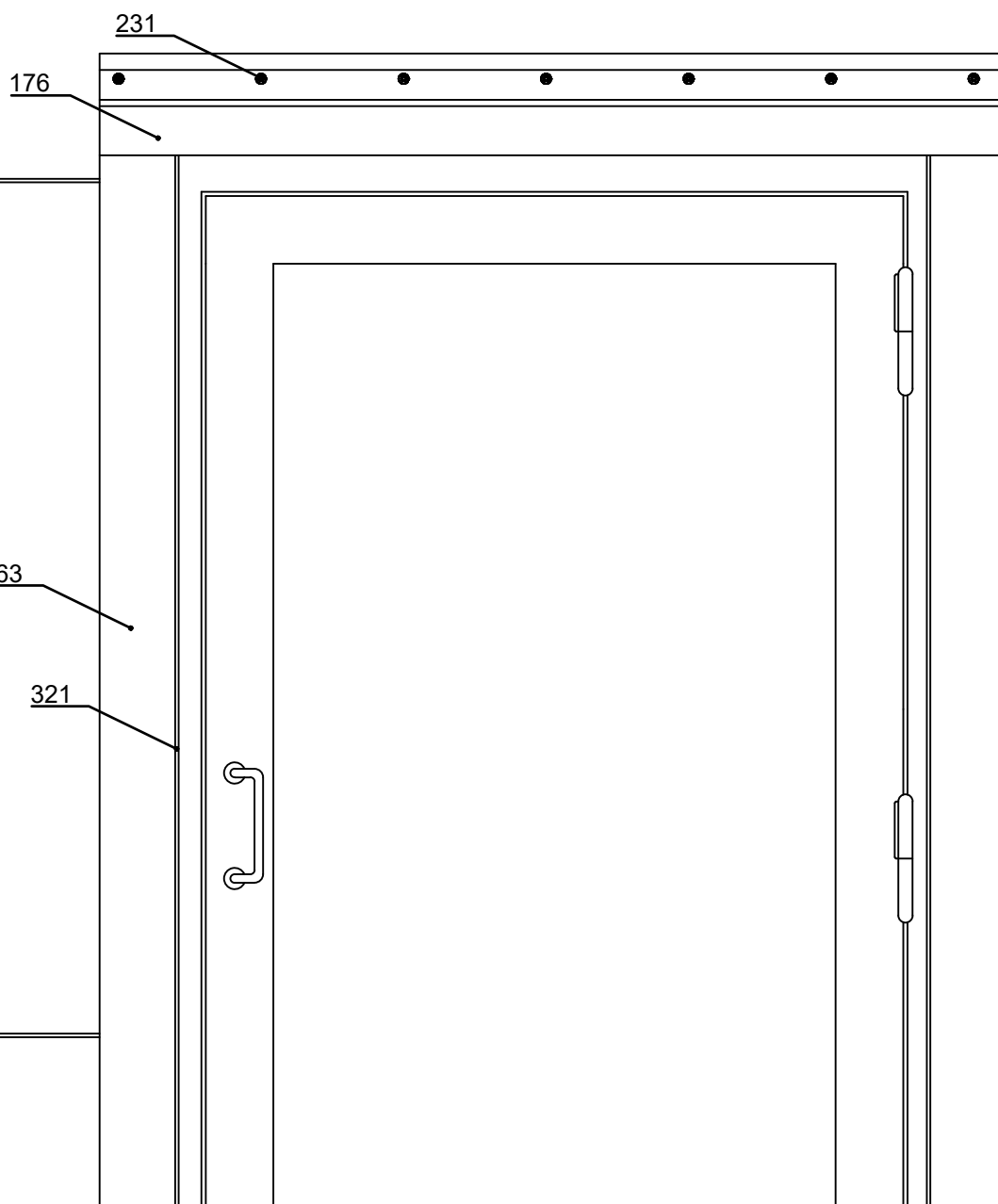
☒ Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.
Door
Invisible flashing

