






| 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   |          |               | Contents of drawing   |          |      | Scale |
|  <p>Ruukki Construction Oy<br/>Panuntie 11<br/>00620 HELSINKI<br/>FINLAND</p> <p>tel. +358 (0) 20 59 150<br/>www.ruukki.com</p> |          |               | <p>Sandwich panel SPA ENERGY<br/>PRINCIPLE DETAIL DRAWINGS<br/>External walls</p> |          |      |       |
| Date   | Designer | Work nr.      | Work nr.  | Drw. nr. | Rev. |       |
| 01.10.2025   |          |               |   |          |      |       |
| Drawn by   | Checked  |               |   |          |      |       |
| Ruukki   |          |               |   |          |      |       |



## Contents of drawing

Sandwich panel SPA ENERGY  
Accessory numbers in details

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

SANDWICH PANELS

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

FLASHINGS

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

FASTENERS

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

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

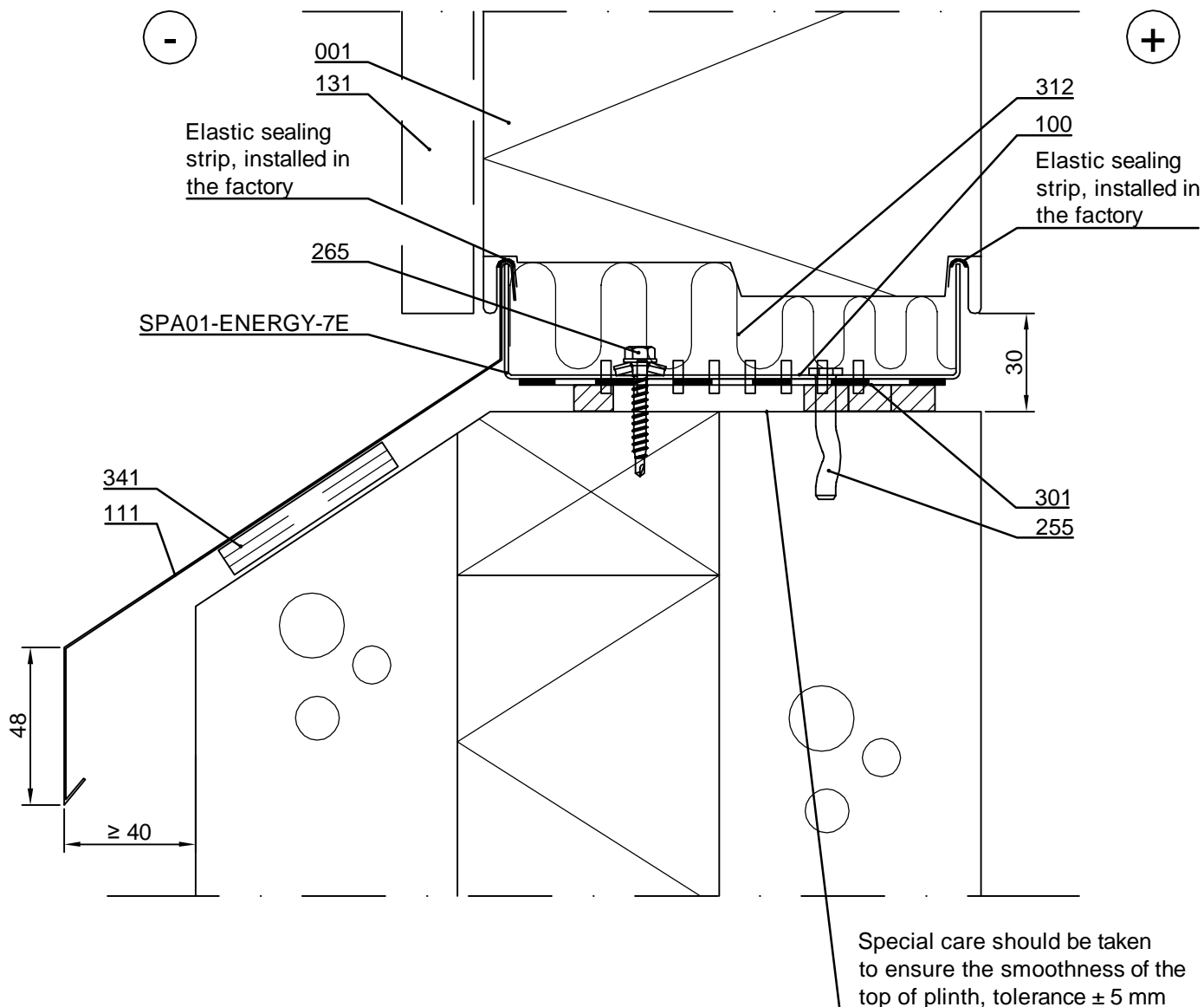
- 265. Fastener screw to wood, washer with sealing

- 271. Rivet

SEALANTS AND INSULATIONS

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

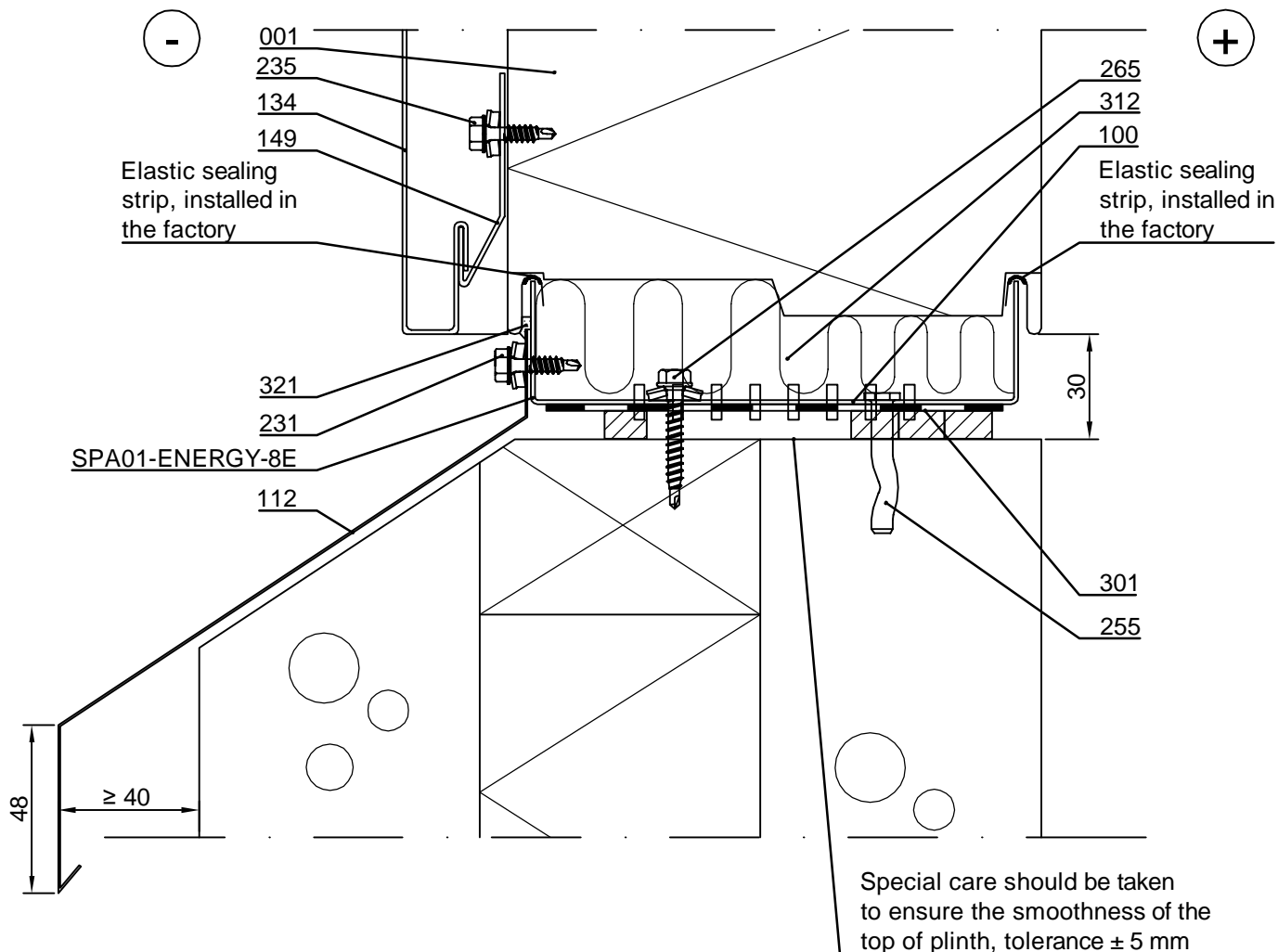
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|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA01-ENERGY-1E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
|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



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U\_\_\_/ U-Plinth purlin
- ☐ 111. /EA1P3-\_\_\_/ Plinth flashing (installed simultaneously with panels)
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 341. Plywood, if necessary

☒ Ruukki's delivery

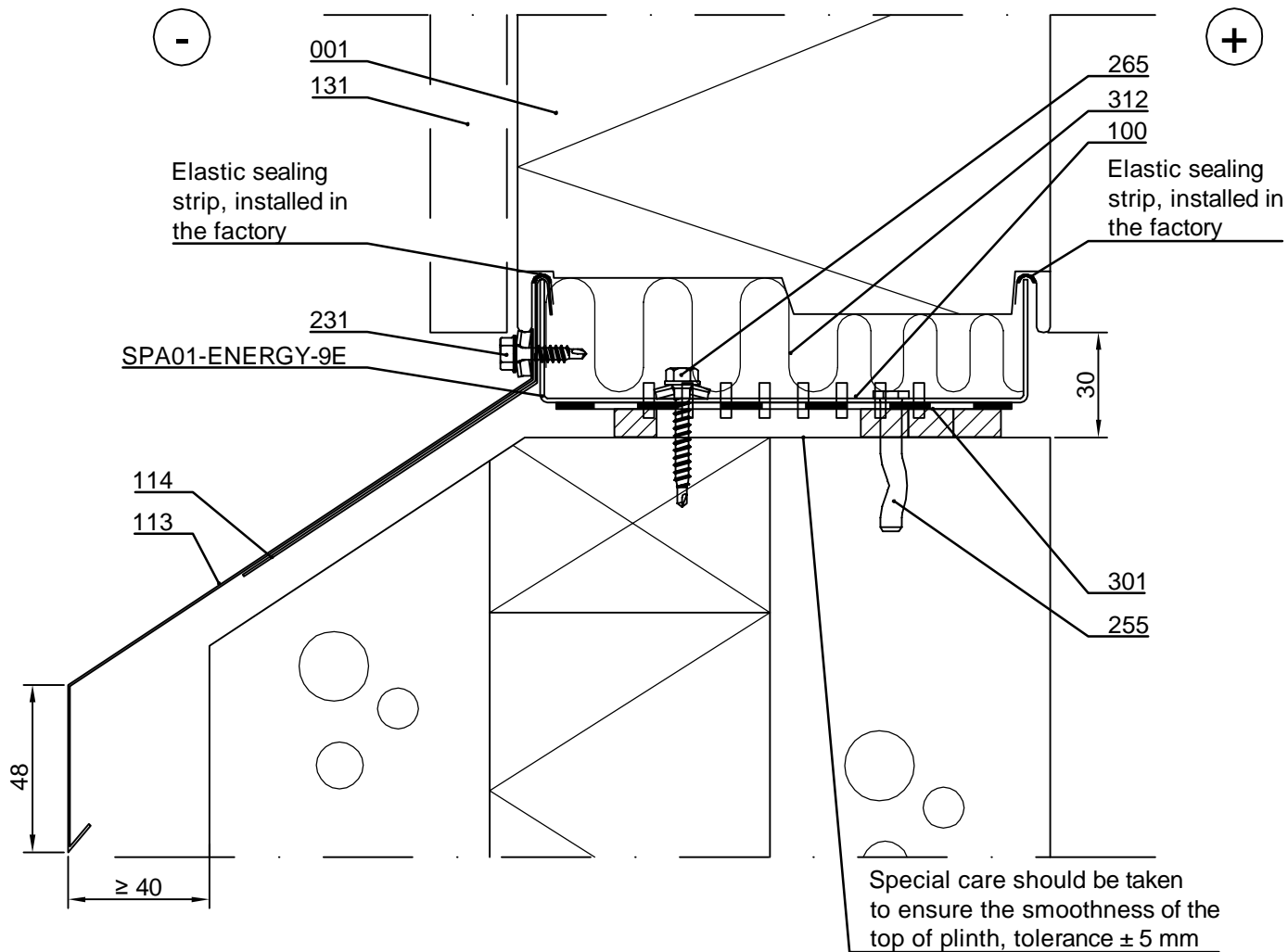
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|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA01-ENERGY-2E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
|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



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U\_\_\_/ U-Plinth purlin
- ☐ 112. /EA1P1-\_\_\_/ Plinth flashing (can be installed after panel installation)
- ☐ 134. /EA1JV10-11/ Vertical joint panel
- ☐ 149. /EA1SF1/ Joint panel starting fillet
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 235. Joint panel fastener, stainless steel, washer with sealing
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 321. Ruukki sealant mastic

☒ Ruukki's delivery

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



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U\_\_\_/ U-Plinth purlin
- ☐ 113. /EA1P4-\_\_\_/ Plinth flashing (can be installed after panel installation)
- ☐ 114. /EA1PS1-\_\_\_/ Support flashing (installed simultaneously with panels)
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS\_\_\_/ Mineral wool

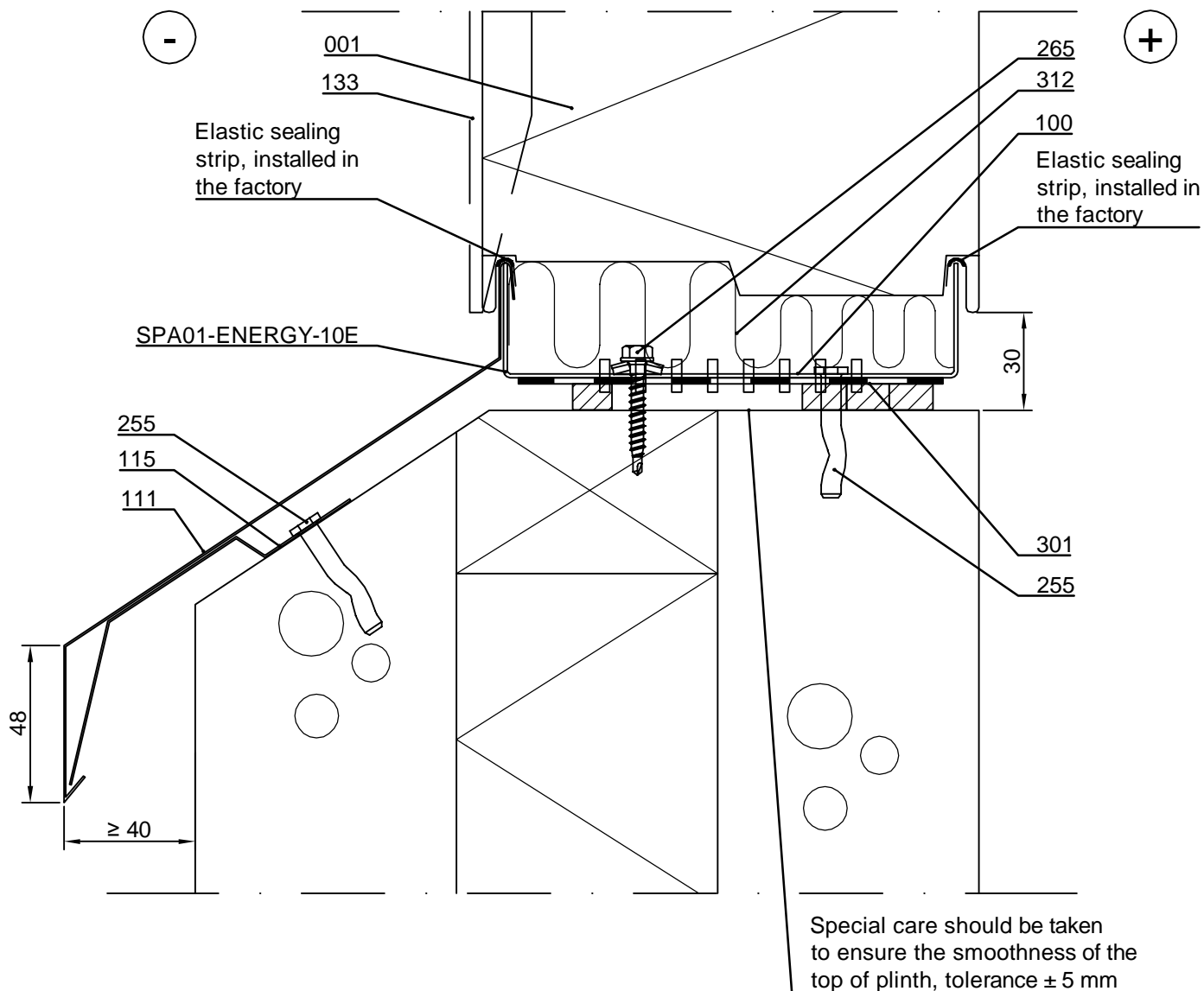
☒ Ruukki's delivery



Contents of drawing

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

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



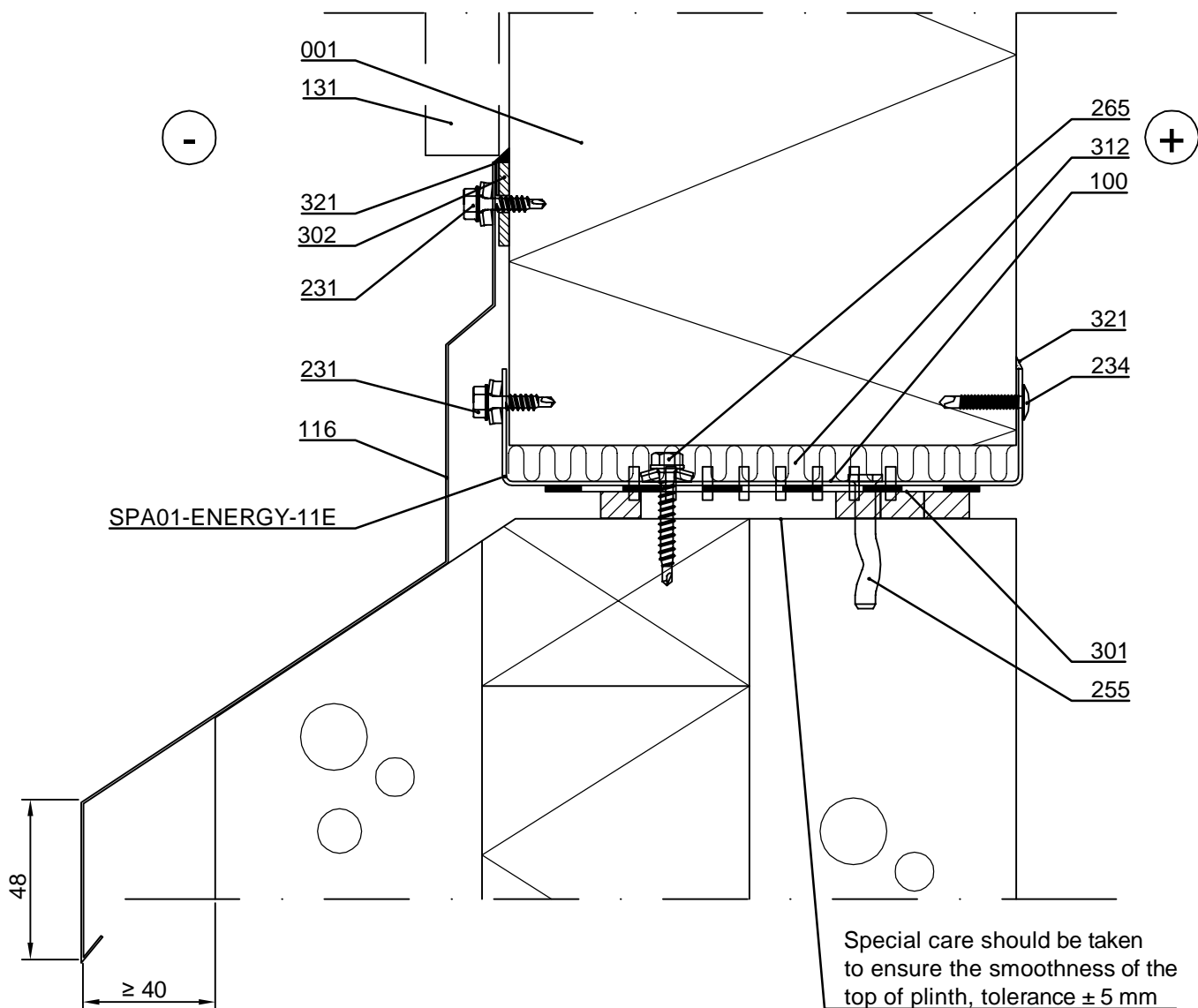
- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U\_\_\_/ U-Plinth purlin
- ☐ 111. /EA1P3-\_\_\_/ Plinth flashing (installed simultaneously with panel)
- ☐ 115. Support flashing, L200 k1000, according to project (installed simultaneously with panels)
- ☐ 133. /EA1JV9/ Vertical joint flashing
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS\_\_\_/ Mineral wool

☒ Ruukki's delivery

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

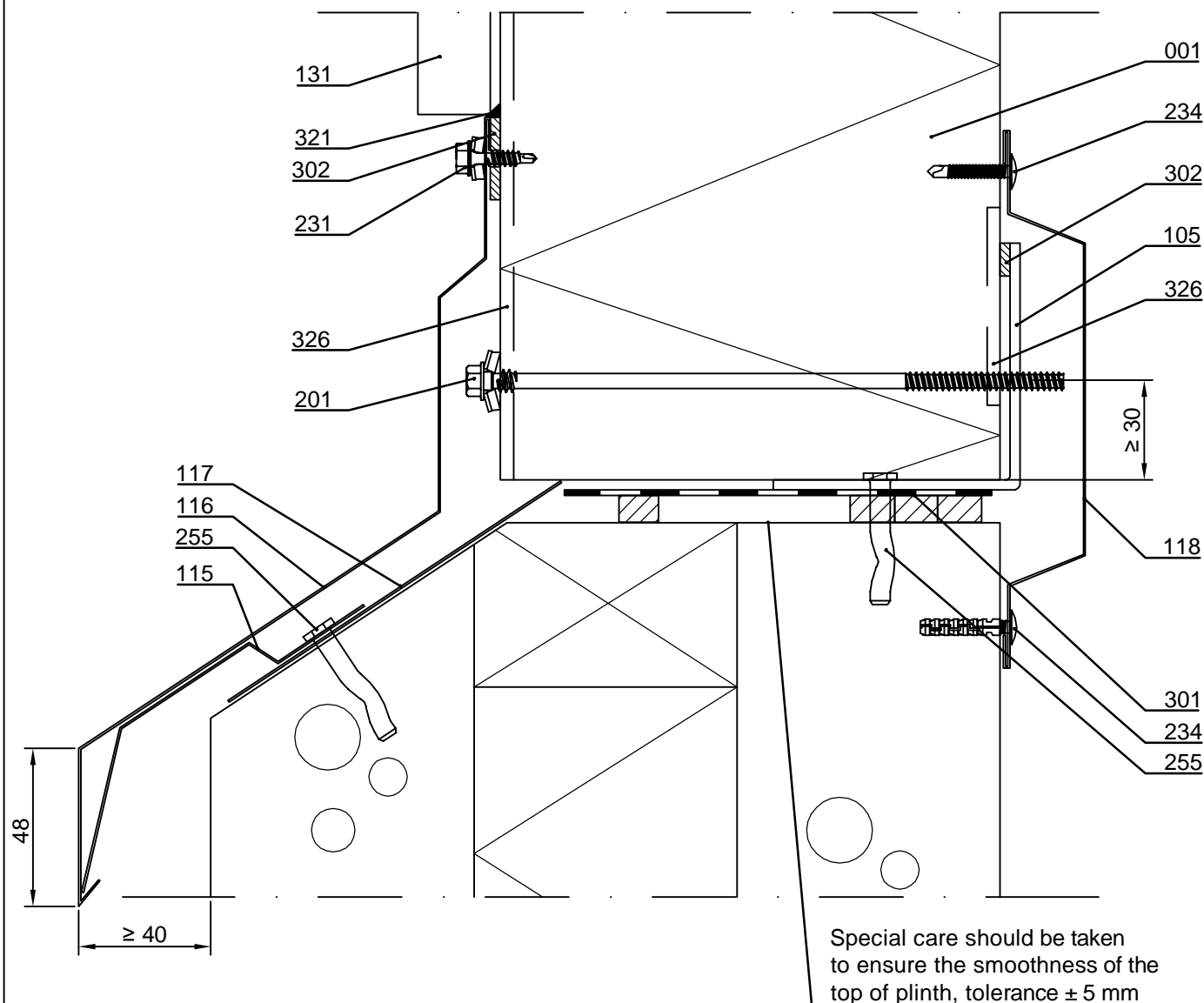


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1W\_\_\_/ Purlin
- ☐ 116. /EA1P5-\_\_\_/Plinth flashing (can be installed after panel installation)
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 234. Flat head flashing fastener

- ☐ 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
- ☐ 321. Ruukki sealant mastic

☒ Ruukki's delivery

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



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 105. /EA1L7530ZN/ Support L-purlin, (t=3mm)
- ☐ 115. Support flashing, L200 k1000, according to project (installed simultaneously with panels)
- ☐ 116. /EA1P5-\_\_\_/Plinth flashing (can be installed after panel installation)
- ☐ 117. Cover flashing, according to project (installed simultaneously with panels)
- ☐ 118. Cover flashing, according to project
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 234. Flat head flashing fastener
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 302. /EA3SS410/ Sealing strip
- ☐ 321. Ruukki sealant mastic
- ☐ 325. Ruukki sealant mastic during installation to outer female groove full length of panel and inner female groove 60 mm from panel end

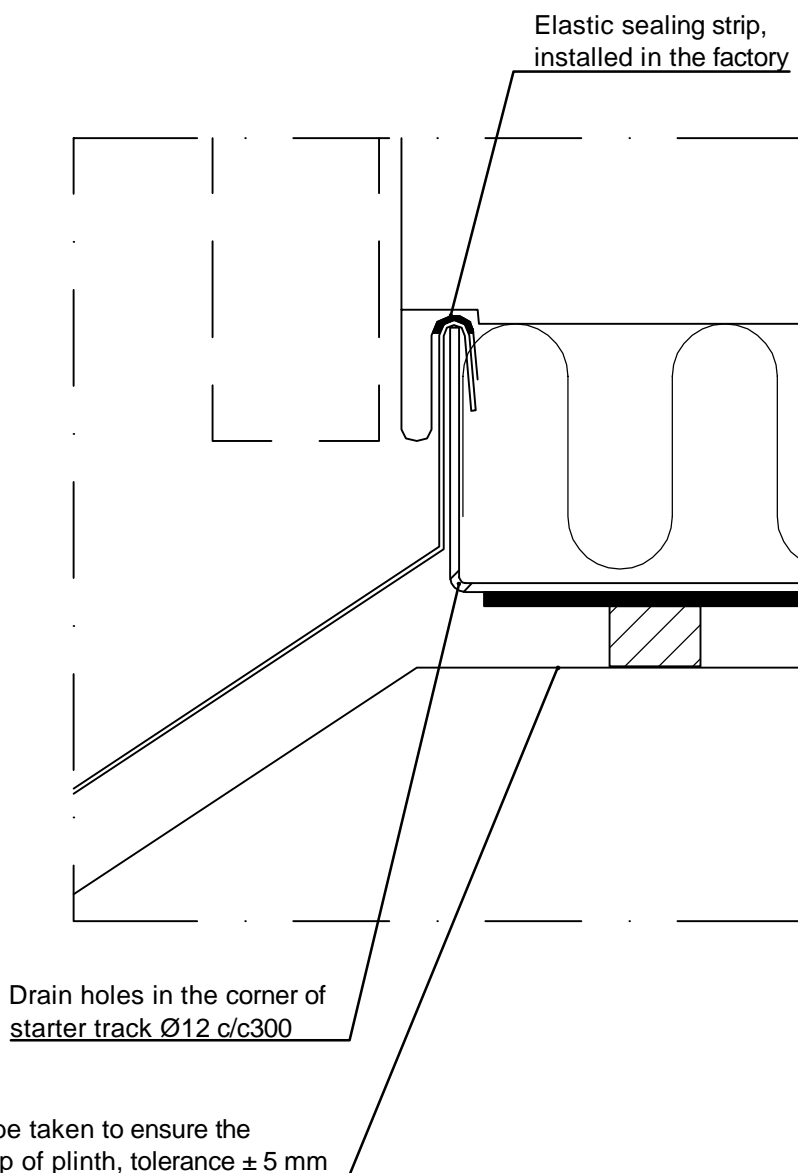
☒ Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation  
Plinth, detail

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

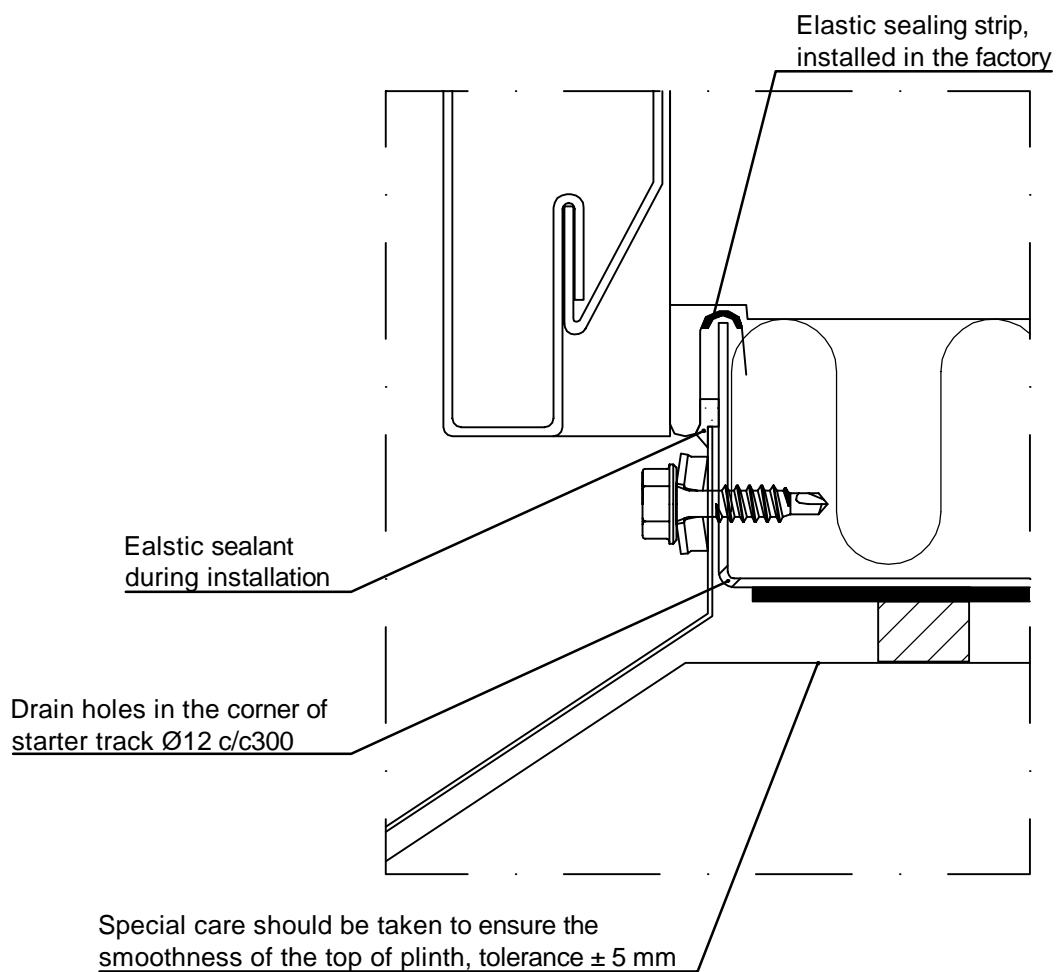




Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation  
Plinth, detail

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

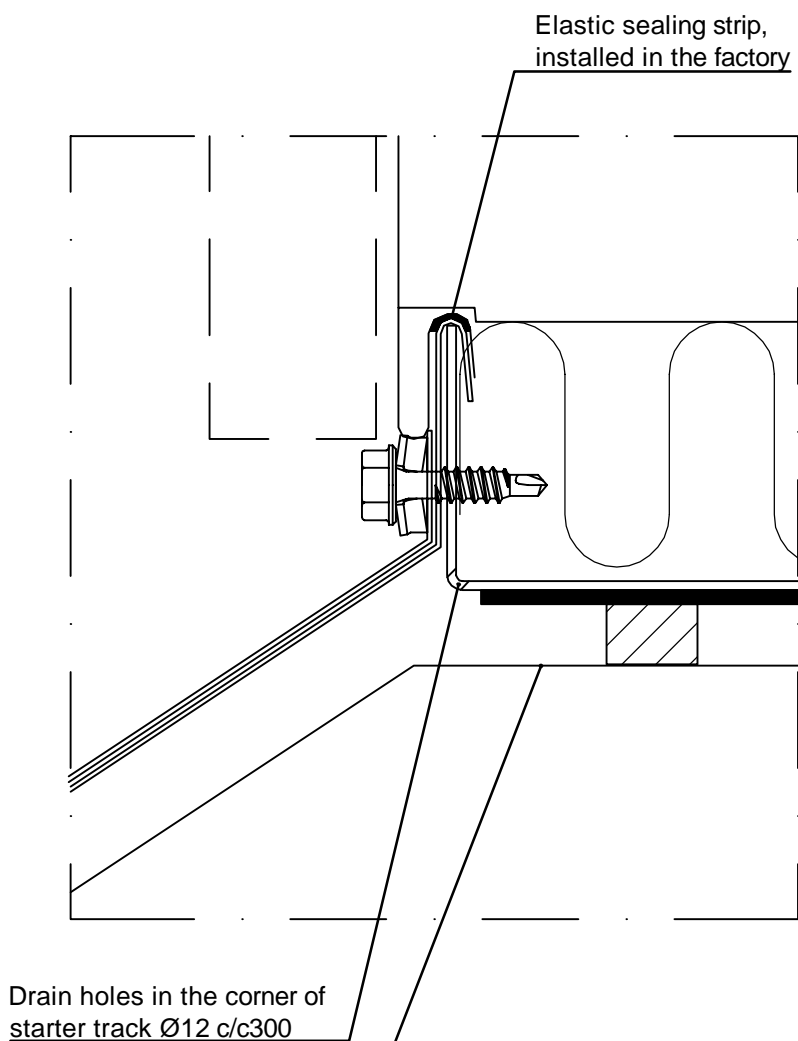




Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation  
Plinth, detail

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

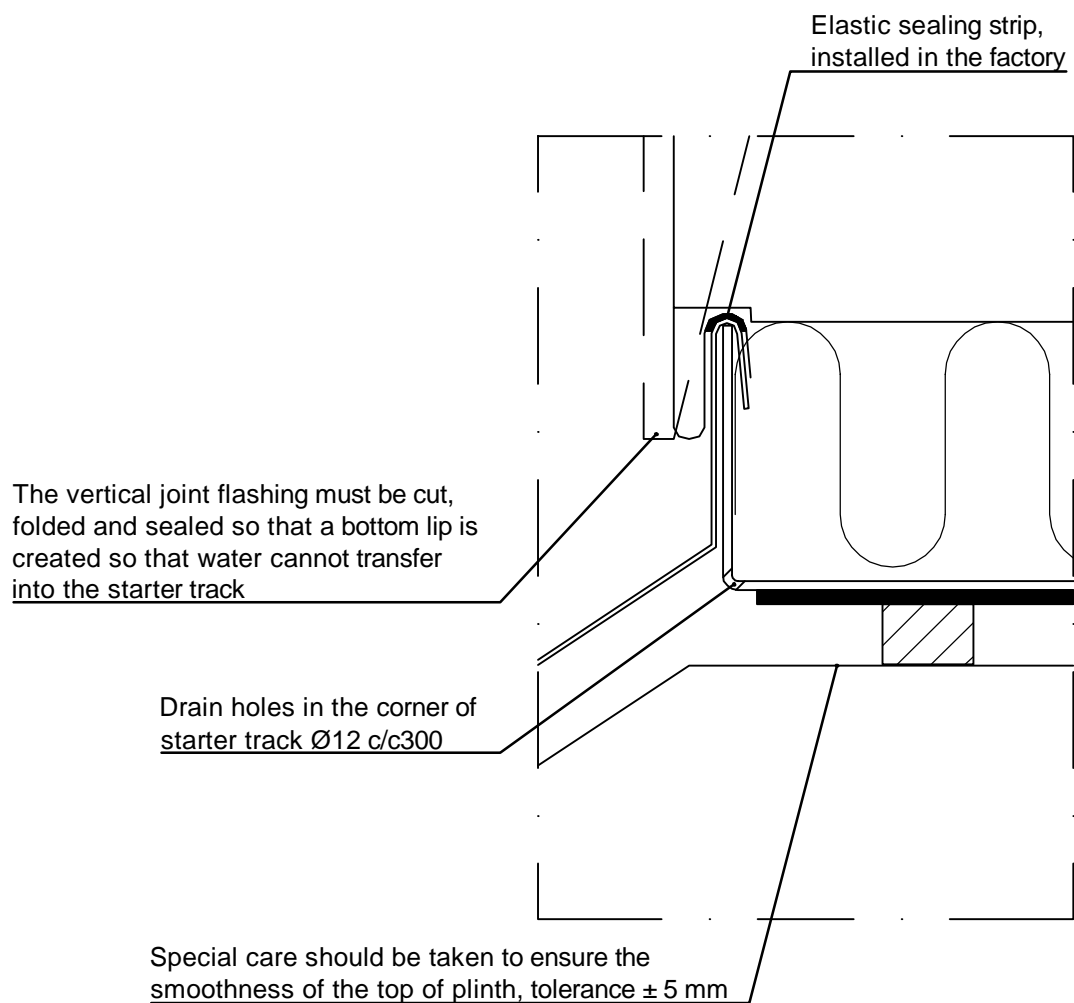




Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation  
Plinth, detail

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



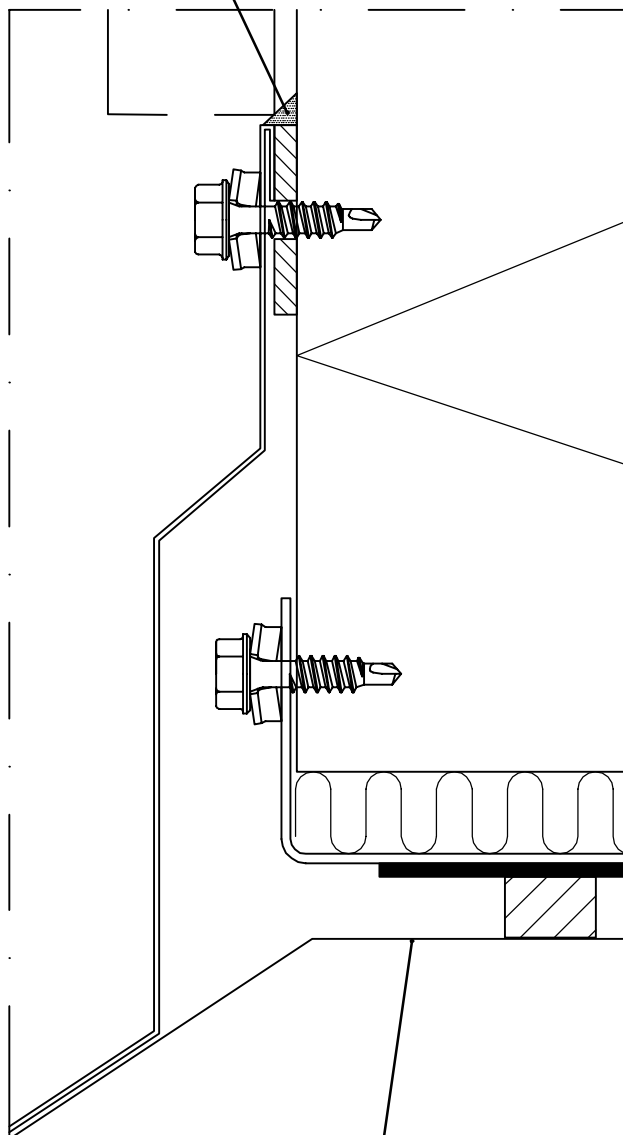


Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation  
Plinth, detail

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

Ruukki sealant mastic  
after installation



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



Contents of drawing

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

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

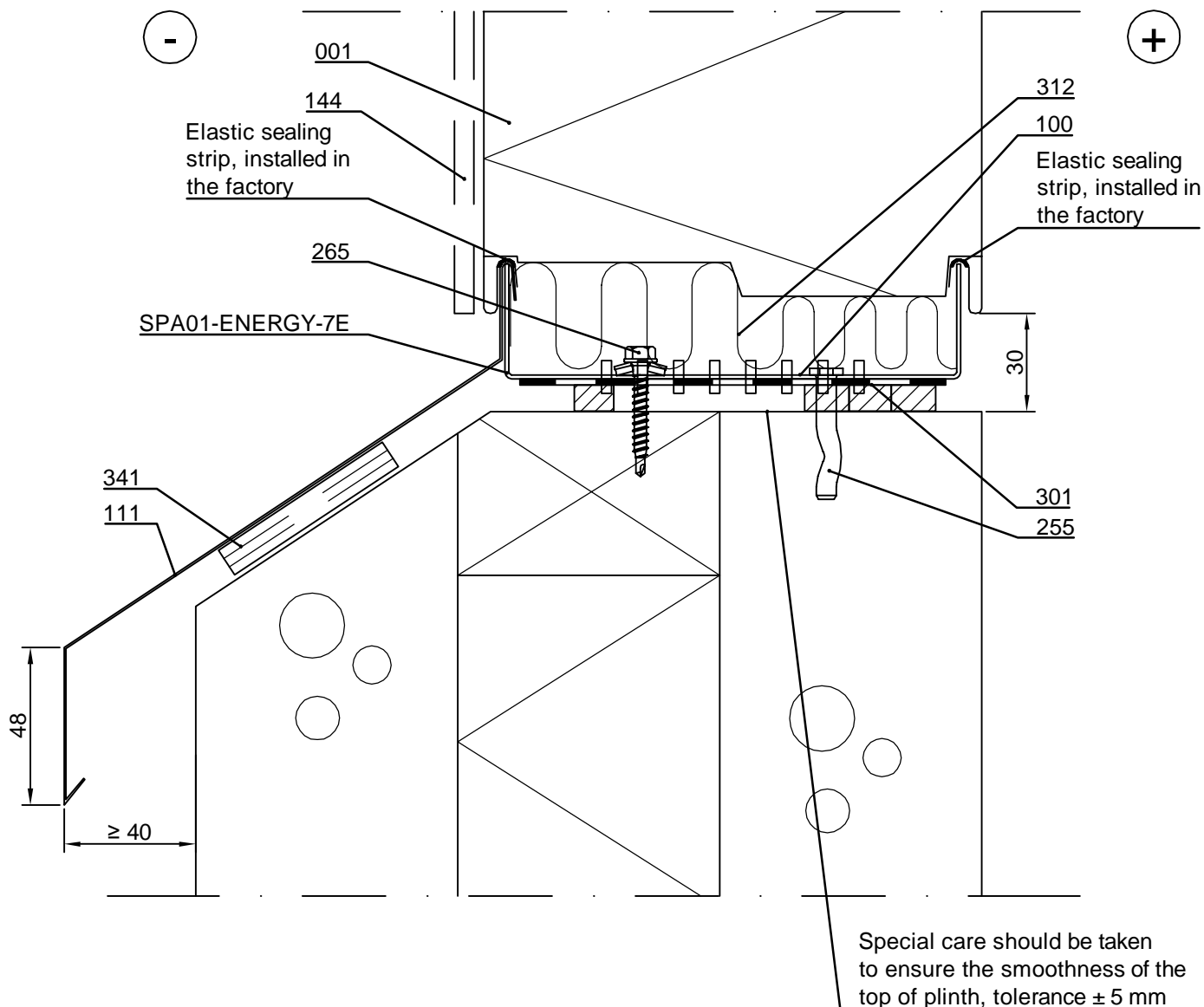
Ruukki sealant mastic  
after installation

Ruukki sealant mastic to female groove  
during installation

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



|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA01-ENERGY-30E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                    |
| Scale<br>1:5       | Building  | File nr. |                                    |



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1U\_\_\_/ U-Plinth purlin
- ☐ 111. /EA1P3-\_\_\_/ Plinth flashing (installed simultaneously with panels)
- ☐ 144. /EA1JVI/ Vertical joint flashing, Invisible
- ☐ 255. /S5R48038/ Spike-fastener, concrete c/c600
- ☐ 265. /S3H55042WA4B/ Fastener, wood c/c600
- ☐ 301. /EA3PSE/ Plinth sealing expanding (wider sealing on internal side)
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 341. Plywood, if necessary

☒ Ruukki's delivery

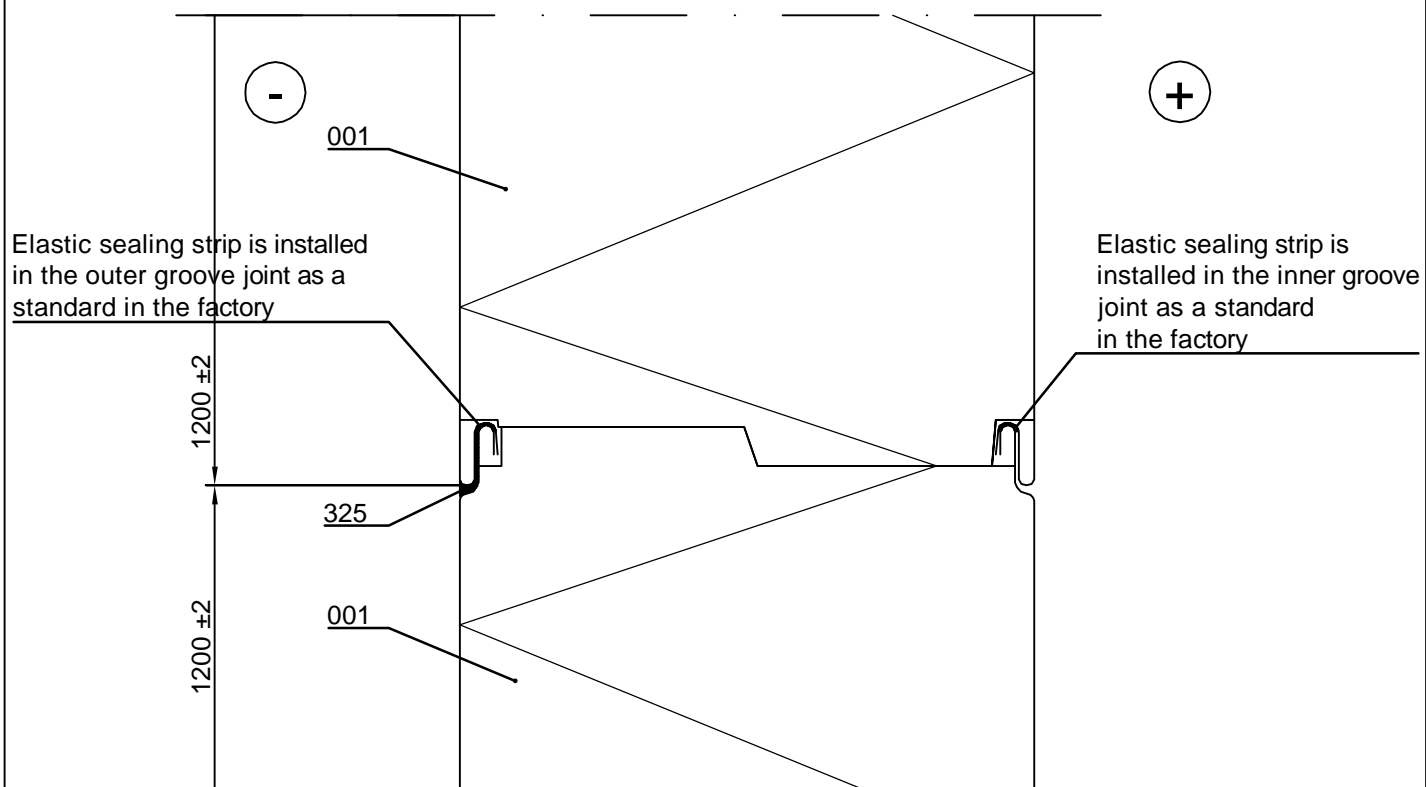


Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation

Joint between panels, vertical section

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



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

☒ Ruukki's delivery

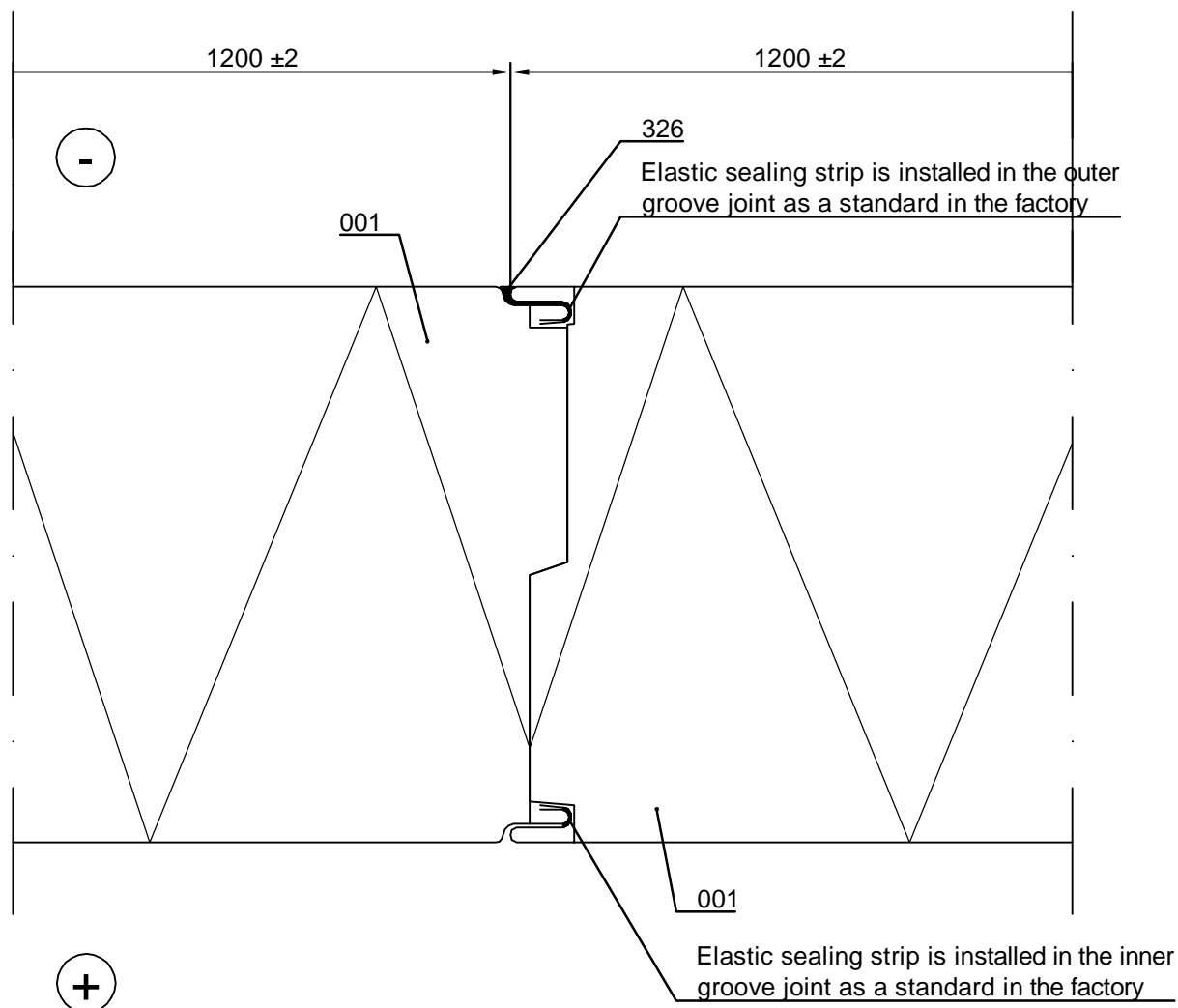
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Contents of drawing