Date 25.05.2023	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

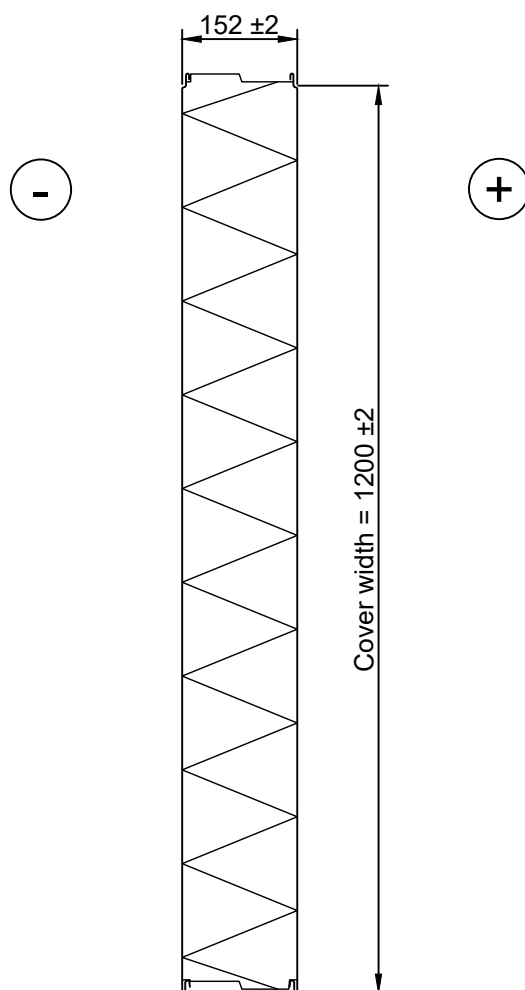
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Contents of drawing