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

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



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

☒ Ruukki's delivery

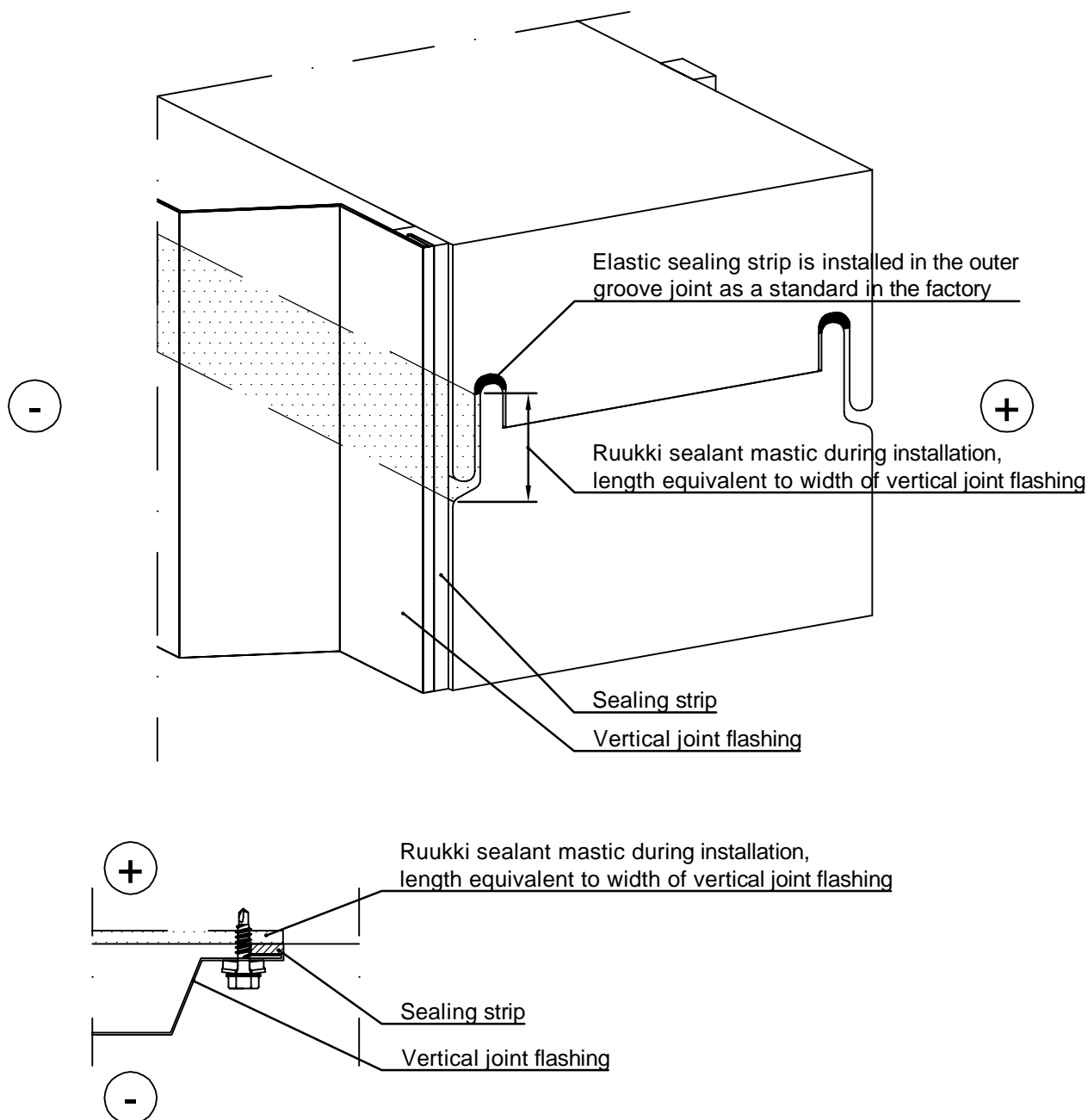
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Contents of drawing

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

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



Horizontal installation:

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

Vertical installation:

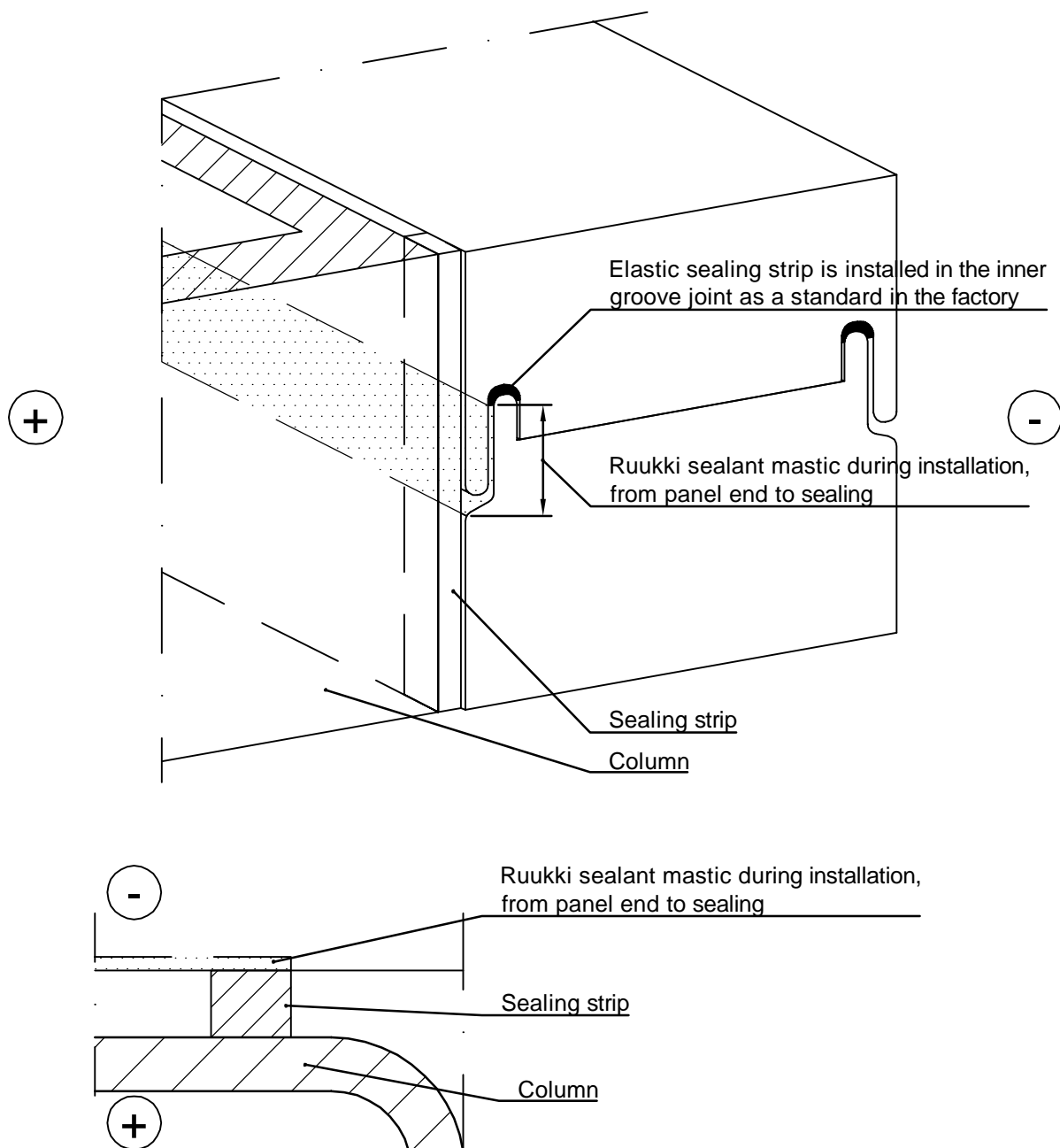
Ruukki sealant mastic during installation to outer female groove in full length of panel and inner female groove 60 mm in length. It is important that the groove is completely filled with sealant mastic, i.e. it must be applied before interlocking the joint.



Contents of drawing

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

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



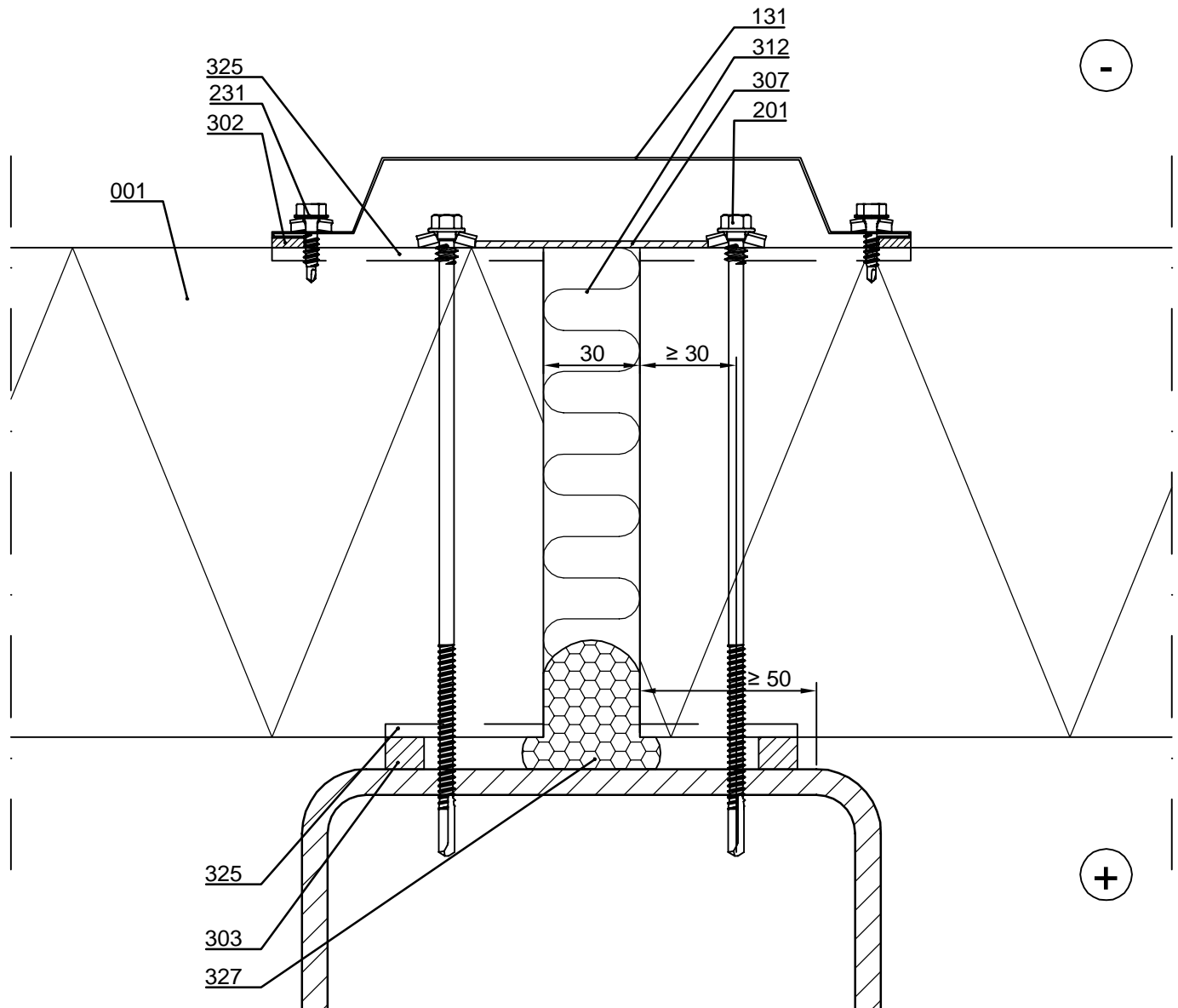
Horizontal installation:

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

Vertical installation:

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

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

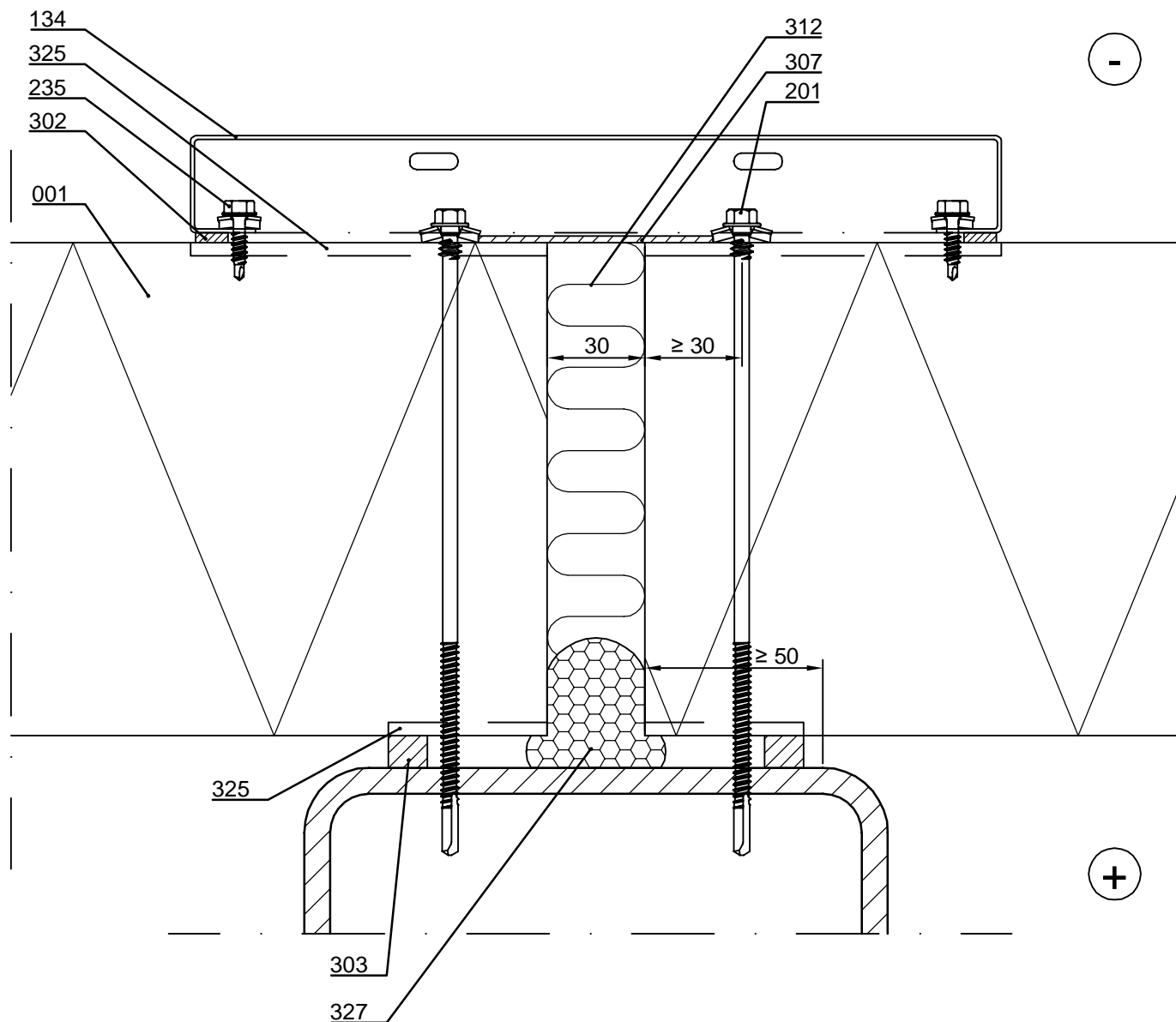


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing  
(for demanding climate conditions e.g.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

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

☒ Ruukki's delivery

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



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

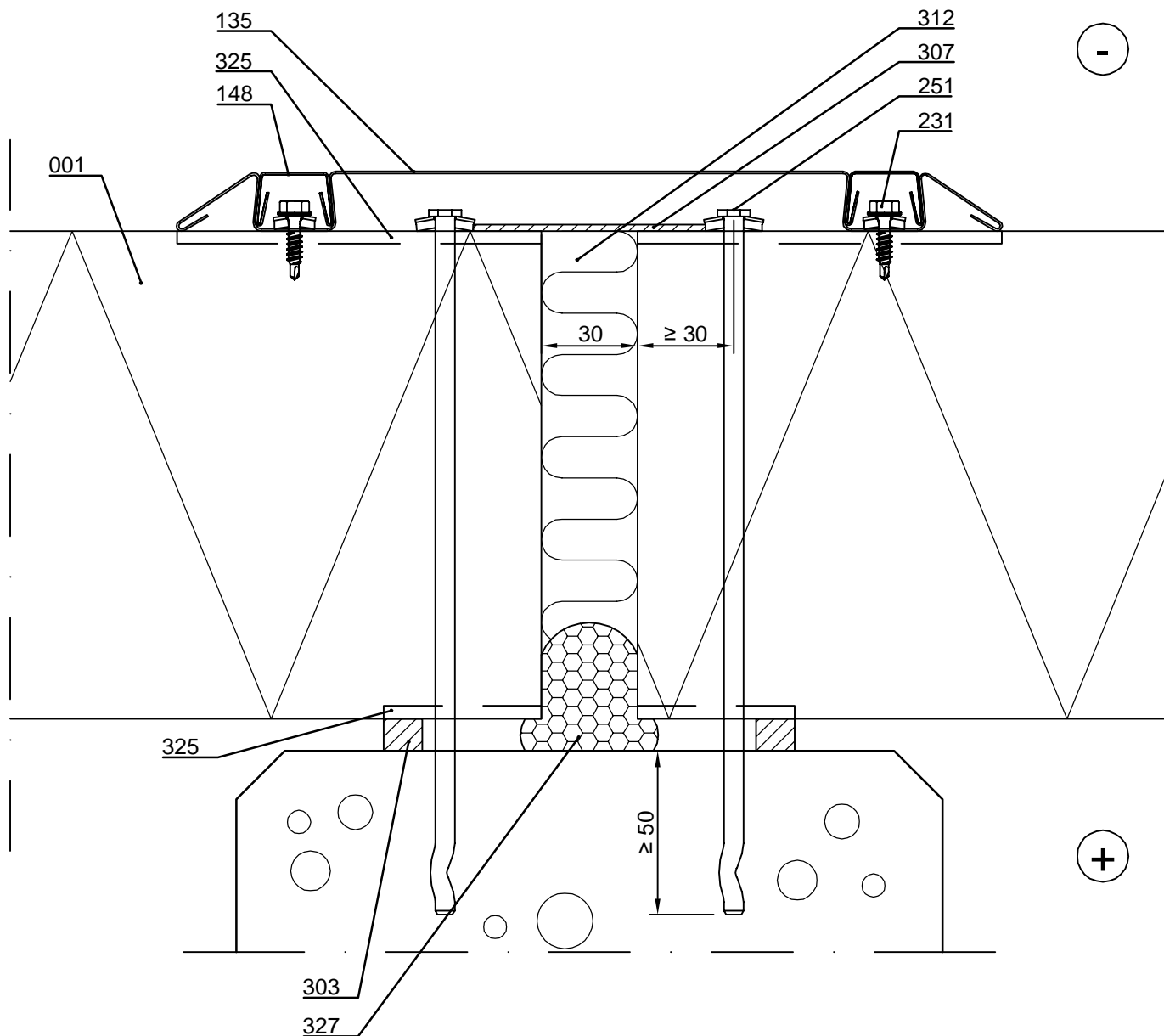
☒ Ruukki's delivery



Contents of drawing

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

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



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

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

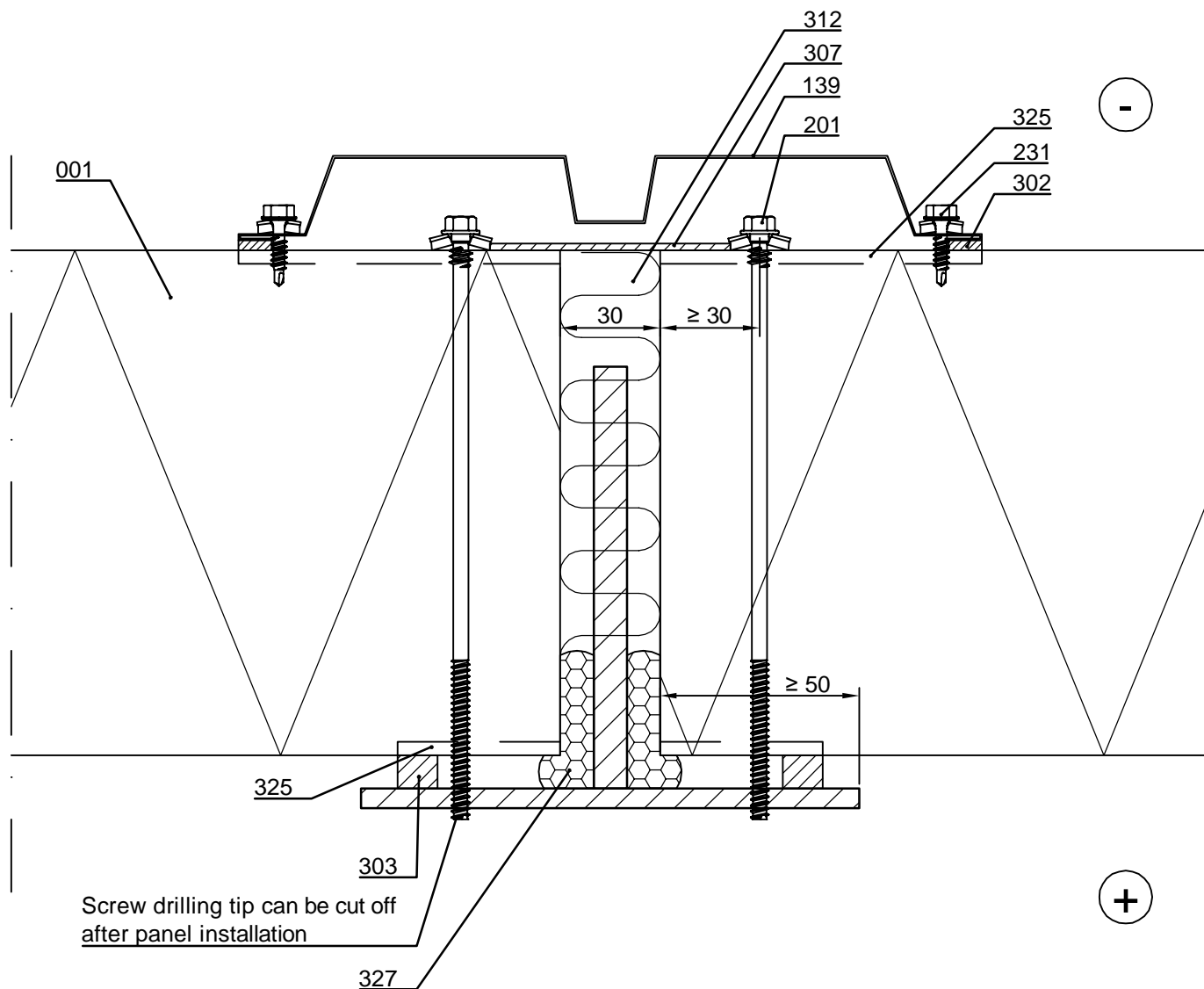
☒ Ruukki's delivery

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

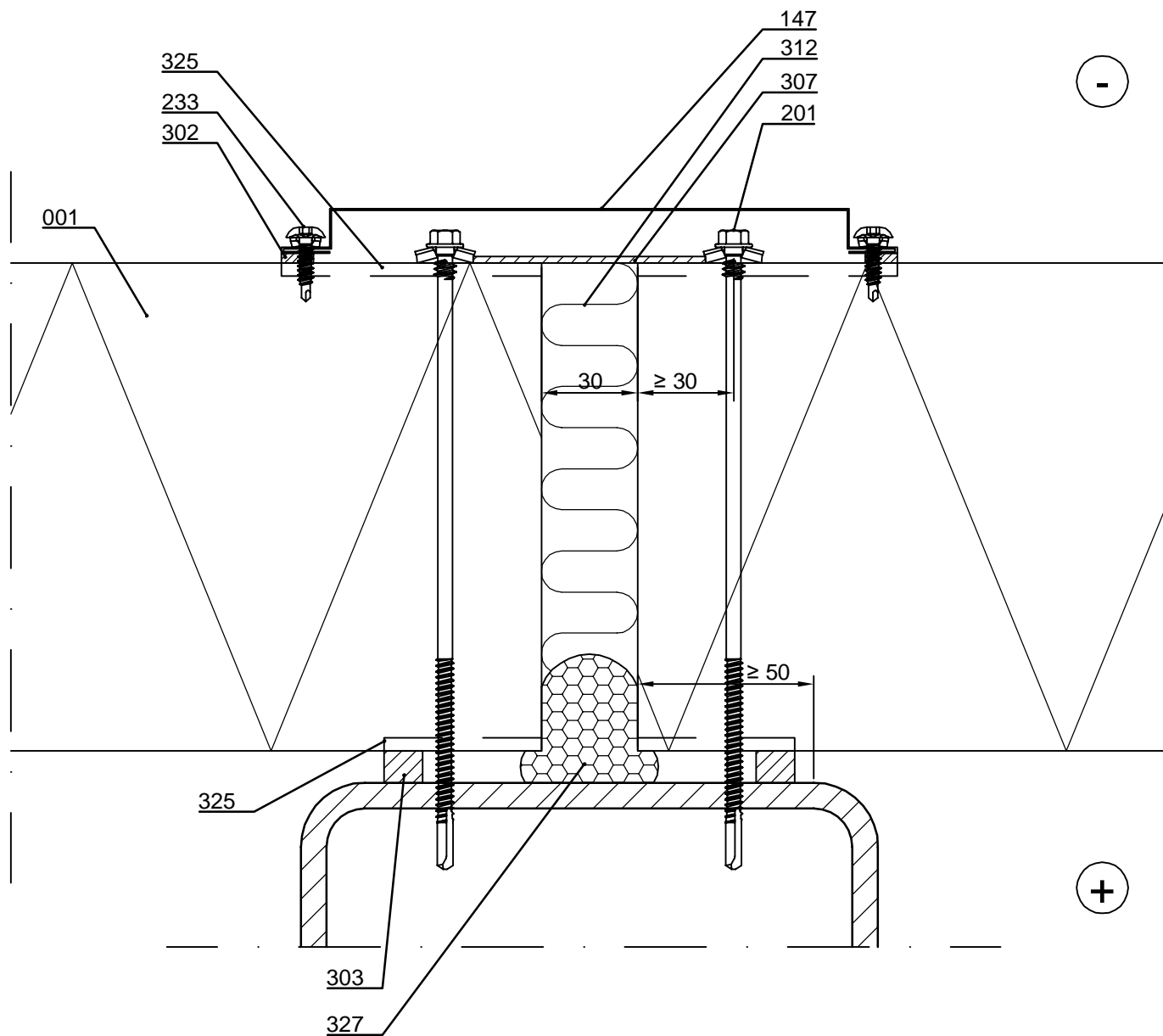


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 139. /EA1JV3/ Vertical joint flashing
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing  
(for demanding climate conditions e.g.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

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

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

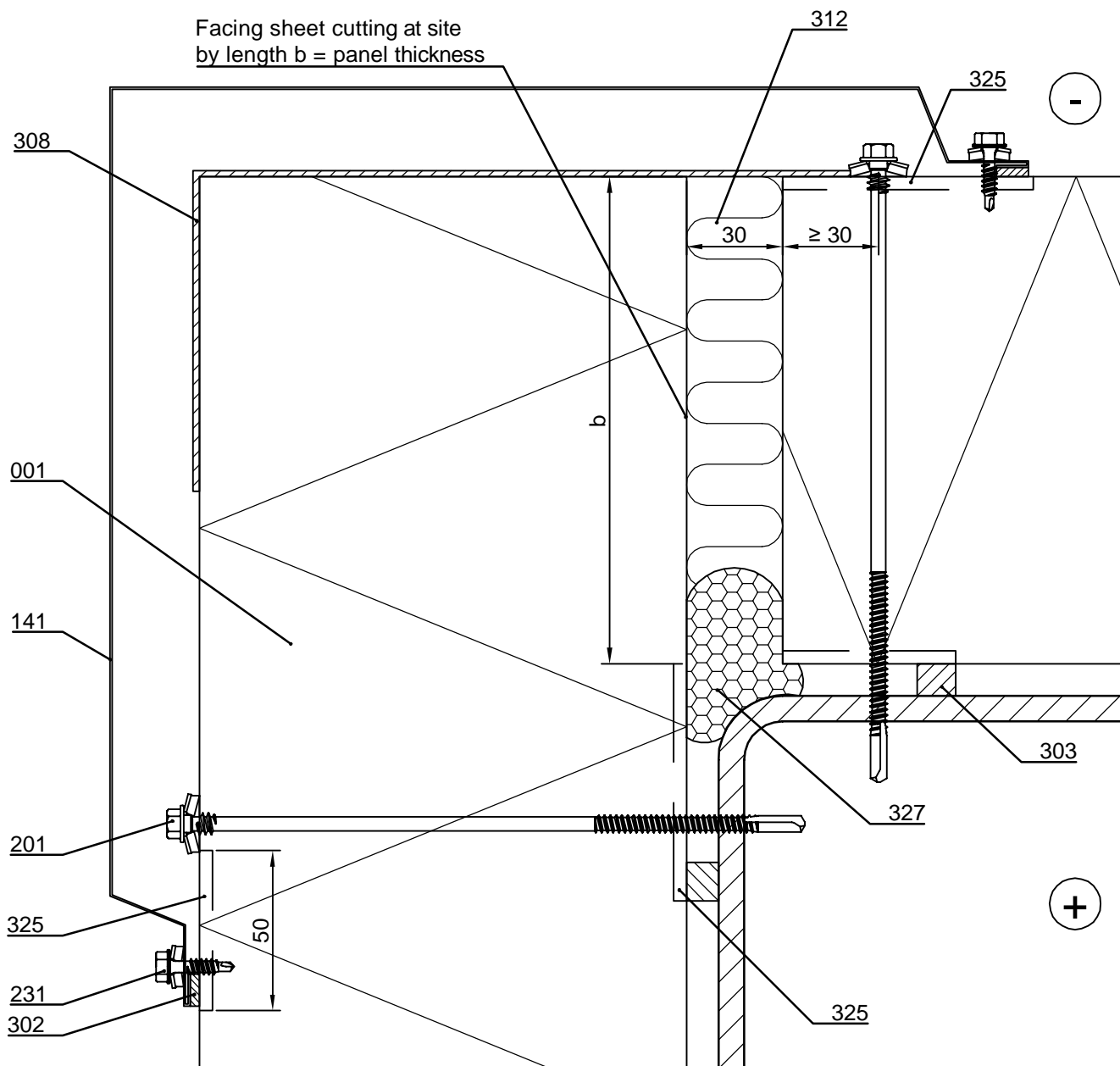


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 147. /EA1JVM/ Vertical joint flashing module
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 233. /S1T48020L02A0RR\_\_\_/ Flashing fastener
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing  
(for demanding climate conditions e.g. coastal areas)
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 307. Ruukki Wind Joint Tape 75 mm
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 325. Ruukki sealant mastic during installation  
to outer female groove in length equivalent to  
vertical joint flashing width and to inner female  
groove from panel end to sealing
- ☐ 327. Elastic polyurethane foam

☒ Ruukki's delivery



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

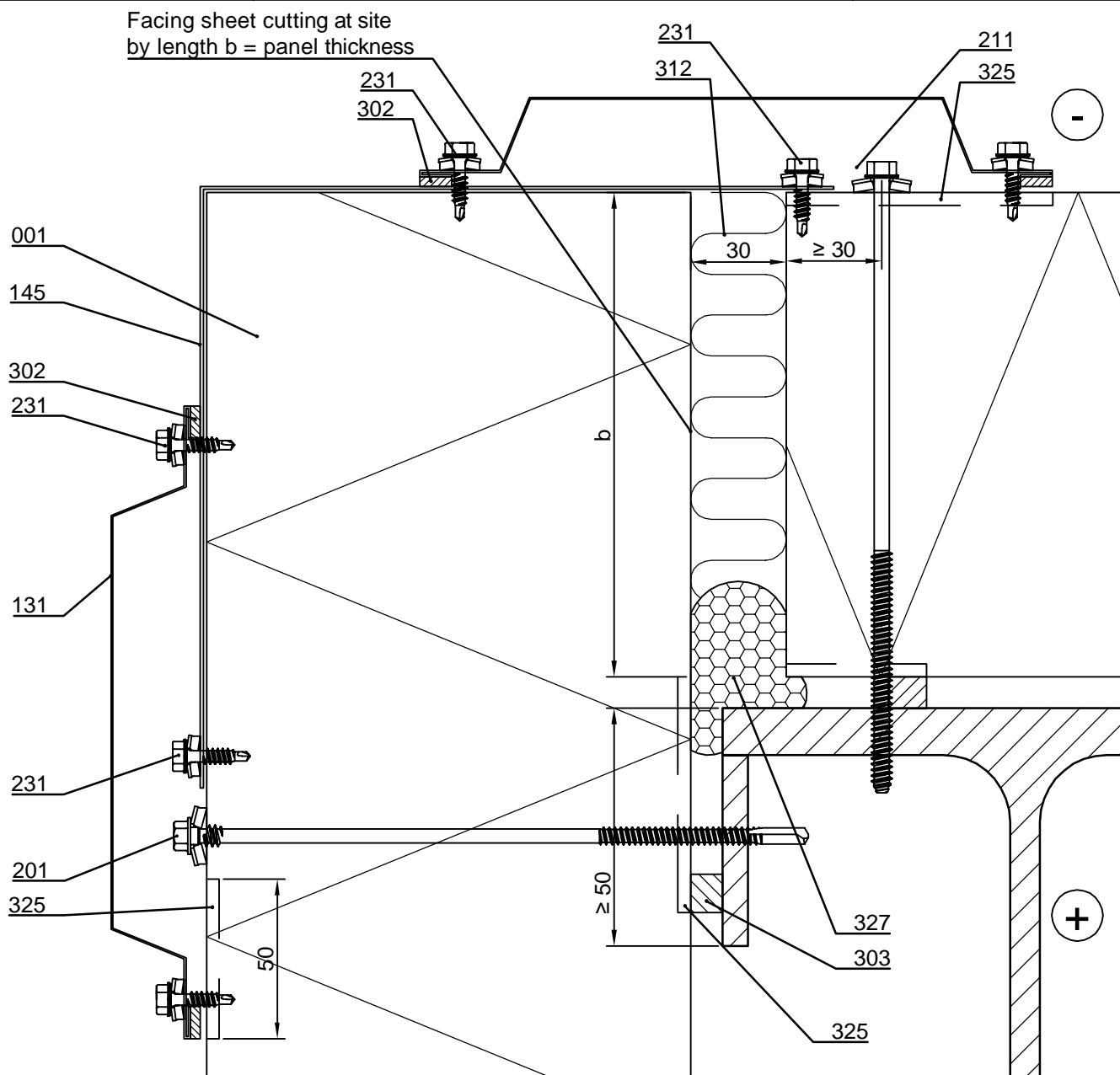


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 141. /EA1EC1-3/ External corner flashing, recommended panel thickness  $\leq 150$  mm
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing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

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

☒ Ruukki's delivery

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

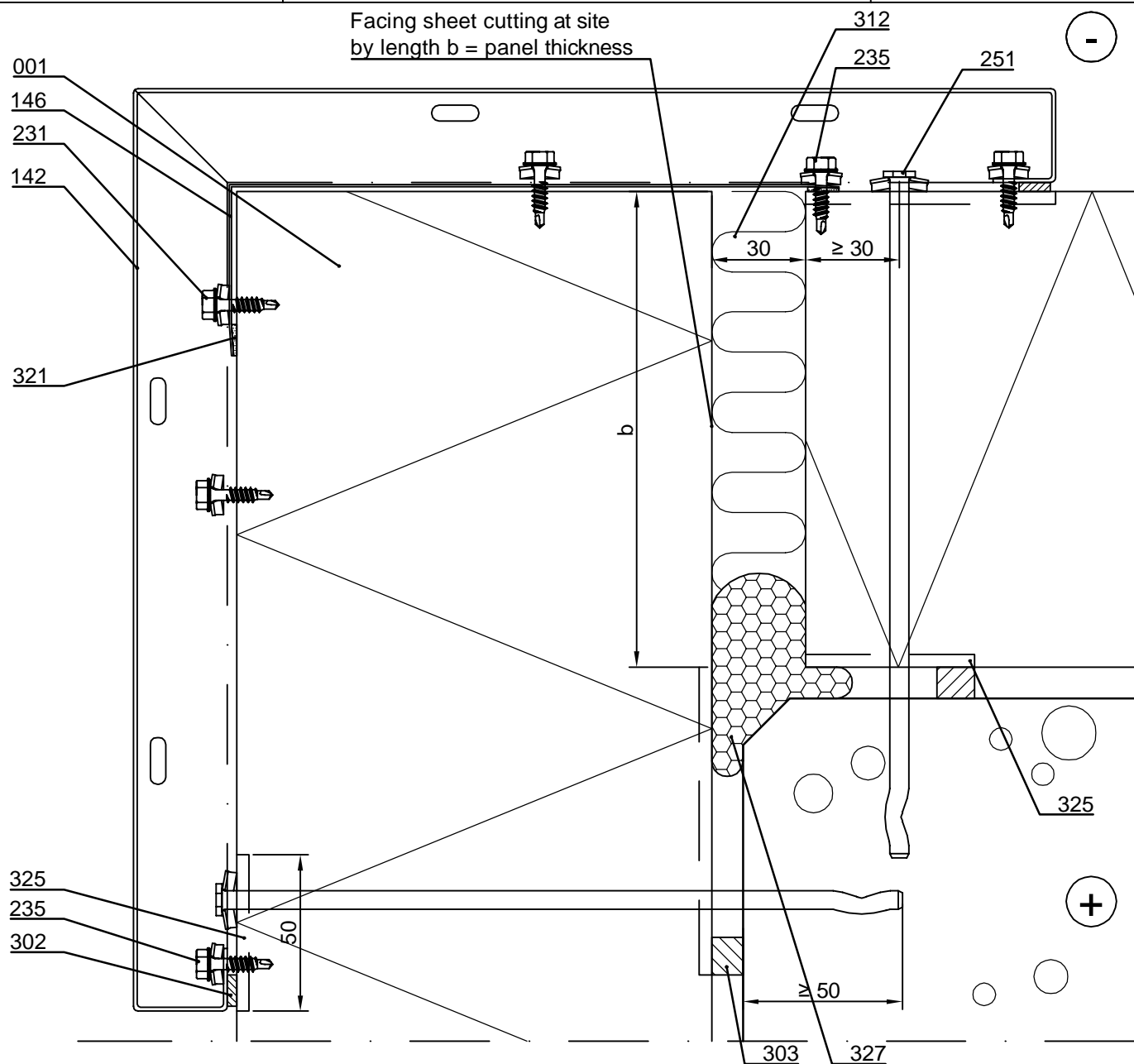


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 145. /EA1EC10-\_\_\_/ External corner flashing, (limited range of colours)
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 211. Self-threading element screw, washer with sealing
- ☐ 231. Flashing fastener, 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. /EAWS\_\_\_/ Mineral wool
- ☐ 325. Ruukki sealant mastic during installation to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- ☐ 327. Elastic polyurethane foam

☒ Ruukki's delivery

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

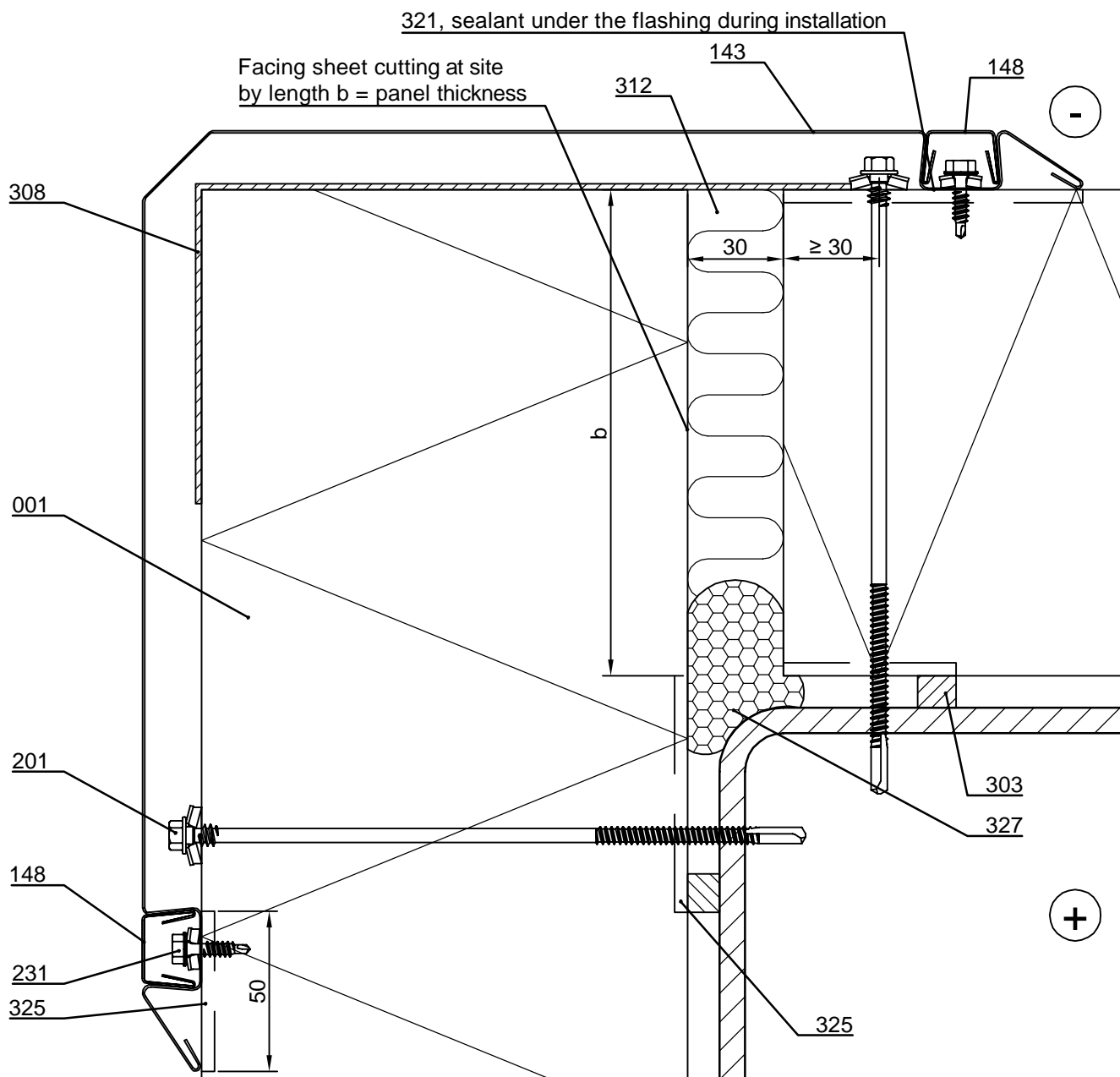


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 142. /EA1EC11-14/ External corner panel
- ☐ 146. /EA1EC9-\_\_\_/ External corner flashing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 235. Joint panel fastener, stainless steel, washer with sealing
- ☐ 251. Spike panel fastener, washer with sealing
- ☐ 302.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

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

☒ Ruukki's delivery

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



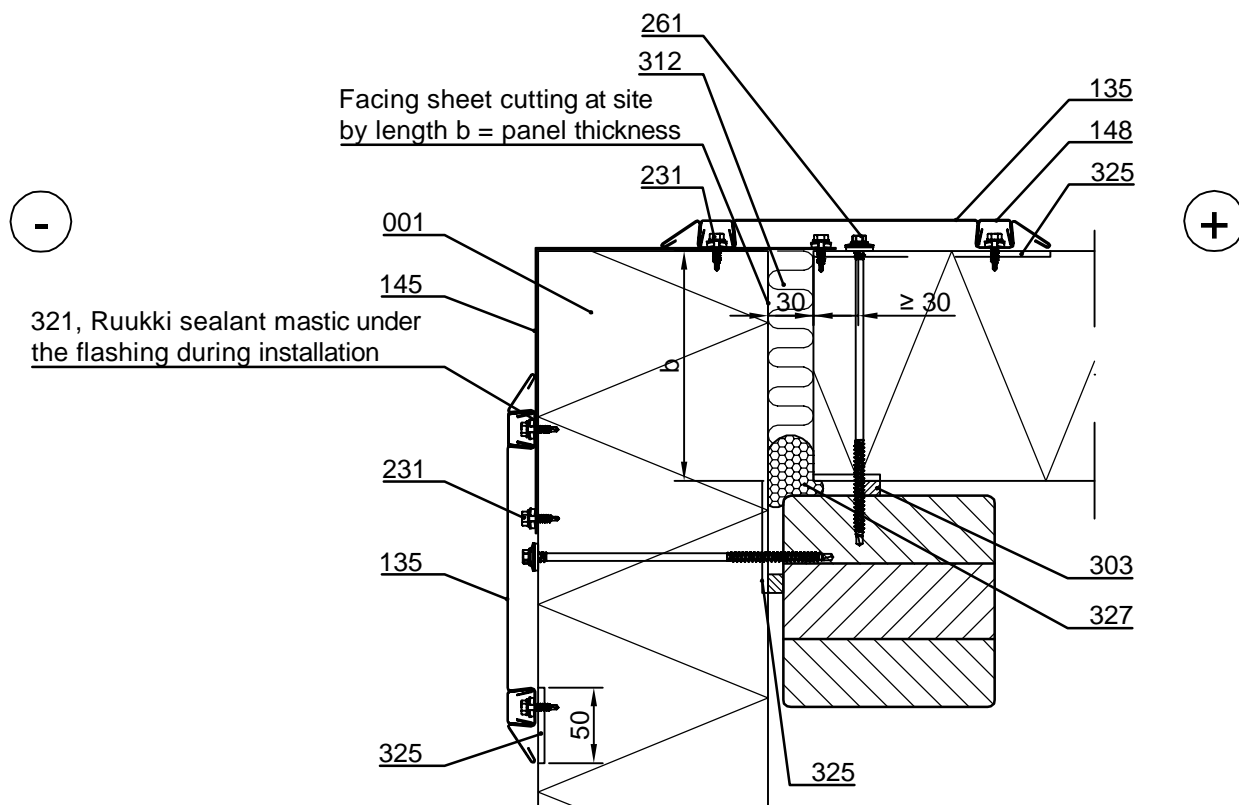
- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 143. /EA1EC5/ External corner flashing, recommended panel thickness  $\leq 150$  mm
- ☐ 148. /EA1VCO/ Vertical cover flashing
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 303. /EA3SS1210/ Sealing strip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

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

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|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA04-ENERGY-5E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
| Scale<br>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. /EAWS\_\_\_/ Mineral wool
- ☐ 321. Ruukki sealant mastic
- ☐ 325. Ruukki sealant mastic during installation  
to outer female groove in length equivalent to vertical joint flashing width and to inner female  
groove from panel end to sealing
- ☐ 327. Elastic polyurethane foam

☒ Ruukki's delivery



Contents of drawing

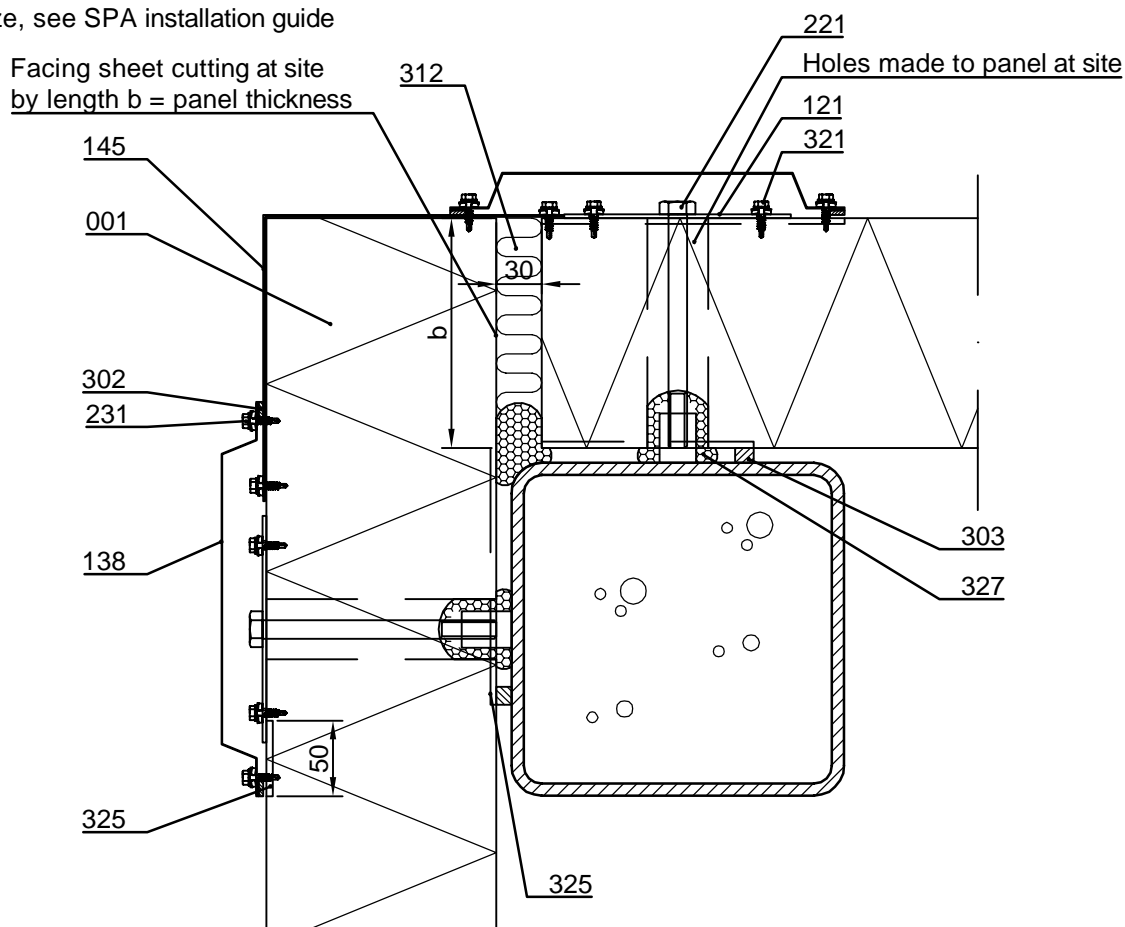
Sandwich panel SPA ENERGY, horizontal inst.  
External corner, horizontal section  
Concrete filled column, option 6

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

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

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

Note! For bolt size, see SPA installation guide

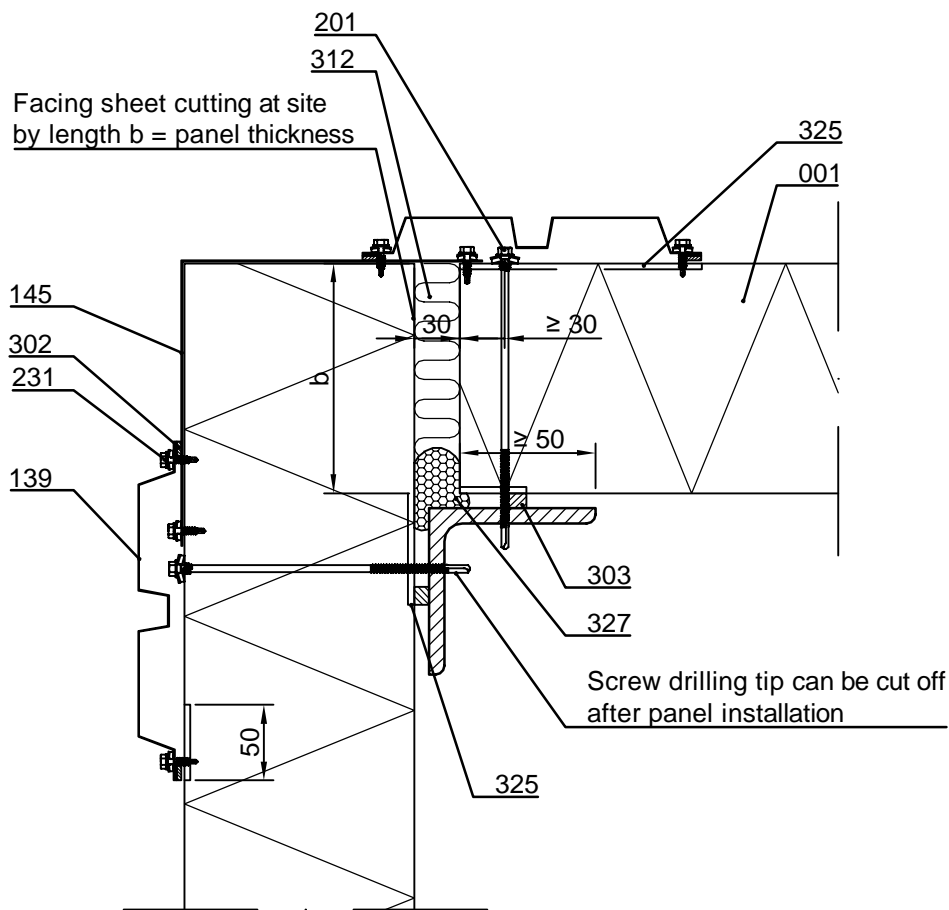


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 121. /EA6FP\_/ Fastening plate
- ☐ 138. /EA1JV2/ Vertical joint flashing
- ☐ 145. /EA1C10-\_\_\_/ External corner flashing, t = 1 mm / 1.2 mm (limited range of colours)
- ☐ 221. Internal threaded socket and hex bolt
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 325. Ruukki sealant mastic during installation  
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- ☐ 327. Elastic polyurethane foam

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



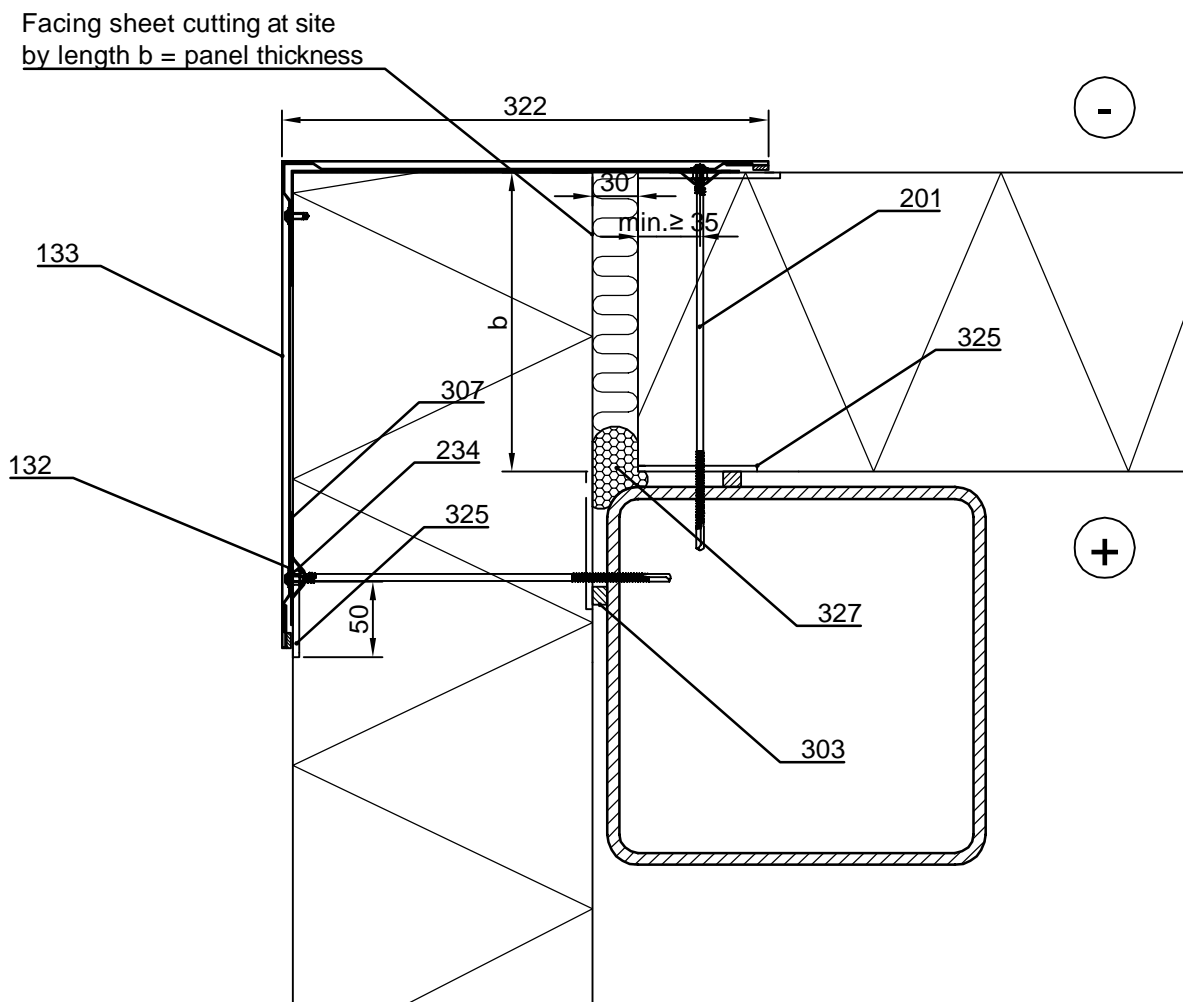
Secondary steel supports for panels according to structural designer.