Sandwich panel SPA150 ENERGY

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

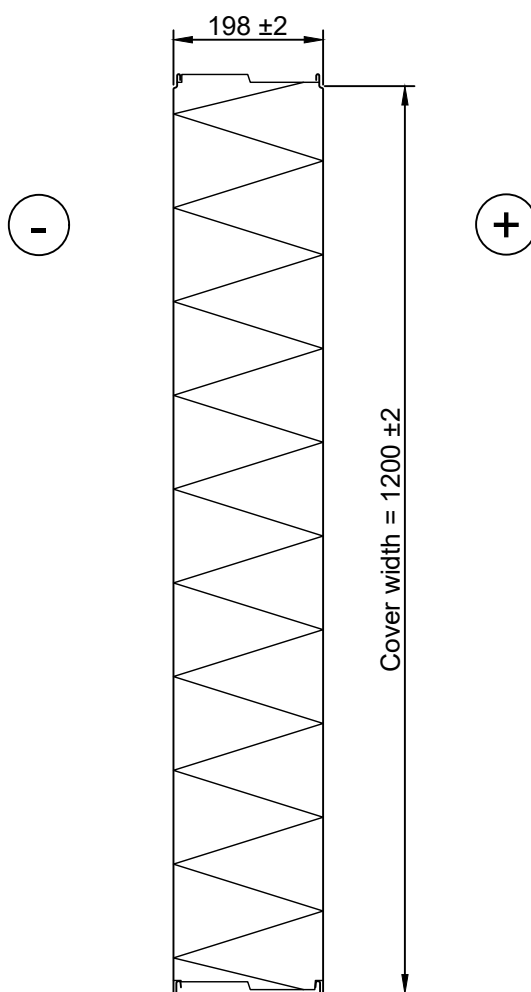




Contents of drawing

Sandwich panel SPA200 ENERGY

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

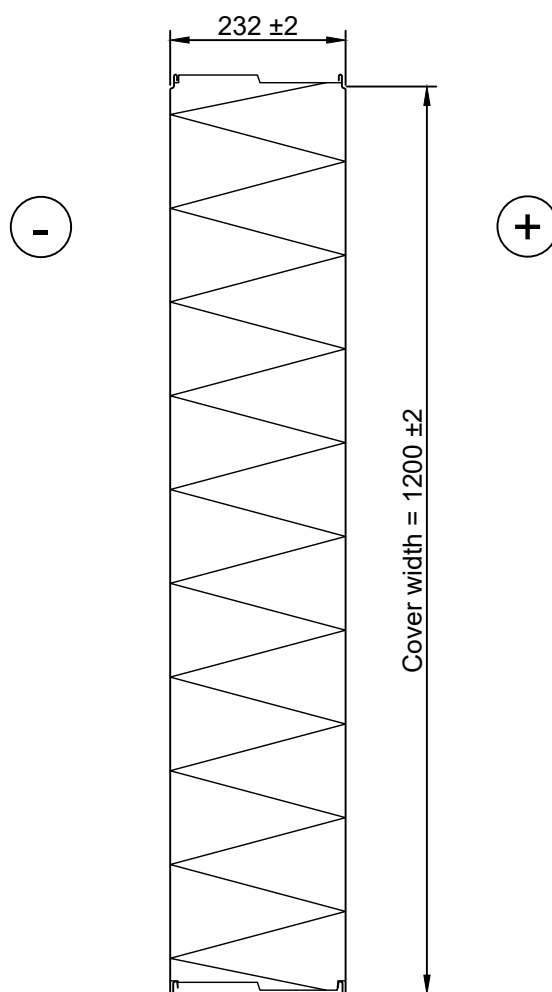




Contents of drawing

Sandwich panel SPA230 ENERGY

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-3E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

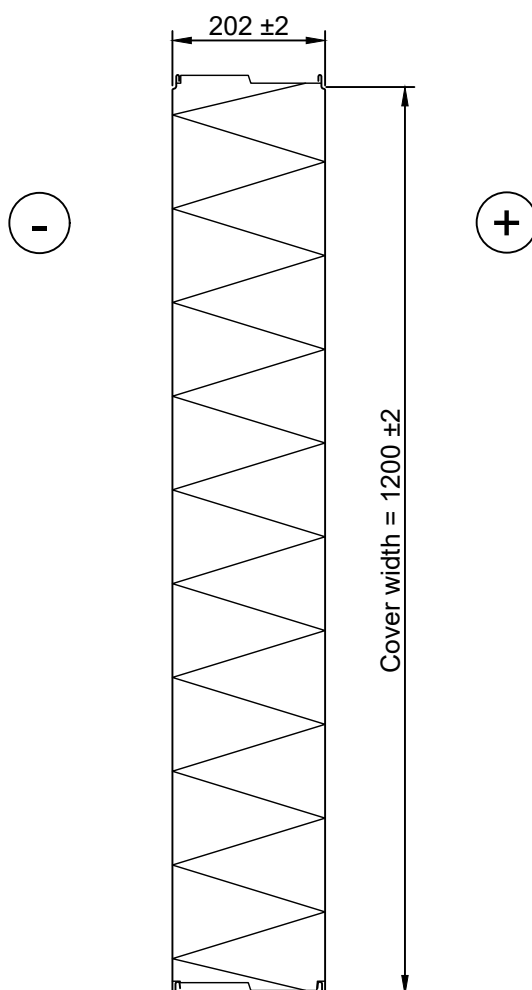




Contents of drawing

Sandwich panel SPA200+ ENERGY

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-4E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.

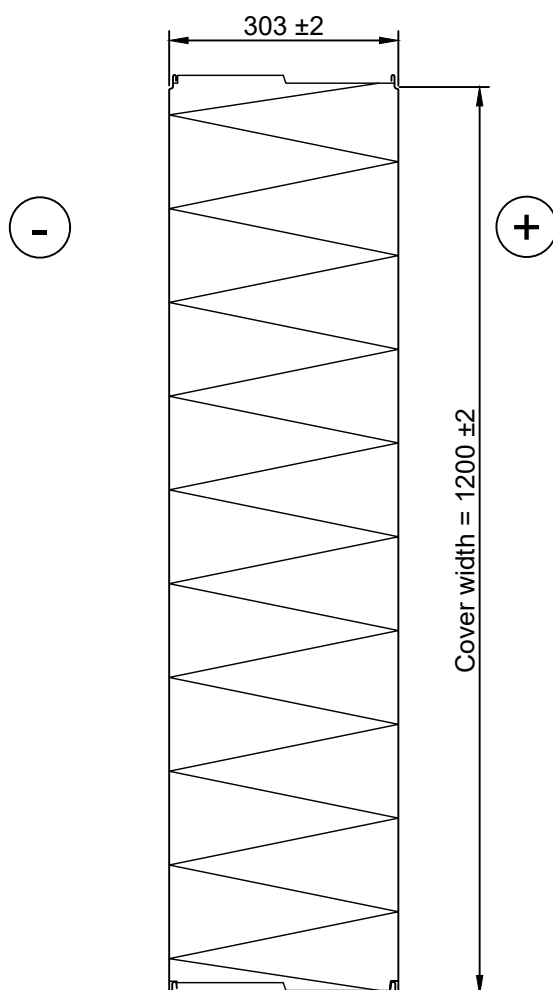




Contents of drawing

Sandwich panel SPA300 ENERGY

Date 25.05.2023	Rev. date	Work nr.	Drawing nr. SPA10-ENERGY-5E-EN
Drawn by Ruukki	Rev.		
Scale 1:10	Building		File nr.