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

- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 139. /EA1JV3/ Vertical joint flashing
- ☐ 145. /EA1C10-\_\_\_/ Vertical joint flashing, t = 1 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. /EAWS\_\_\_/ Mineral wool
- ☐ 325. Ruukki sealant mastic during installation  
to outer female groove in length equivalent to vertical joint flashing width and to inner female groove from panel end to sealing
- ☐ 327. Elastic polyurethane foam

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

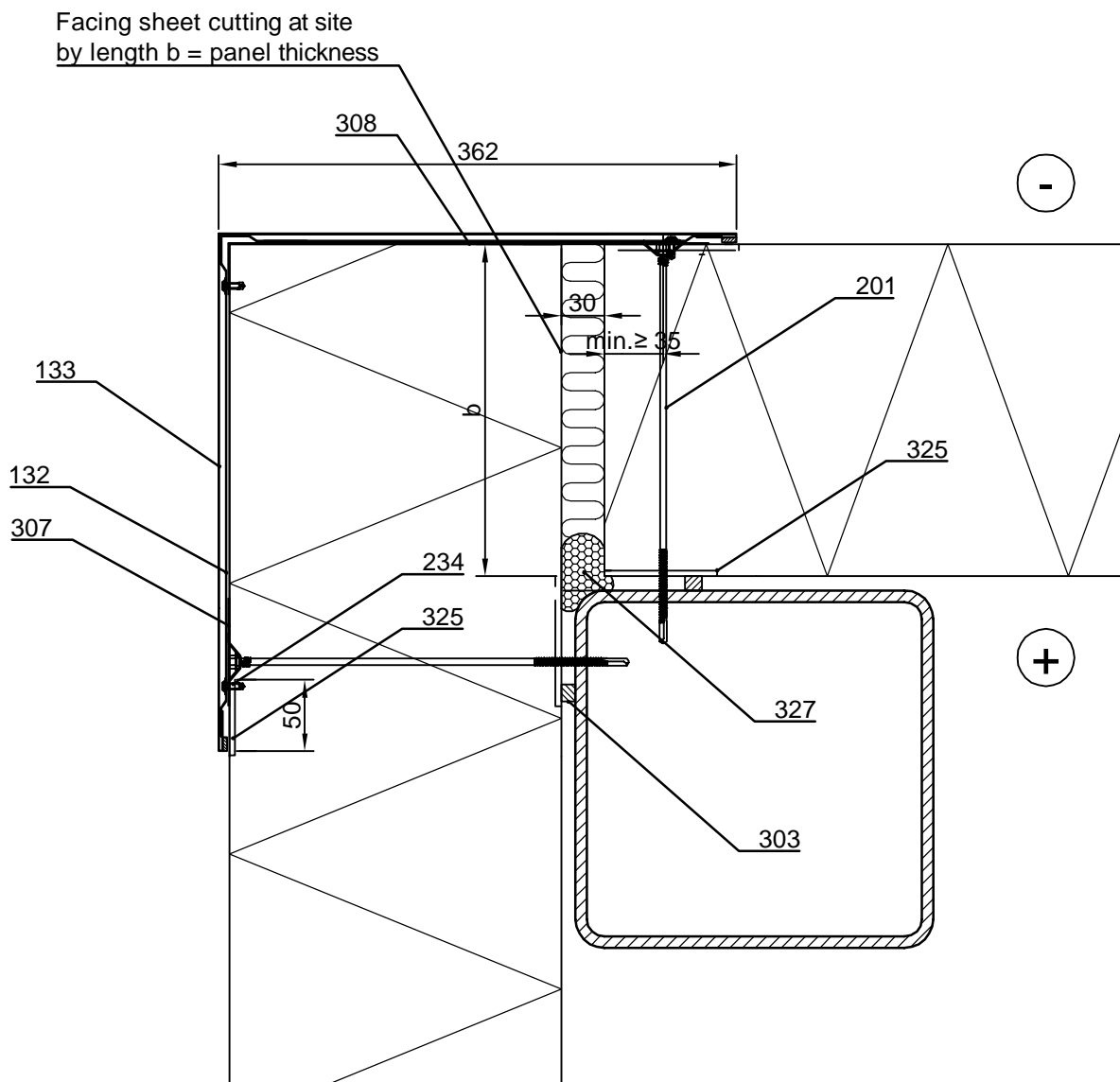


Flashings 132 and 133 are used in all < 230 mm panels.

- |   |   |
|---|---|
| <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"/> 307. Ruukki Wind Joint Tape 75 mm              |
| <input type="checkbox"/> 133. /EA1ECI/ External corner flashing Invisible | <input type="checkbox"/> 308. Ruukki Wind Joint Tape 300 / 370 mm       |
| <input type="checkbox"/> 201. Self-drilling element screw, without washer | <input type="checkbox"/> 312. /EAWS___/ Mineral wool                    |
| <input type="checkbox"/> 215. /EA2W40-910S/ Countersink washer            | <input type="checkbox"/> 325. Ruukki sealant mastic during installation |
| <input type="checkbox"/> 234. 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                      |

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



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

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

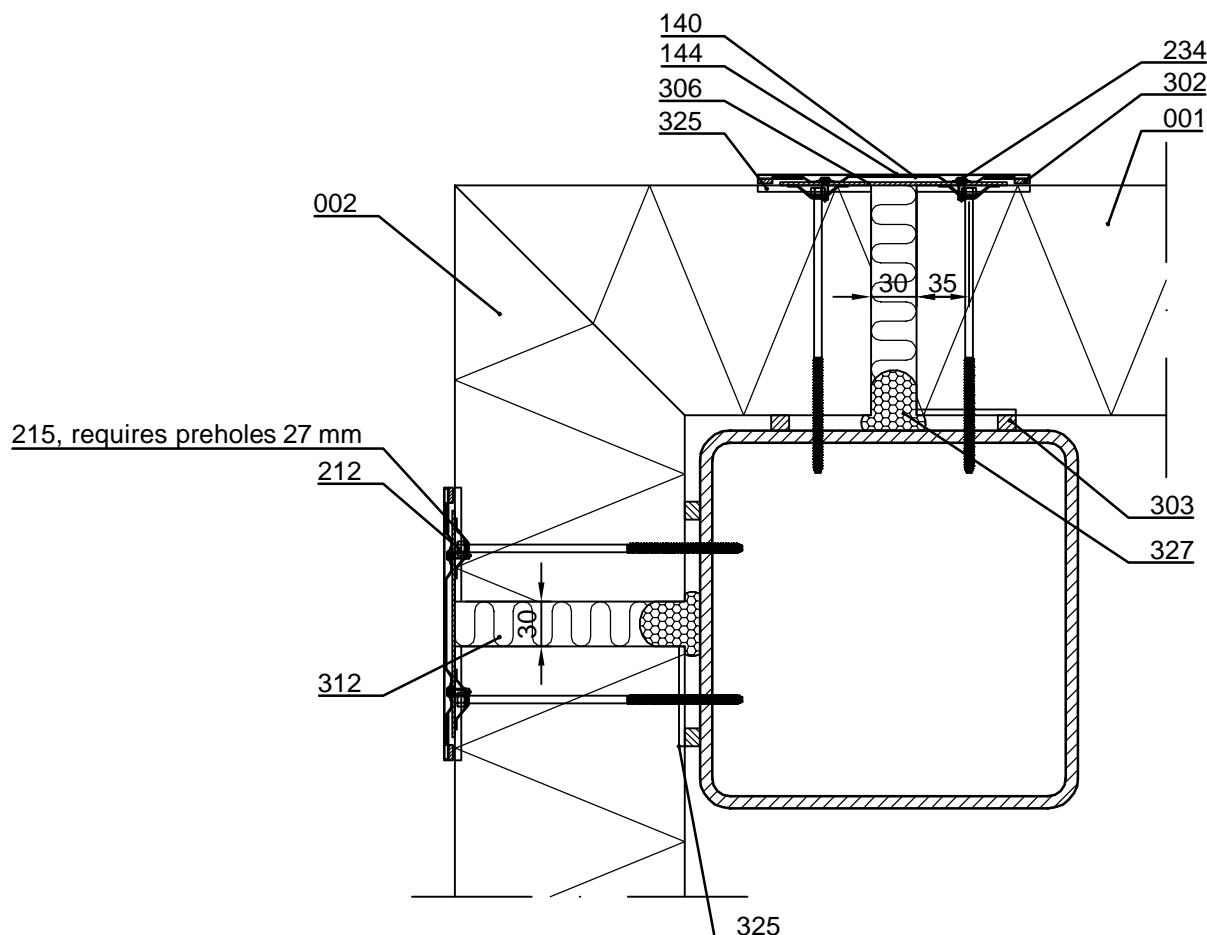
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Contents of drawing

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

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

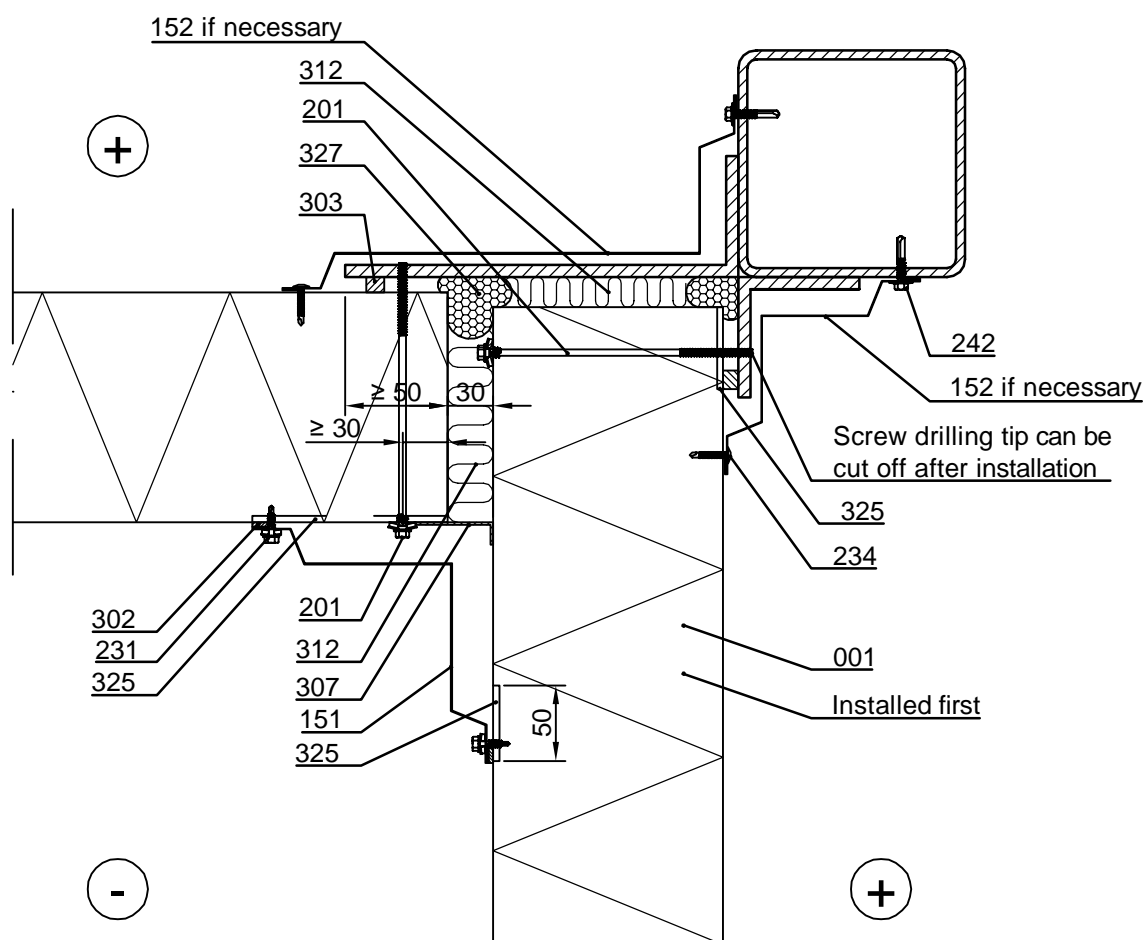


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 002. Sandwich panel SPA ENERGY corner panel,  
(SPA150 - 200 external dimension 300 - 2400 mm, SPA230 external dimension 350 - 2400 mm)
- ☐ 140. /EA1JVB4/ Vertical bottom flashing Invisible
- ☐ 144. /EA1JVI/ Vertical joint flashing Invisible
- ☐ 212. Self-drilling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

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

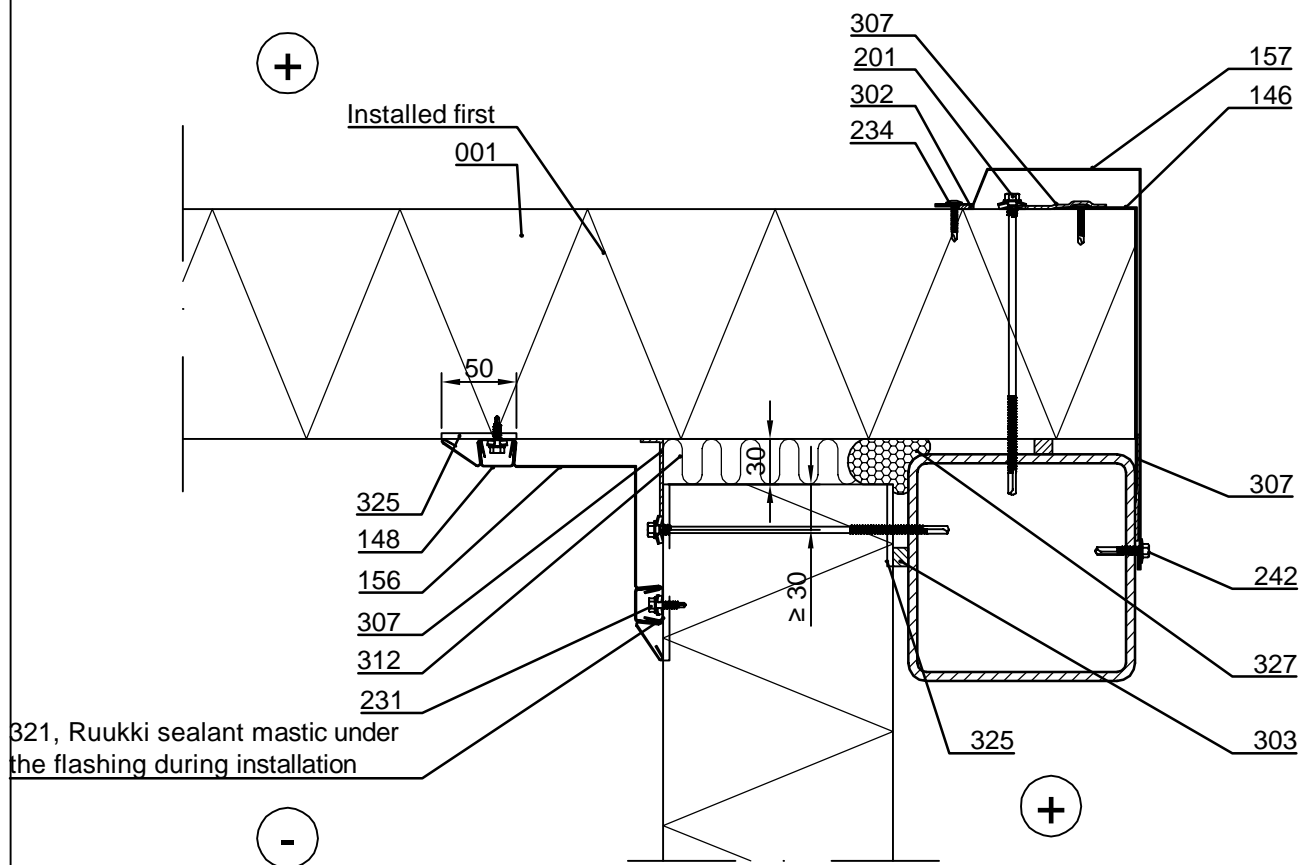


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 151. /EA1IC3/ Internal corner flashing
- ☐ 152. Internal corner flashing, t = 0.6 mm, according to project
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 234. Flat head flashing fastener
- ☐ 242. Fastener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

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

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



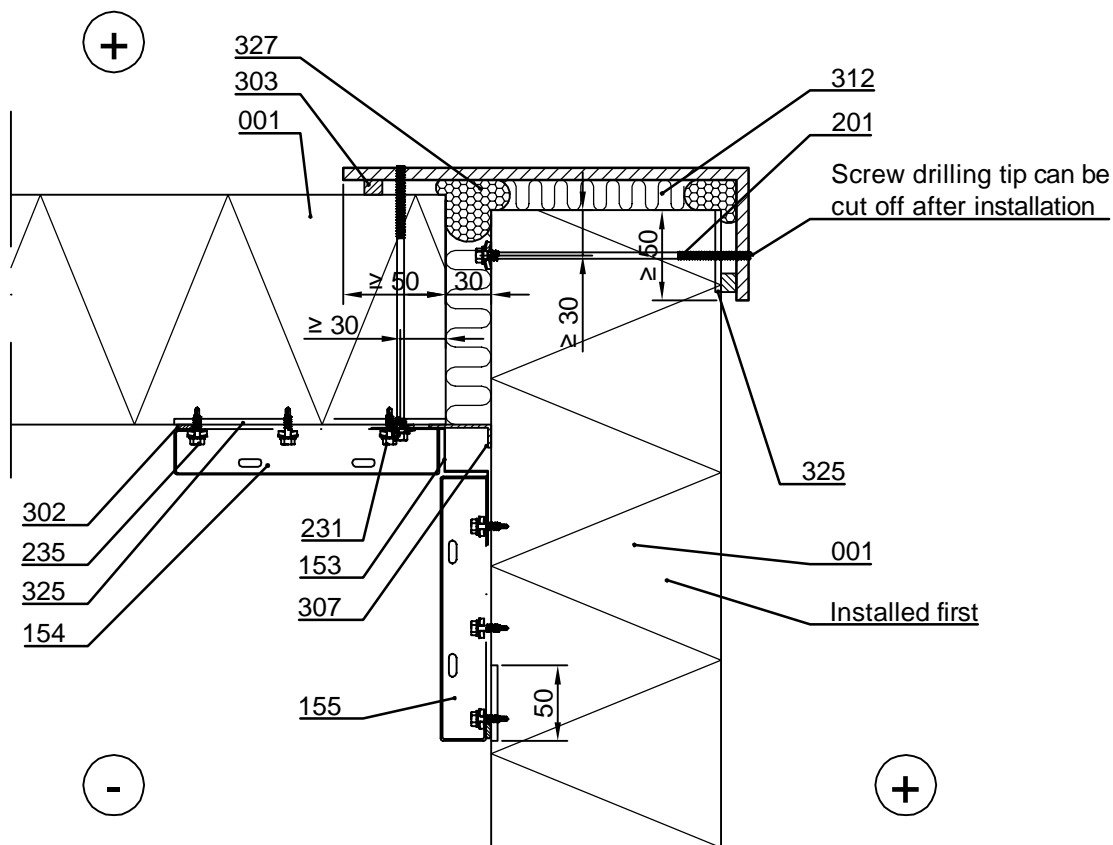
Remember that under internal corner flashing  
EA1IC9 butt joints must be butt strap EA1CJP2

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

☒ Ruukki's delivery



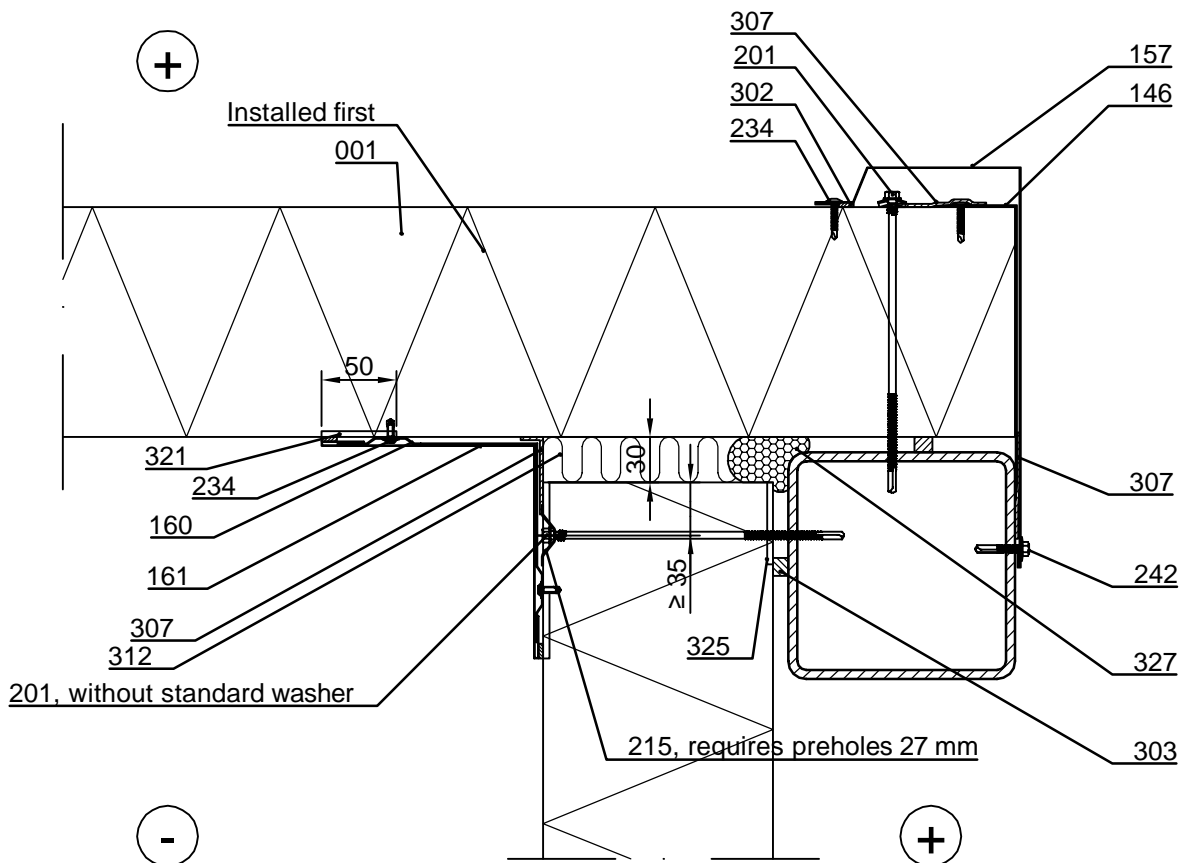
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA05-ENERGY-3E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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



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

☒ Ruukki's delivery

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

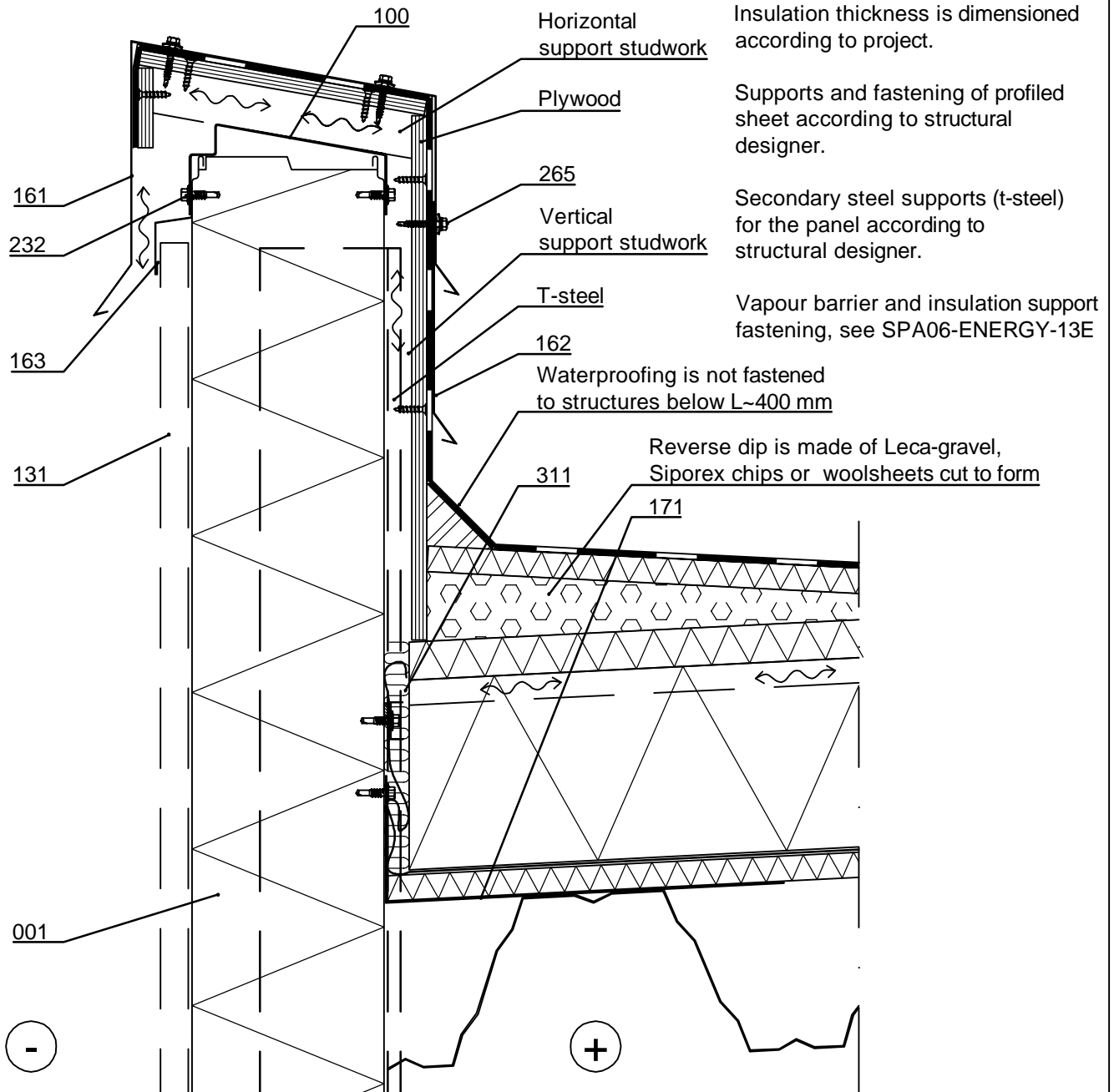


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 146. /EA1EC9-\_\_\_/ External corner flashing
- ☐ 157. Cover flashing t = 0.6 mm, according to project
- ☐ 160. /EA1IXBI/ Internal corner bottom flashing
- ☐ 161. /EA1ICI/ Internal corner flashing
- ☐ 201. Self-drilling screw, washer with sealing
- ☐ 215. /EA2W40-910S/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

☒ Ruukki's delivery

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

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

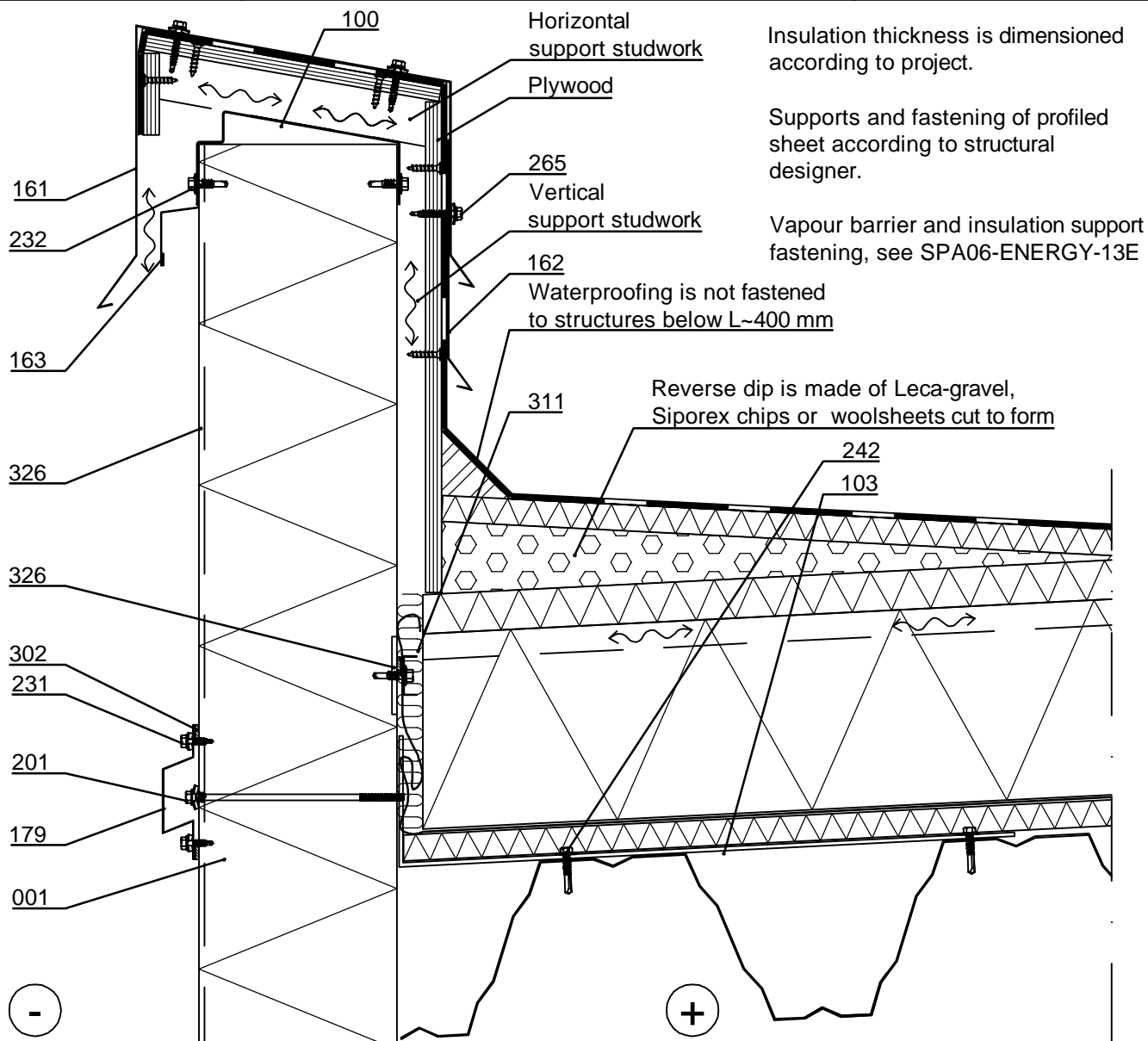


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1EP\_\_\_/ Purlin
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 161. Eave flashing, t = 0.6 mm, according to project
- ☐ 162. Cover flashing, t = 0.6 mm, according to project
- ☐ 163. Storm flashing, t = 0.6 mm, according to project
- ☐ 171. Insulation support flashing, t = 0.6 mm, according to project
- ☐ 232. Flashing fastener, without washer
- ☐ 265. Fastener screw to wood, washer with sealing
- ☐ 311. Mineral wool

☒ Ruukki's delivery

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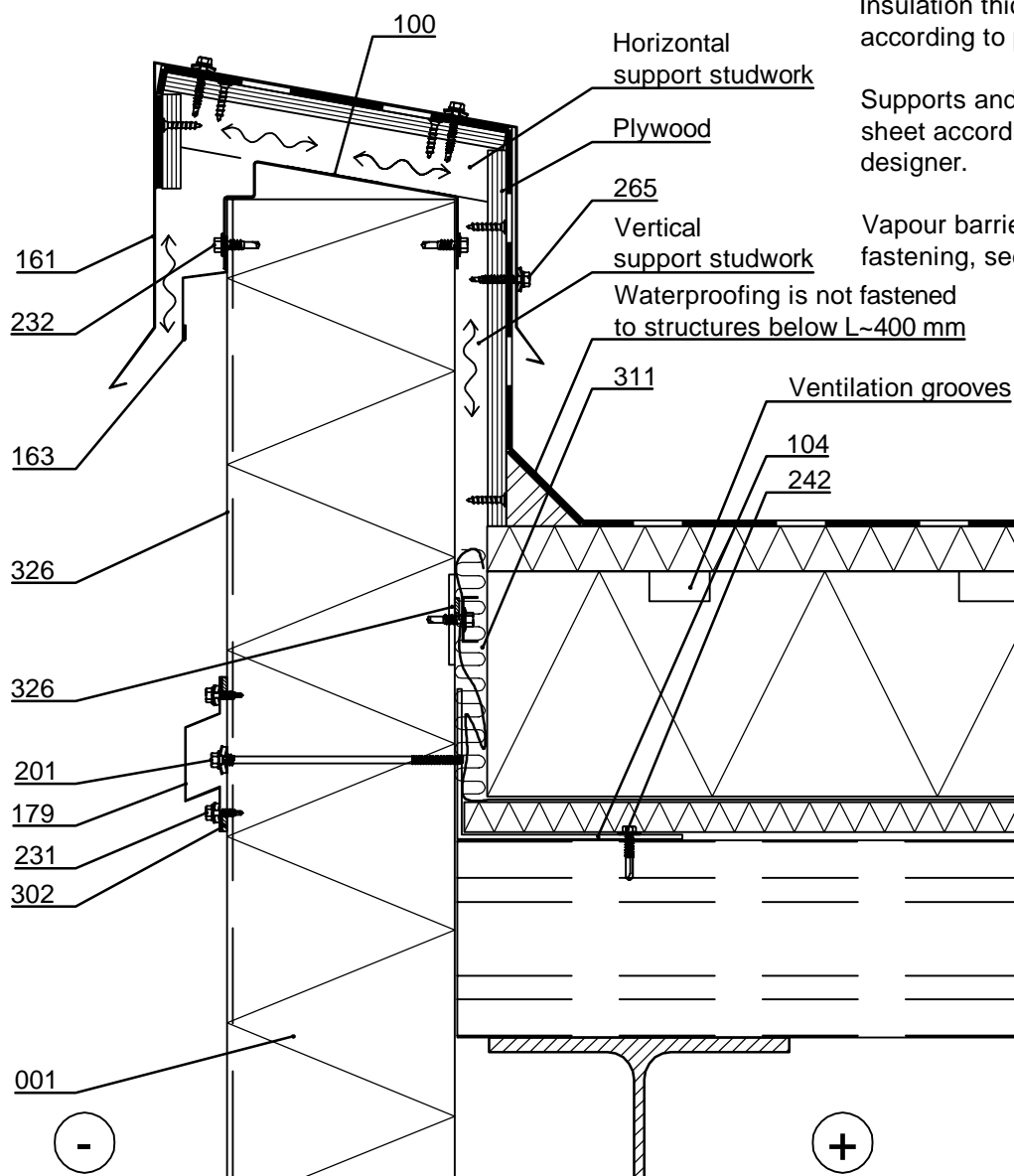
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA06-ENERGY-3E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
| Scale<br>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. Mineral wool
- ☐ 325. Ruukki sealant mastic during installation to outer male groove full length of panel and inner female groove 60 mm in length of panel

☒ Ruukki's delivery

|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA06-ENERGY-4E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
| Scale<br>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

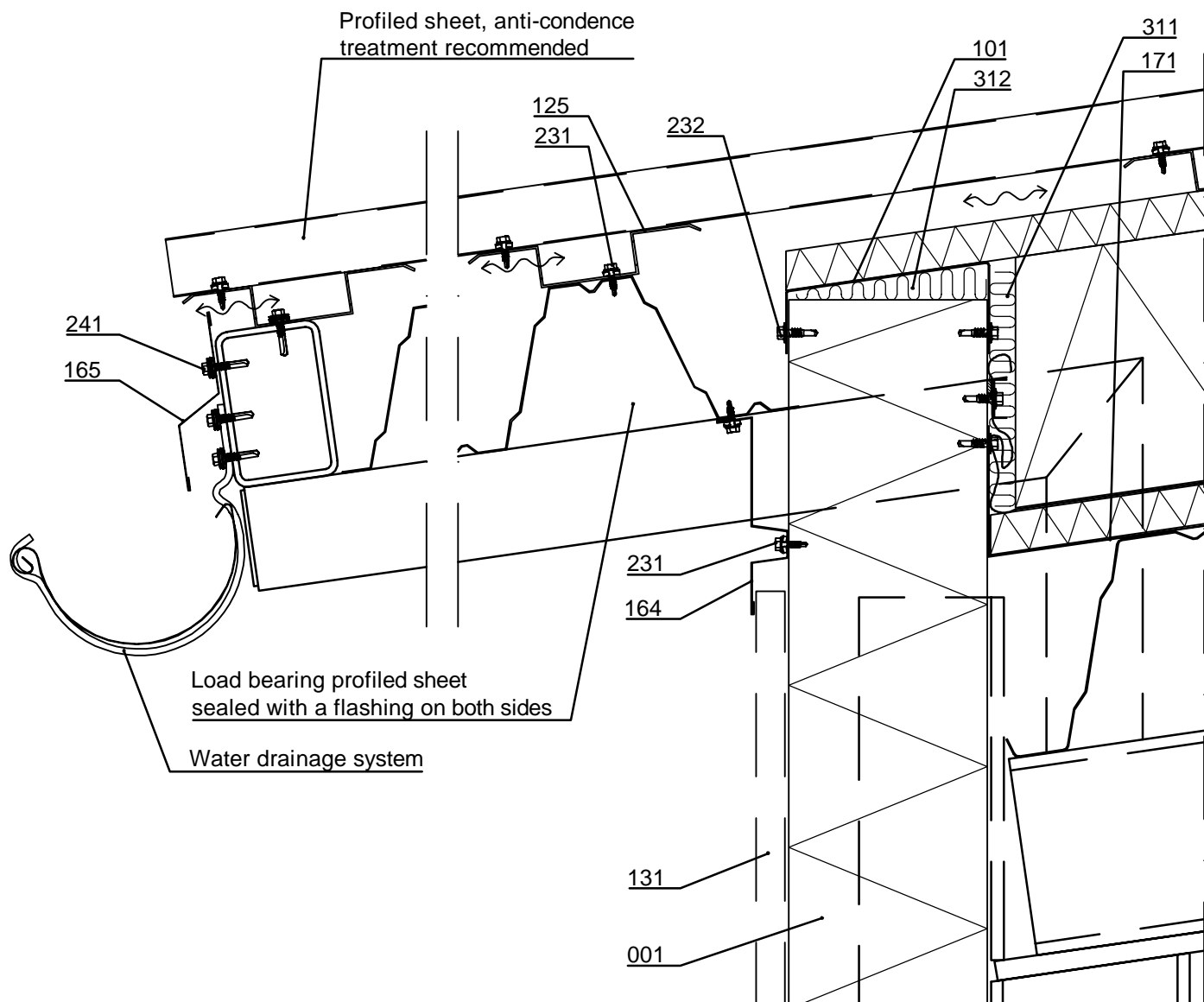
Ventilation grooves

- ☐ 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. Mineral wool
- ☐ 325. Ruukki sealant mastic during installation to outer male groove full length of panel and inner female groove 60 mm in length of panel

☒ Ruukki's delivery

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

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



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

☒ Ruukki's delivery

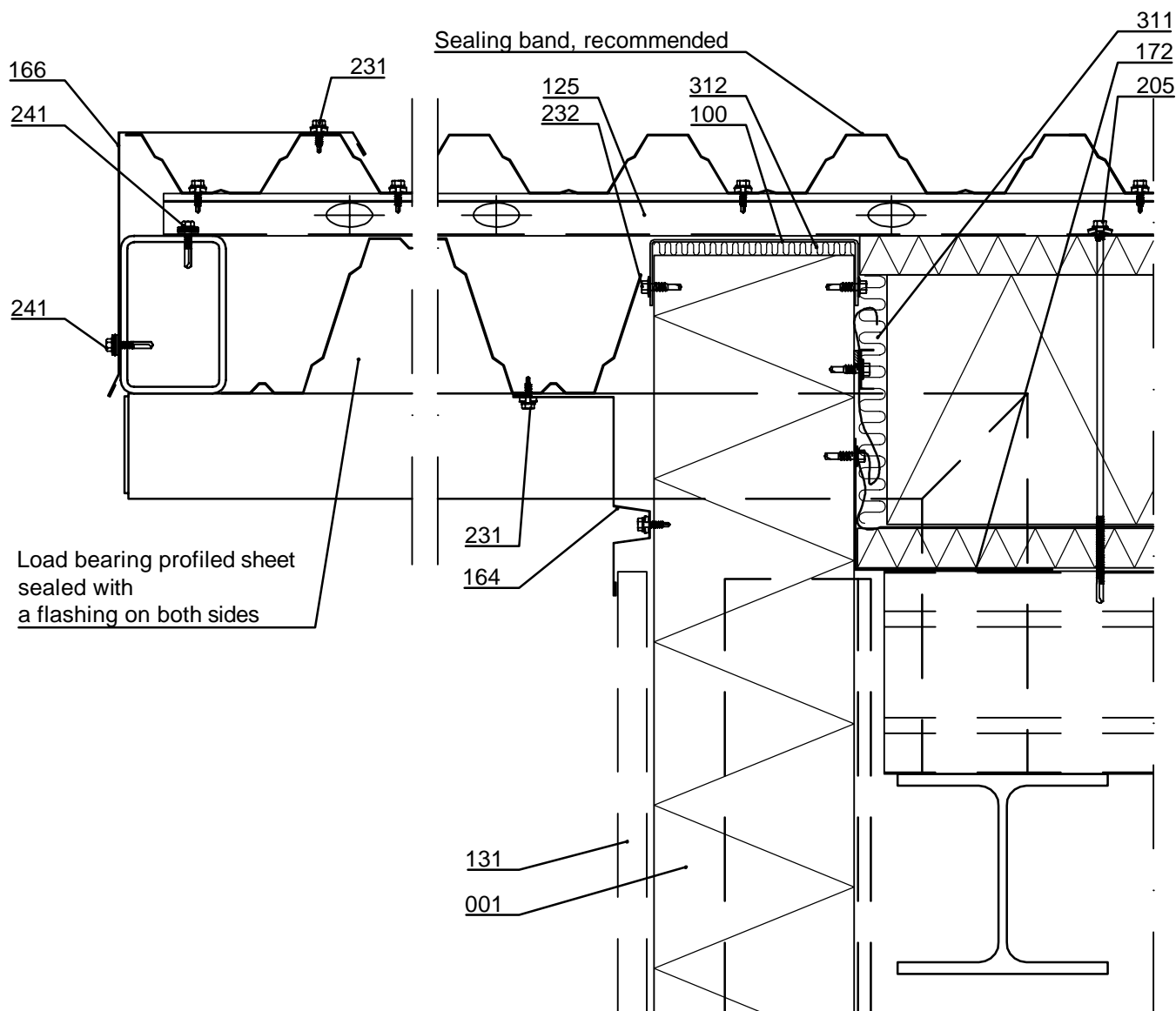
Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

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

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

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



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

☒ Ruukki's delivery

Insulation thickness is dimensioned according to project.

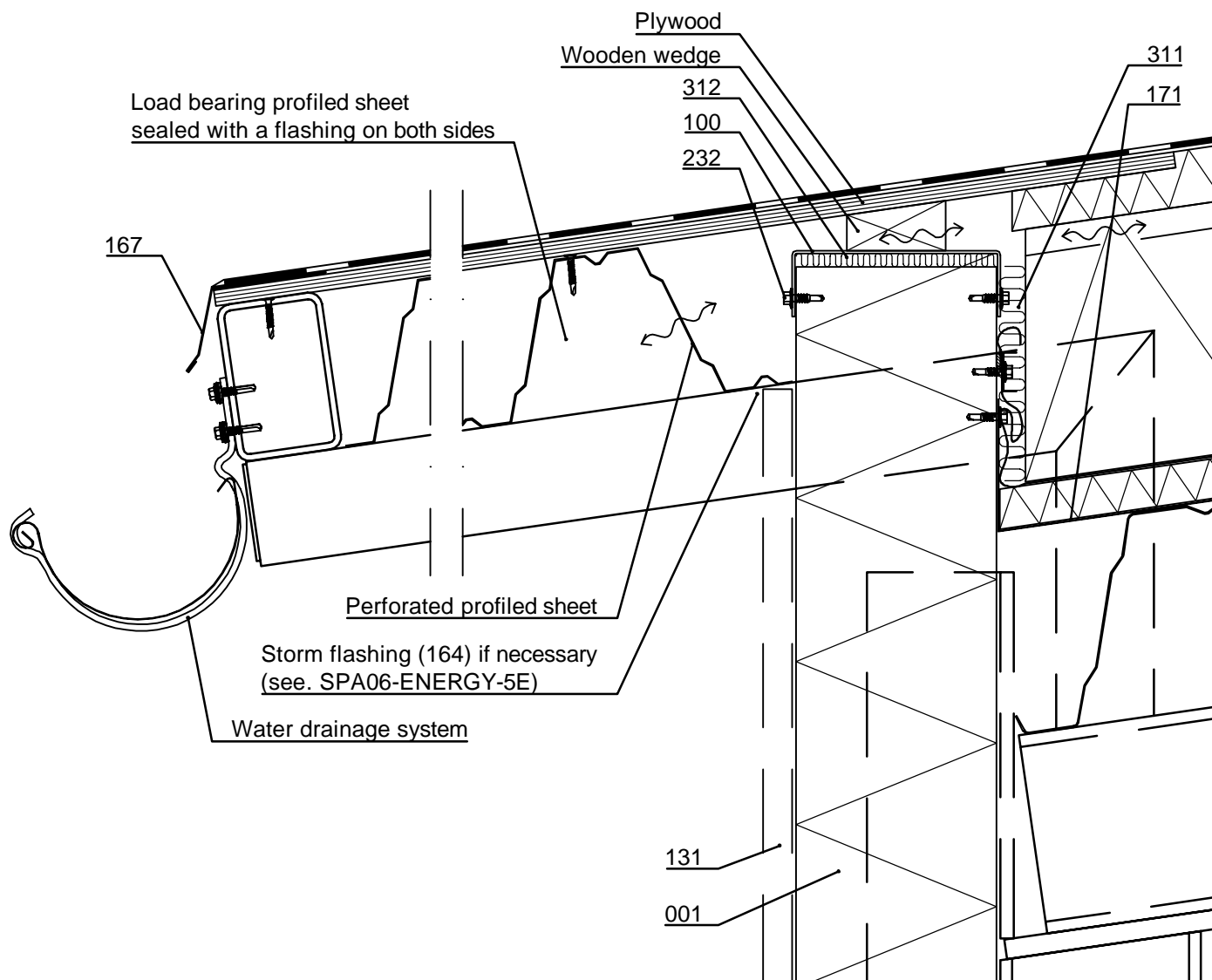
Supports and fastening of profiled sheet according to structural designer.

Panels 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<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA06-ENERGY-7E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
| Scale<br>1:5       | Building  |          | File nr.                          |



Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

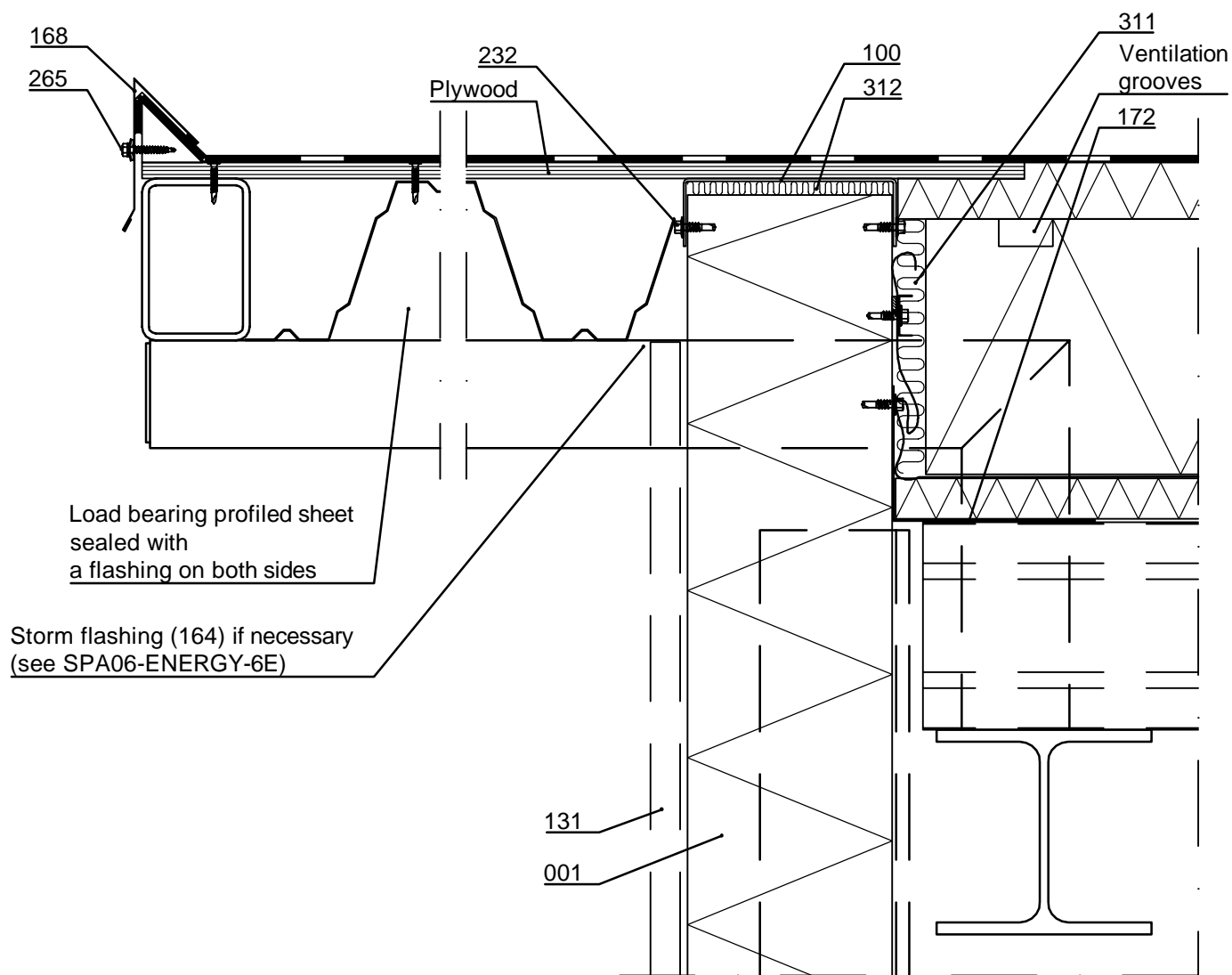
Panels is cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

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. Mineral wool
- ☐ 312. /EAWS\_\_\_/ Mineral wool

☒ Ruukki's delivery

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



Insulation thickness is dimensioned according to project.