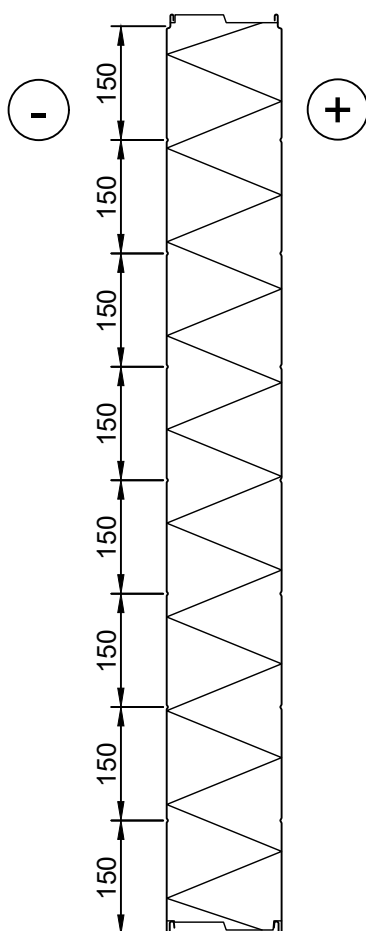


Contents of drawing

Sandwich panel SPA
Rib R150 surface profiling

Date 25.05.2023	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.



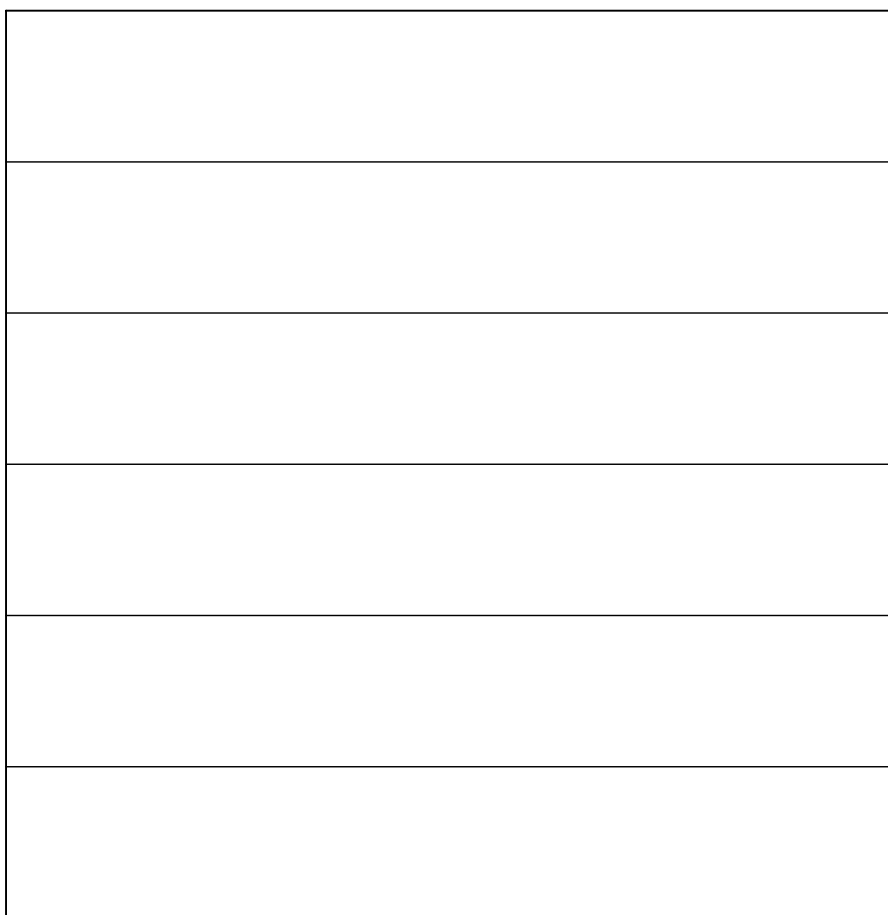
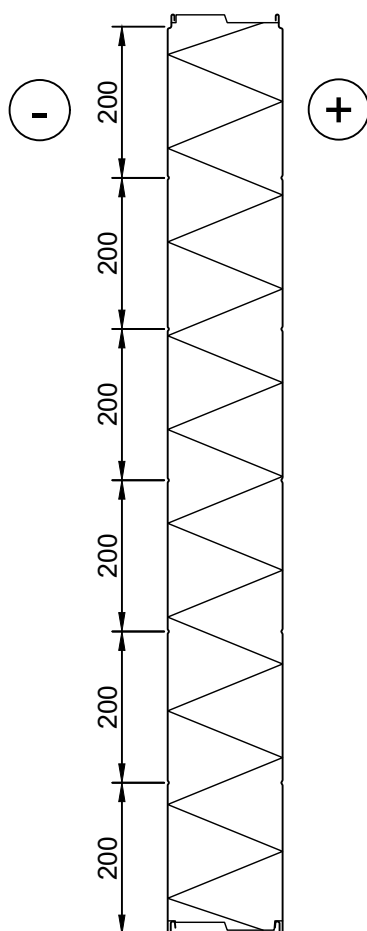