Supports and fastening of profiled sheet according to structural designer.

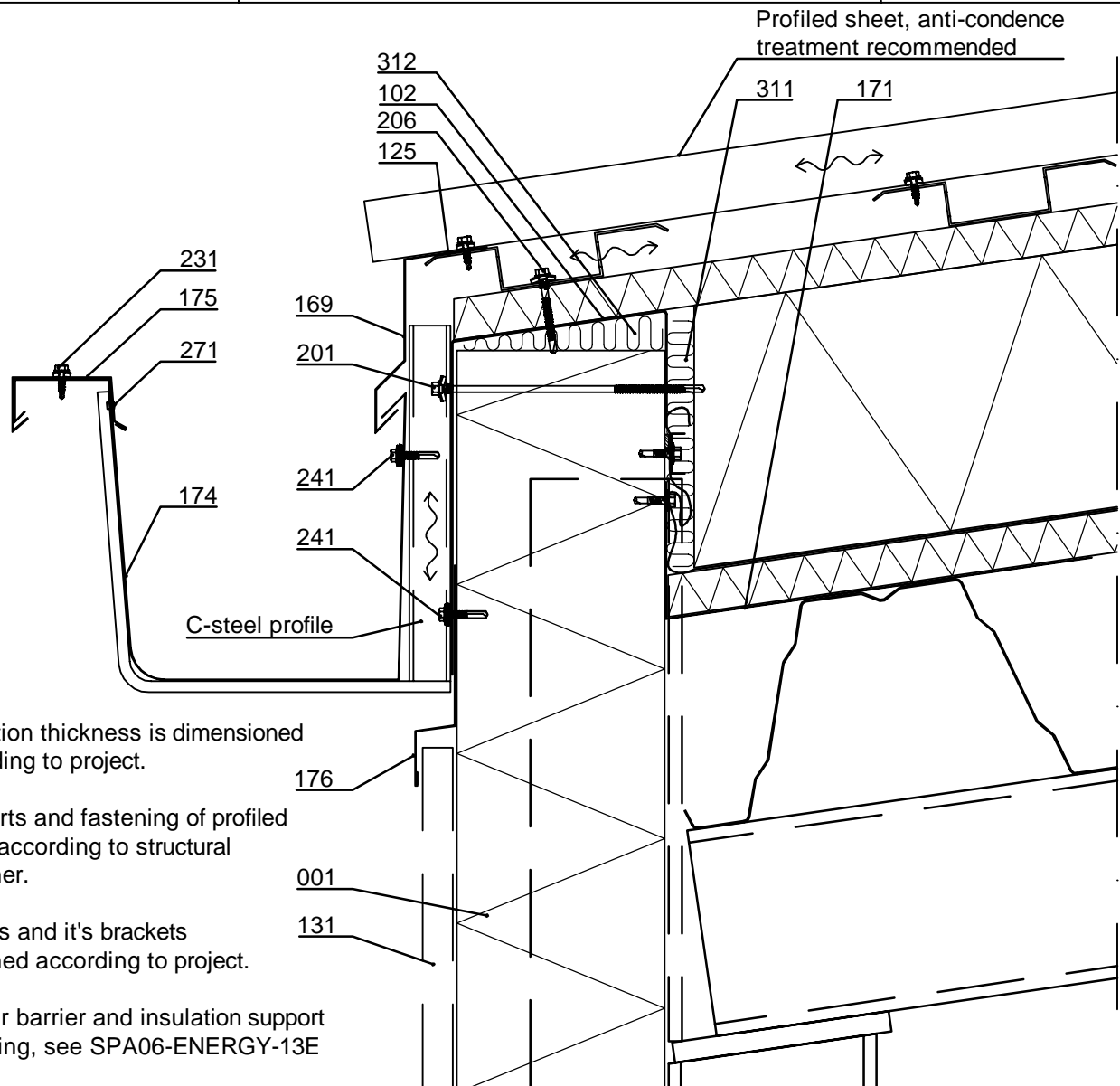
Panels is cut at the point where it intersects with the steel structure. Vapour barrier is taped around the steel.

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. Mineral wool
- ☐ 312. /EAWS\_\_\_/ Mineral wool

☒ Ruukki's delivery

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



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

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

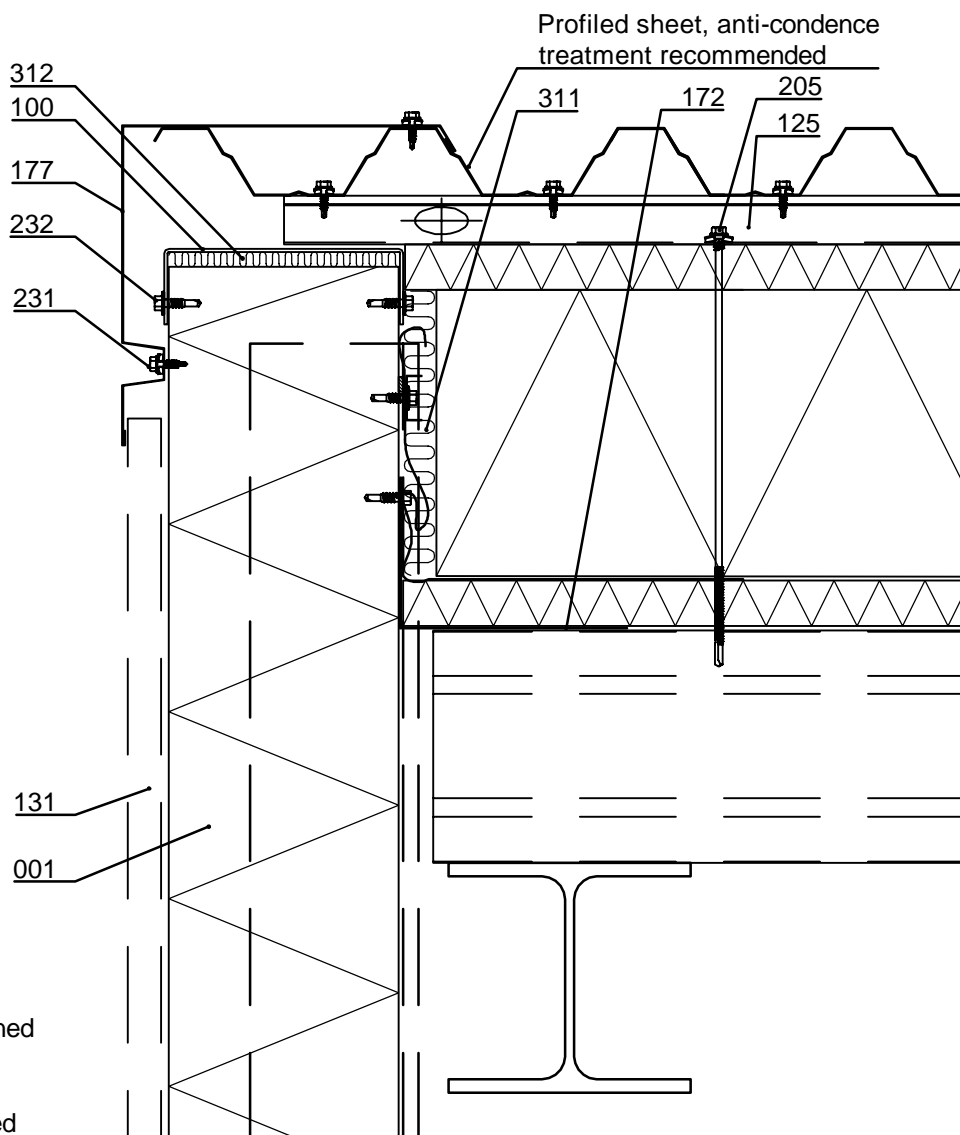
☒ Ruukki's delivery



Contents of drawing

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

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



Insulation thickness is dimensioned according to project.

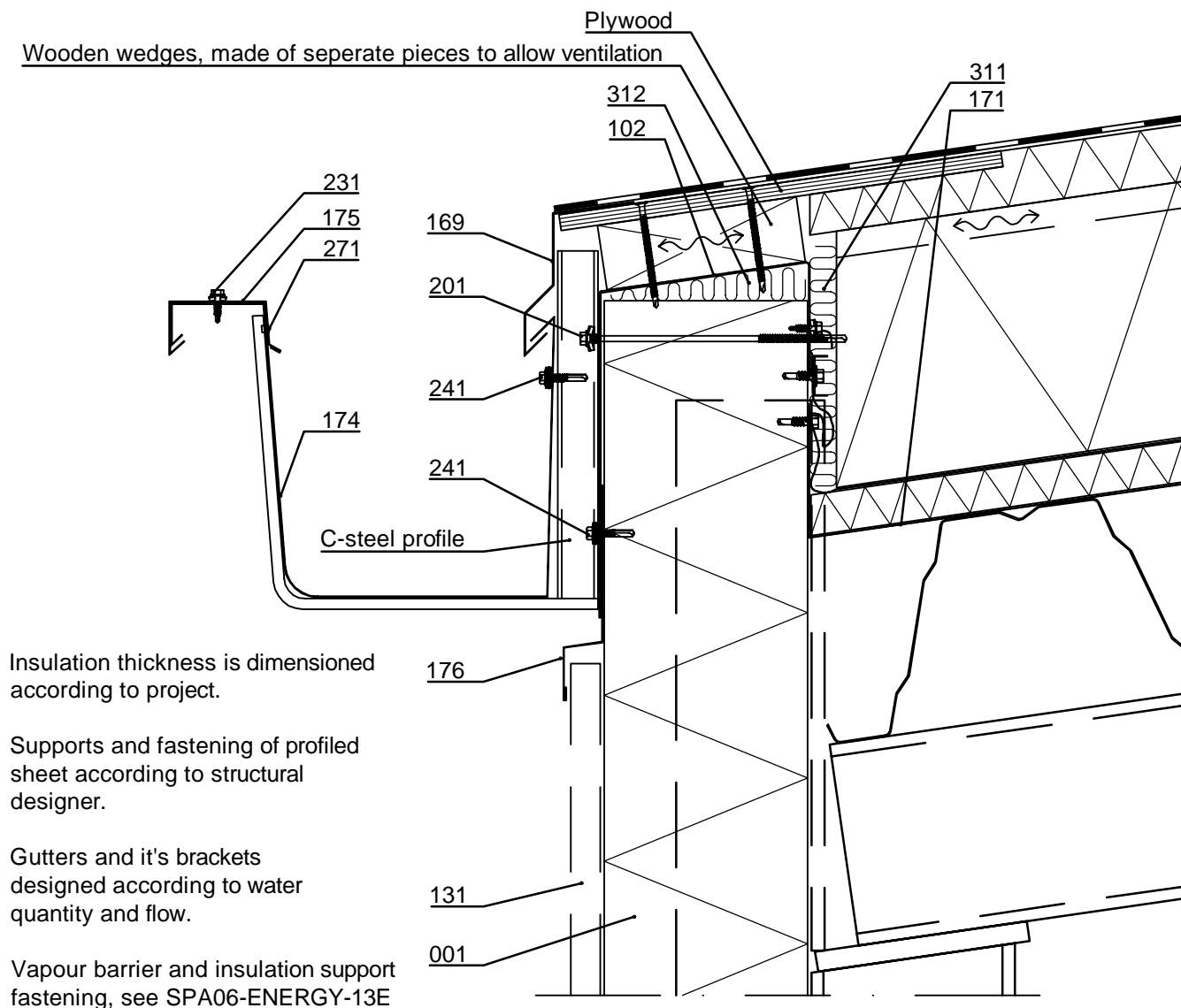
Supports and fastening of profiled sheet according to structural designer.

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. Mineral wool  |
| <input type="checkbox"/> 172. Insulation support flashing, t = 0.6 mm         | <input type="checkbox"/> 312. /EAWS___/ Mineral wool                                |
| <input type="checkbox"/> 177. Eave flashing, t = 0.6 mm, according to project |   |
| <input checked="" type="checkbox"/> Ruukki's delivery                         |   |

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

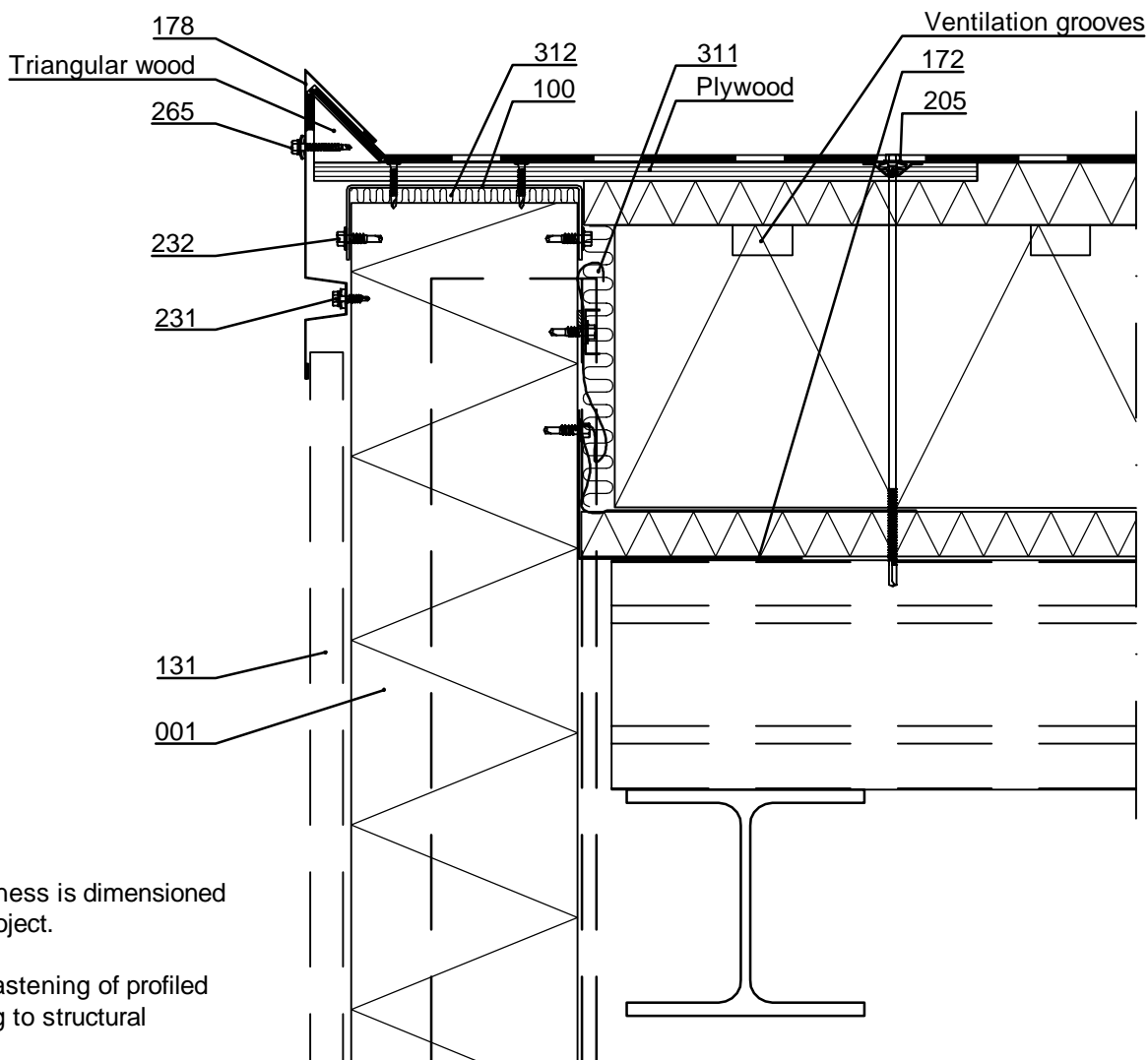


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 102. Eave purlin, according to project
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 169. Eave flashing, t = 0.6 mm, according to project
- ☐ 171. Insulation support flashing, t = 0.6 mm, according to project
- ☐ 174. Gutter, t = 0.6 mm, according to project
- ☐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

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

☒ Ruukki's delivery

|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA06-ENERGY-12E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                    |
| Scale<br>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
- ☐ 100. /EA1EPF\_\_\_/ Purlin
- ☐ 131. /EA1JV1/ Vertical joint flashing
- ☐ 172. Insulation support flashing, t = 0.6 mm
- ☐ 178. Eave flashing, t = 0.6 mm, according to project
- ☐ 205. Self-drilling element screw / fastener screw for roof
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 232. Flashing fastener, without washer
- ☐ 265. Fastener screw to wood, washer with sealing
- ☐ 311. Mineral wool
- ☐ 312. /EAWS\_\_\_/ Mineral wool

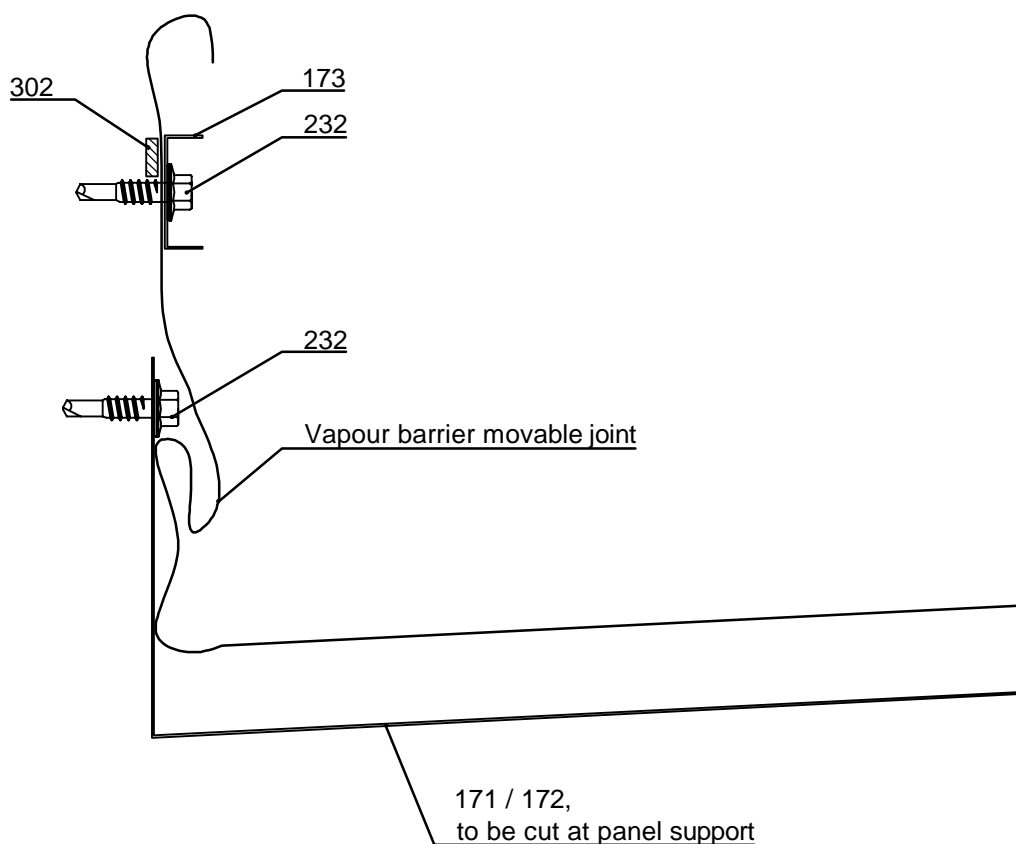
☒ Ruukki's delivery



## Contents of drawing

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

|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA06-ENERGY-13E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                    |
| Scale<br>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

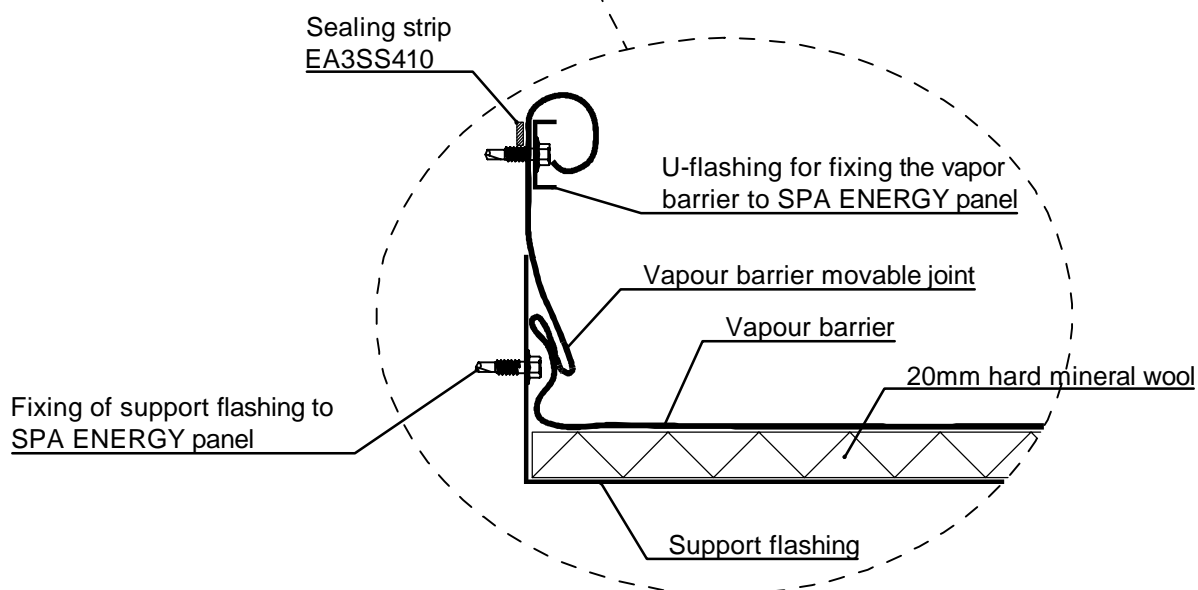
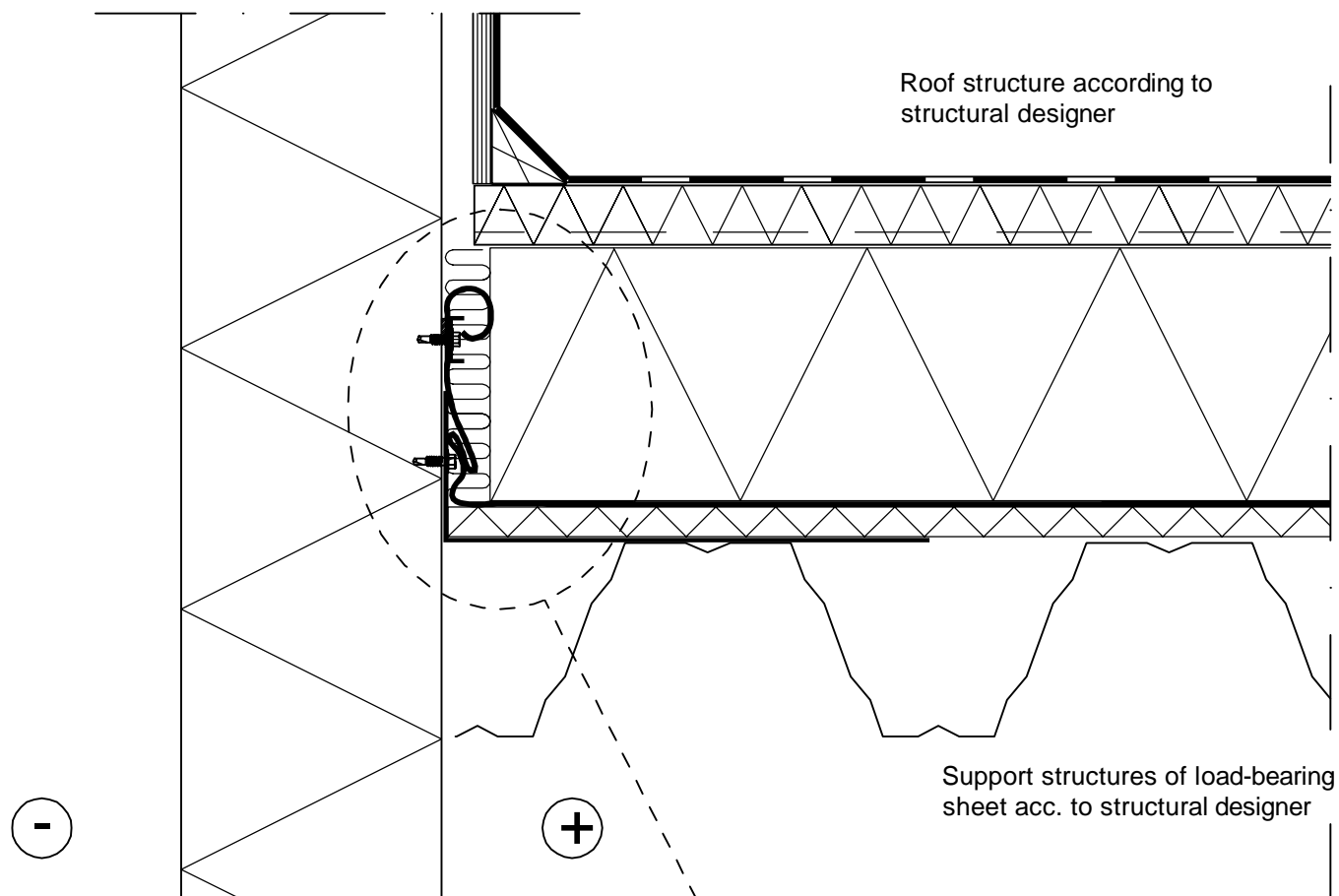
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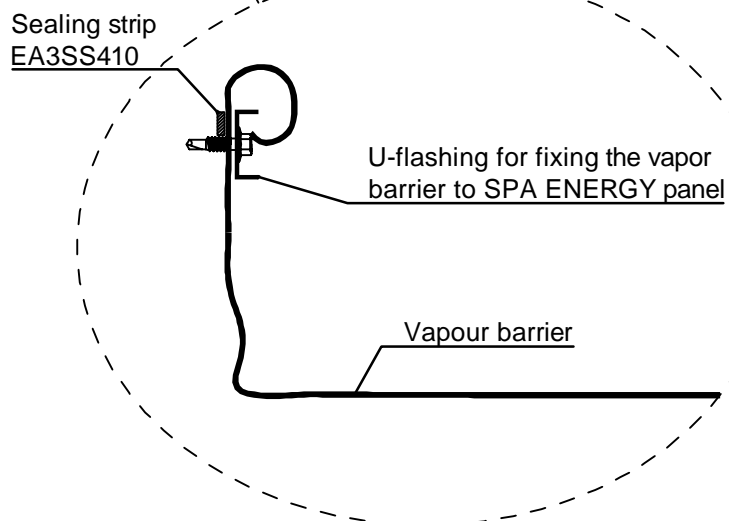
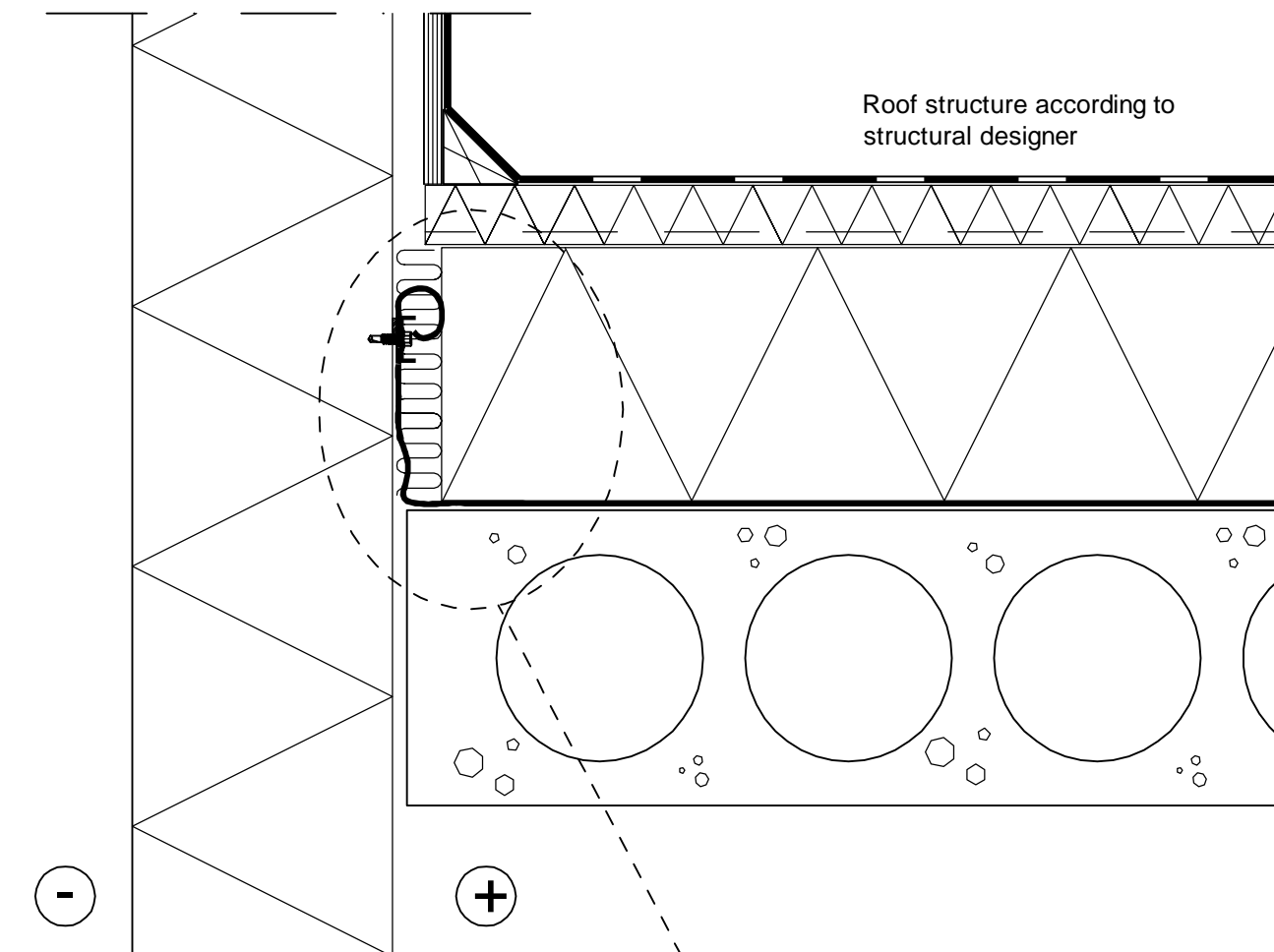
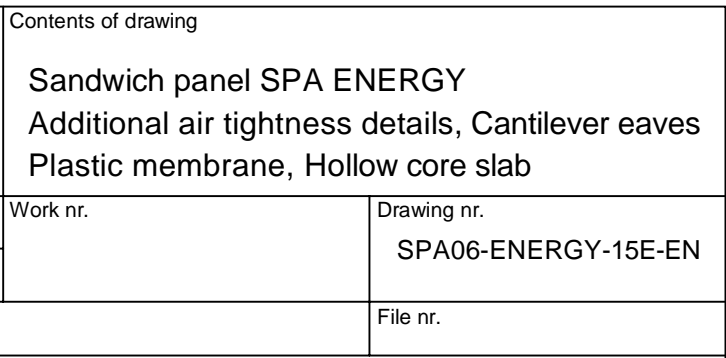
Contents of drawing