Contents of drawing

Sandwich panel SPA
Rib R200 surface profiling

Date 25.05.2023	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.



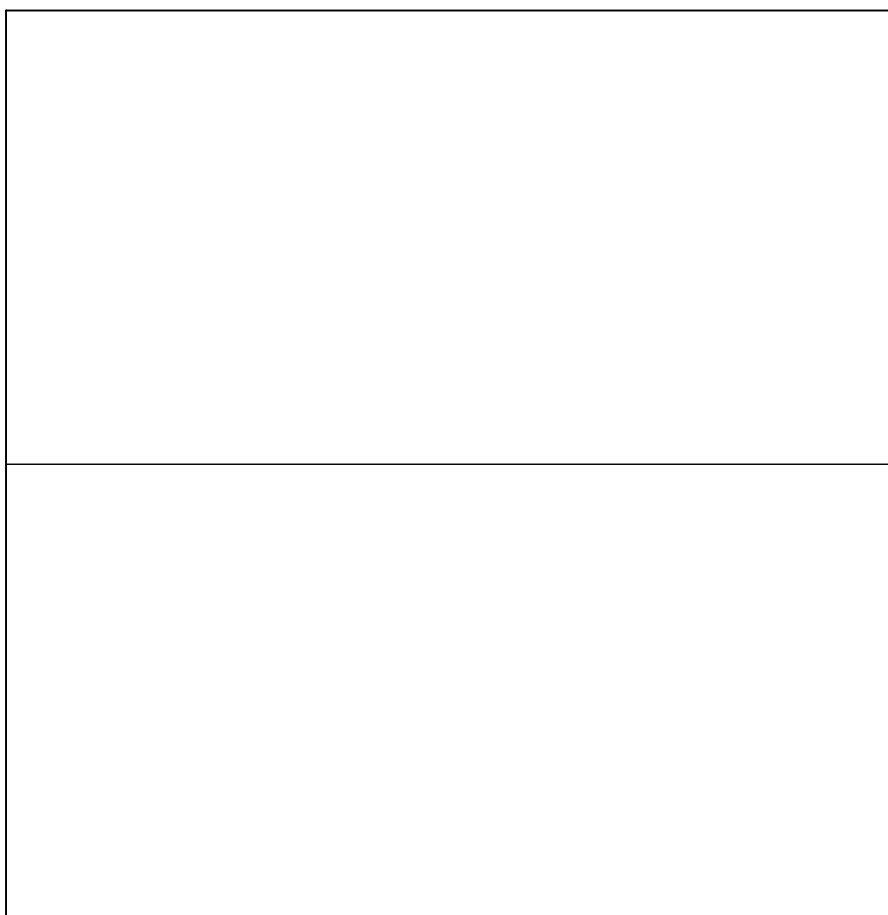
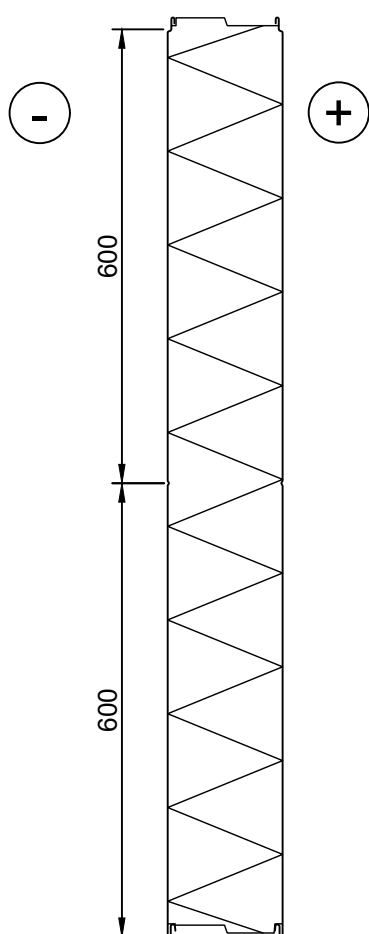


Contents of drawing

Sandwich panel SPA
Rib R600 surface profiling

Date 25.05.2023	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.



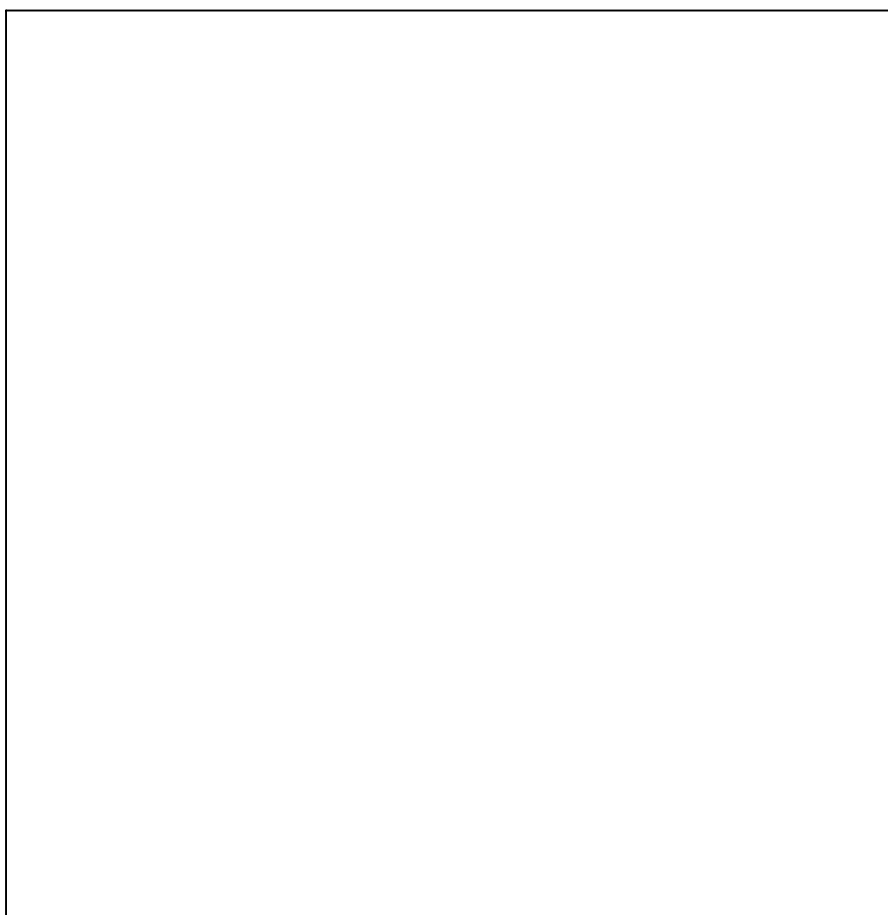
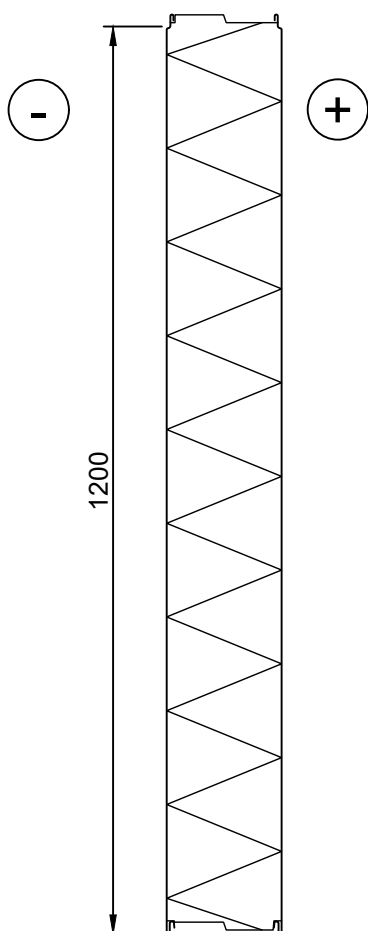


Contents of drawing

Sandwich panel SPA
Smooth F surface (no profiling)

Date 25.05.2023	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.



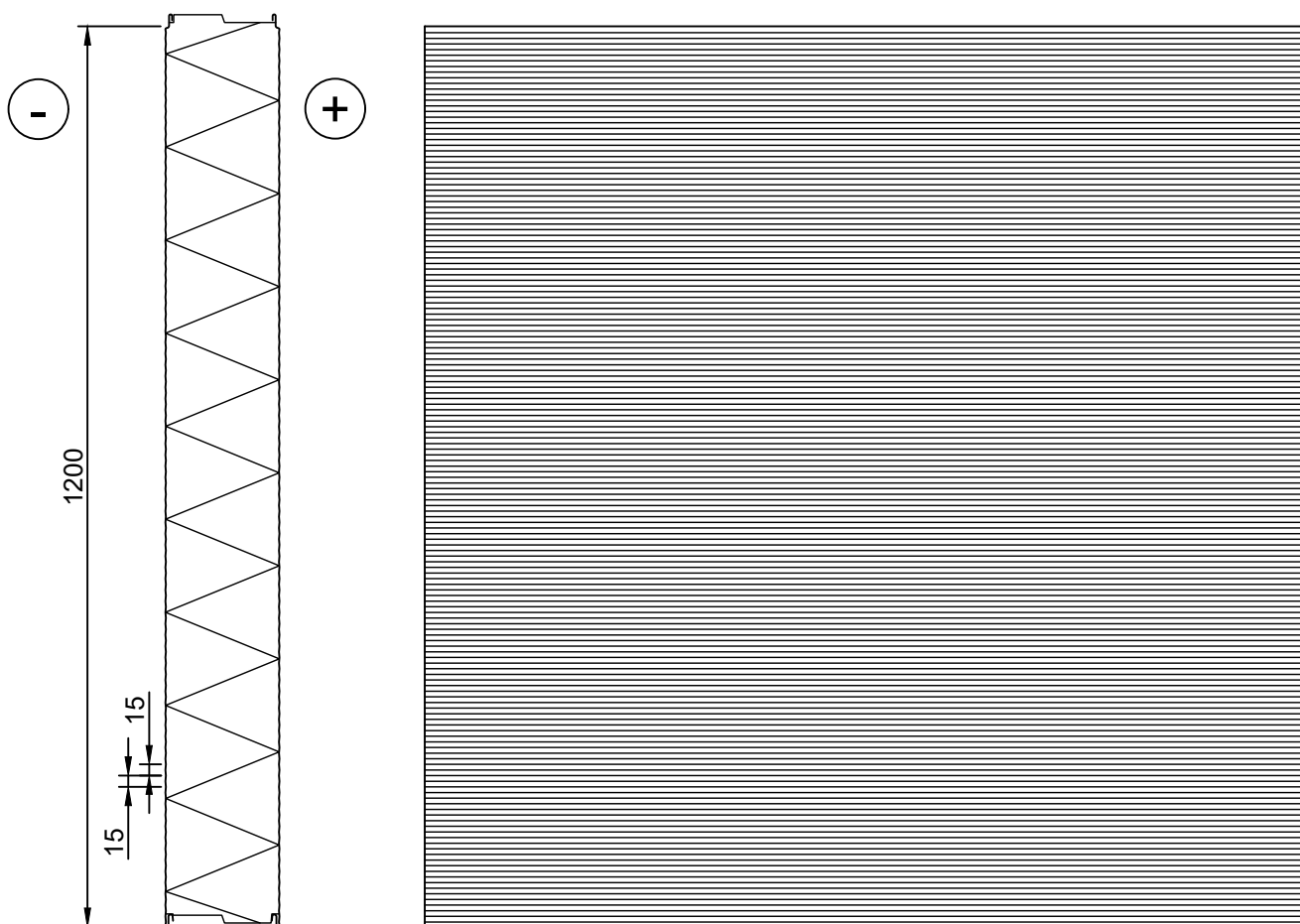


Contents of drawing

Sandwich panel SPA
M15 (Micro) surface profiling

Date 25.05.2023	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.





Contents of drawing

Sandwich panel SPA
L50 (Linear) surface profiling

Date 25.05.2023	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.