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

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





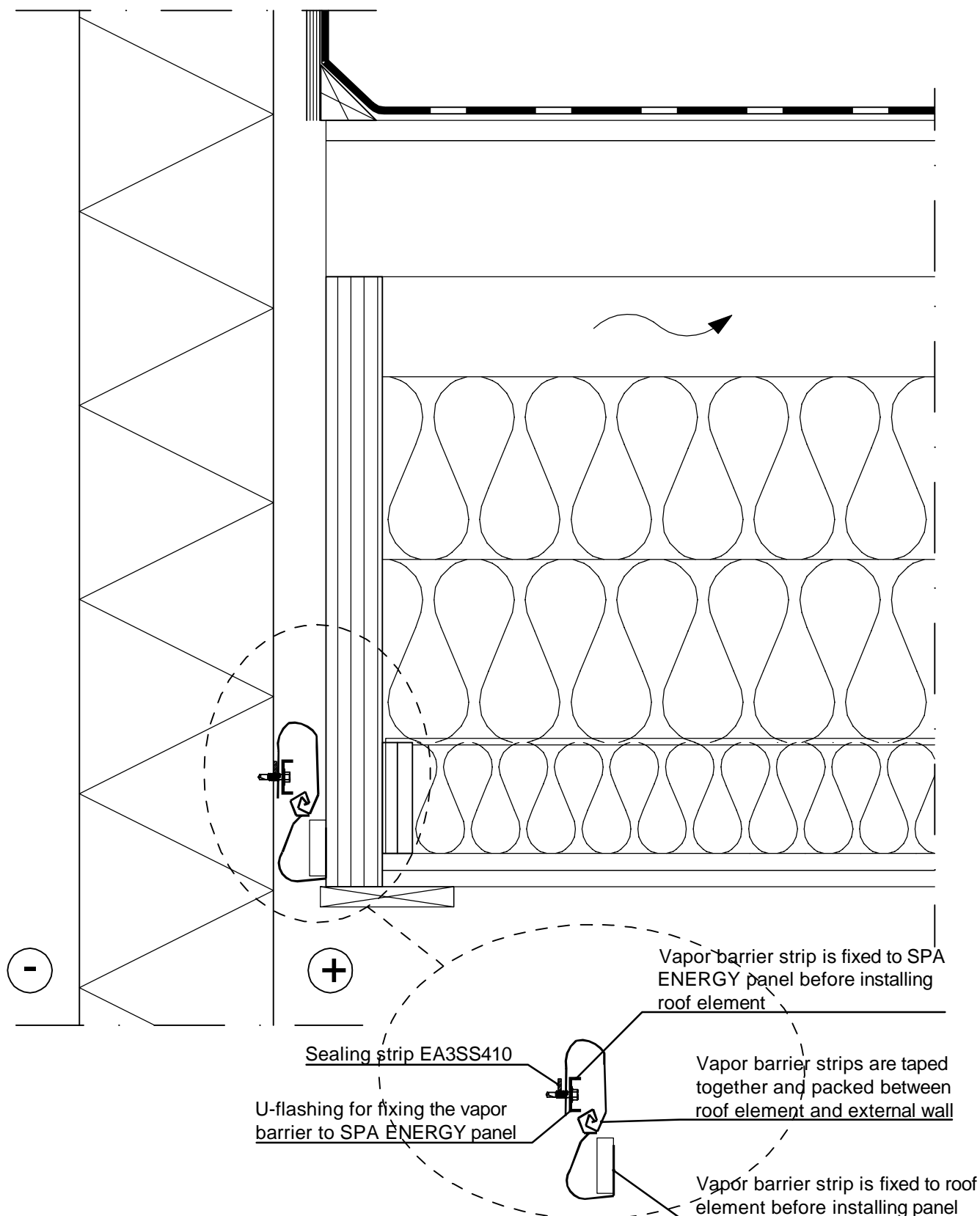




Contents of drawing

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

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

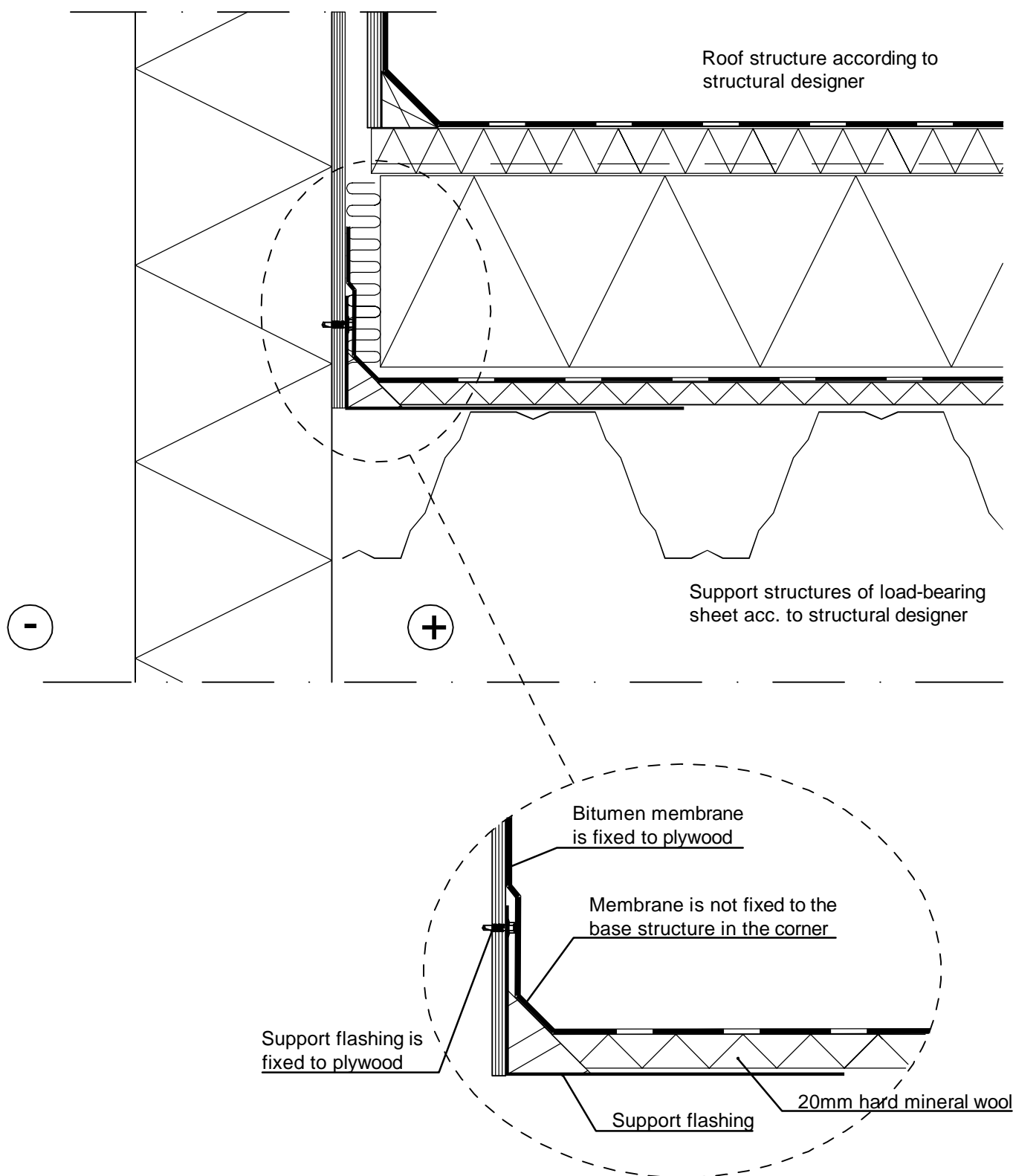




Contents of drawing

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

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

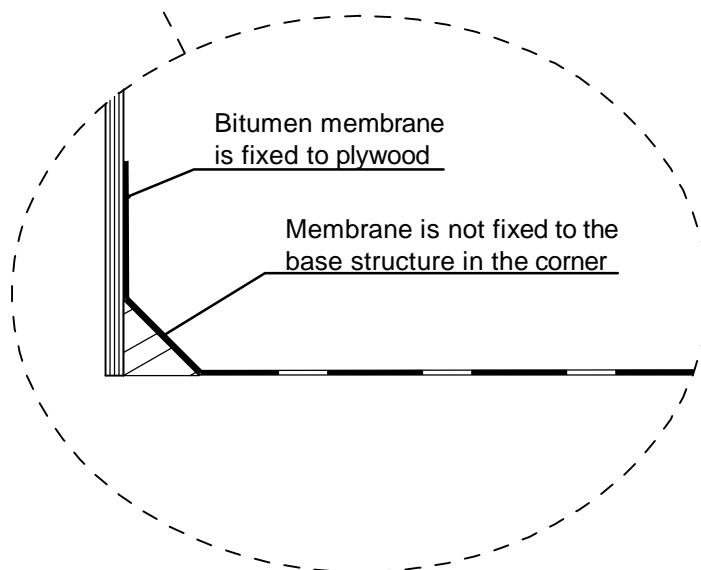
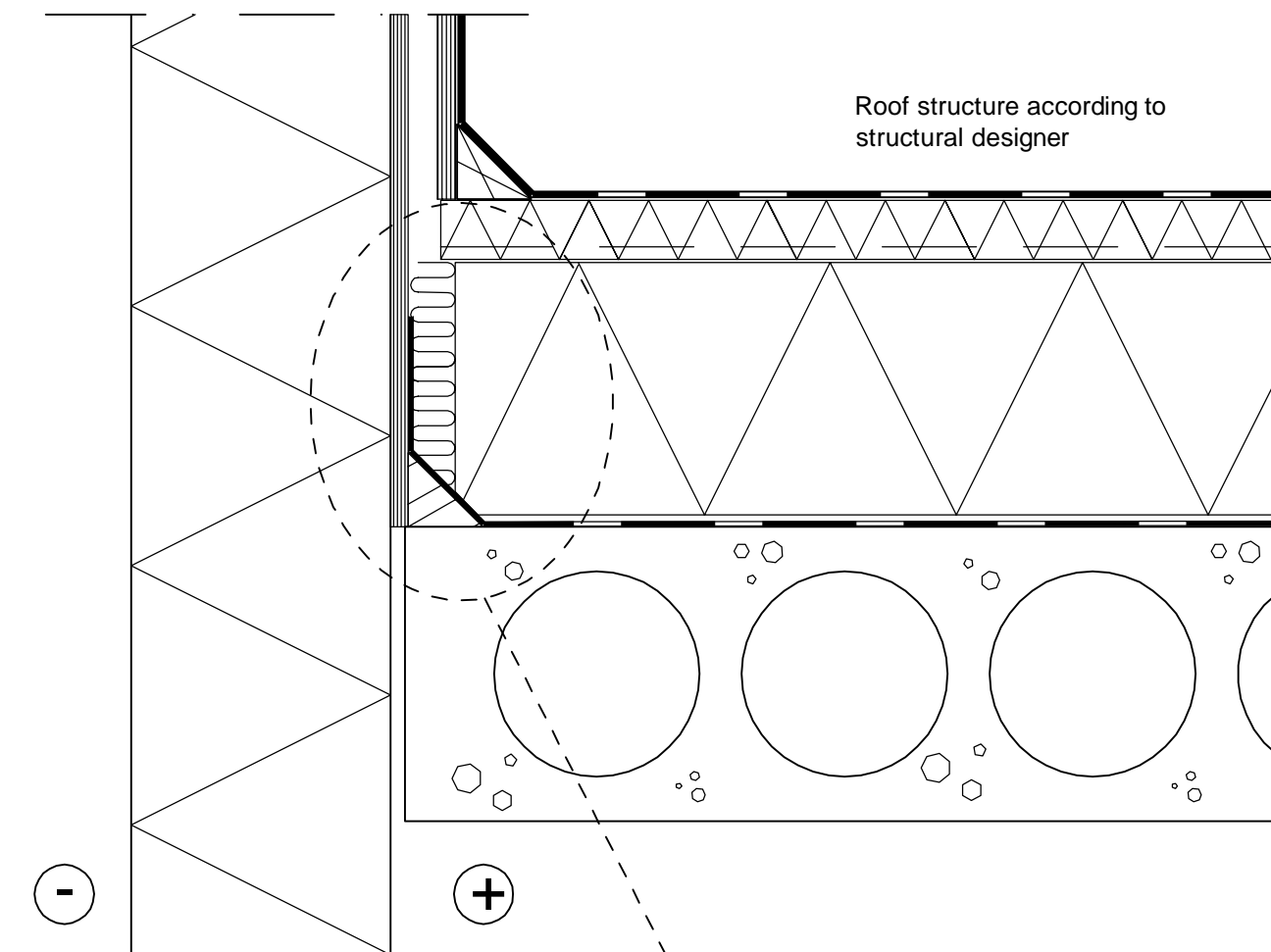




Contents of drawing

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

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

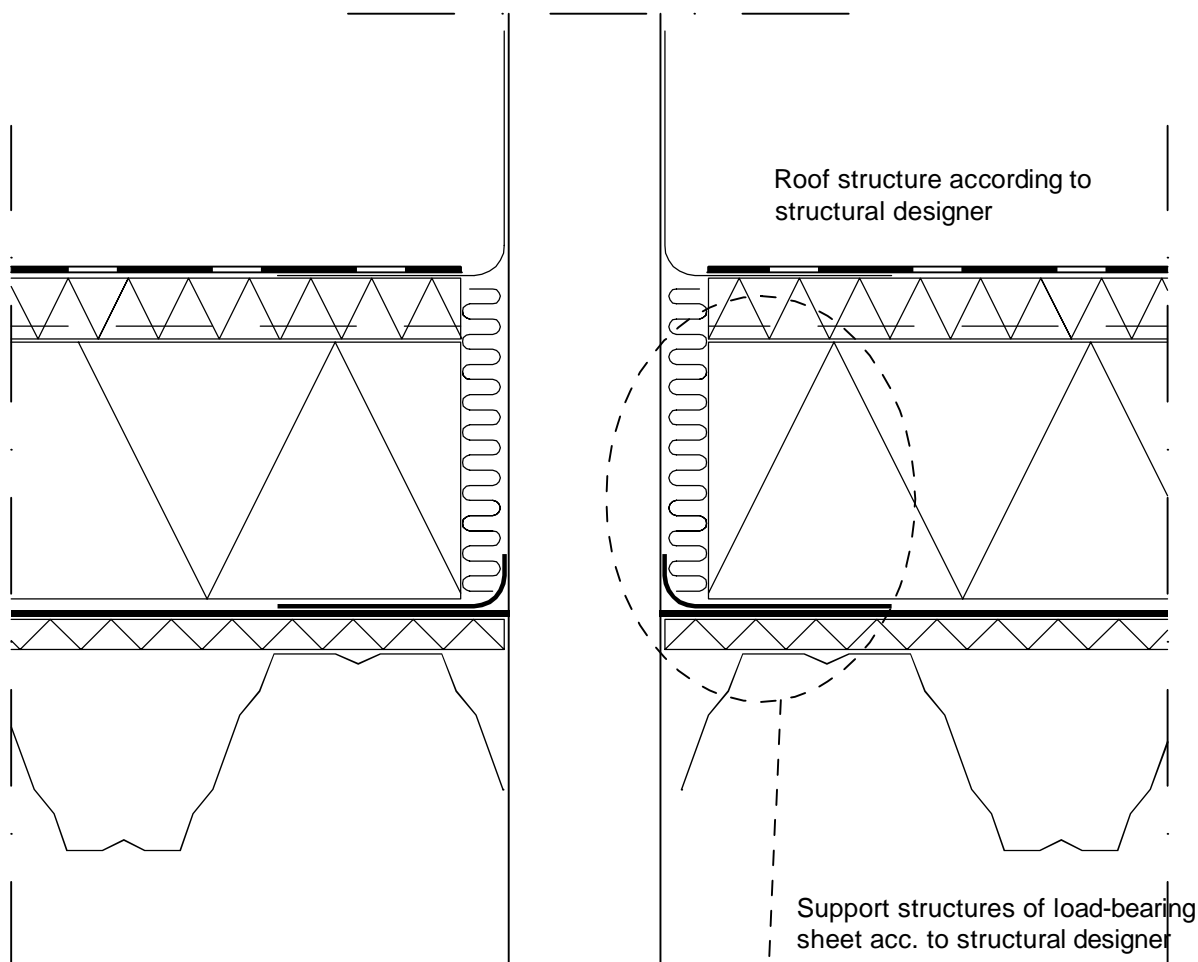




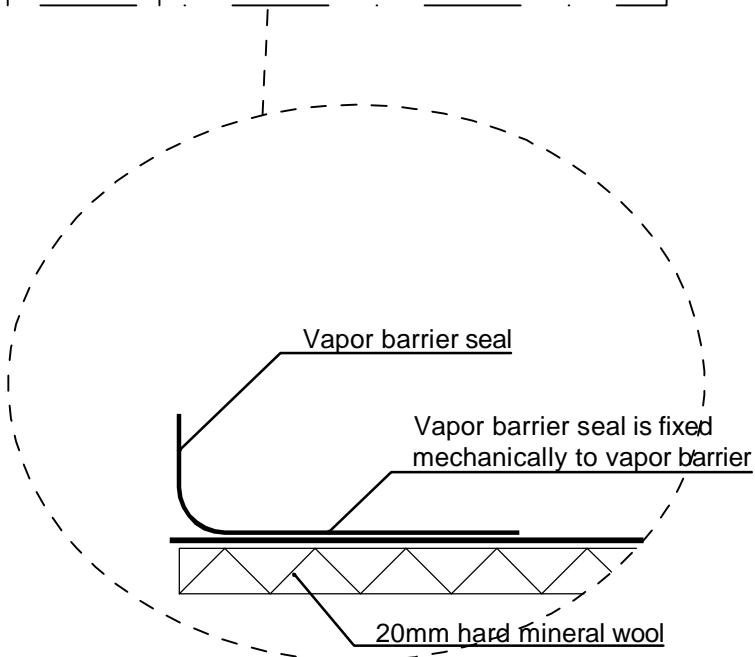
Contents of drawing

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

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



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

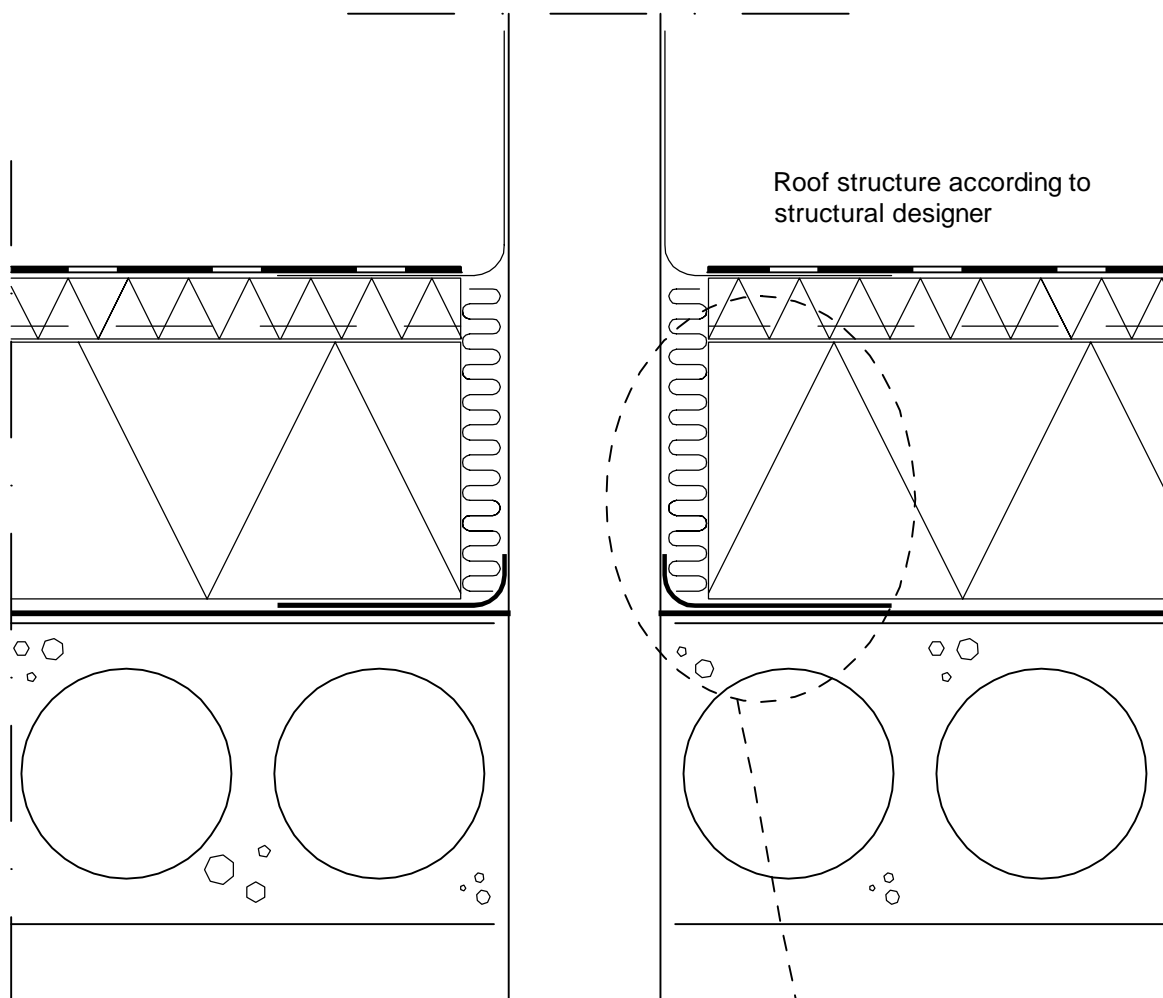




Contents of drawing

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

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



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

Vapor barrier seal

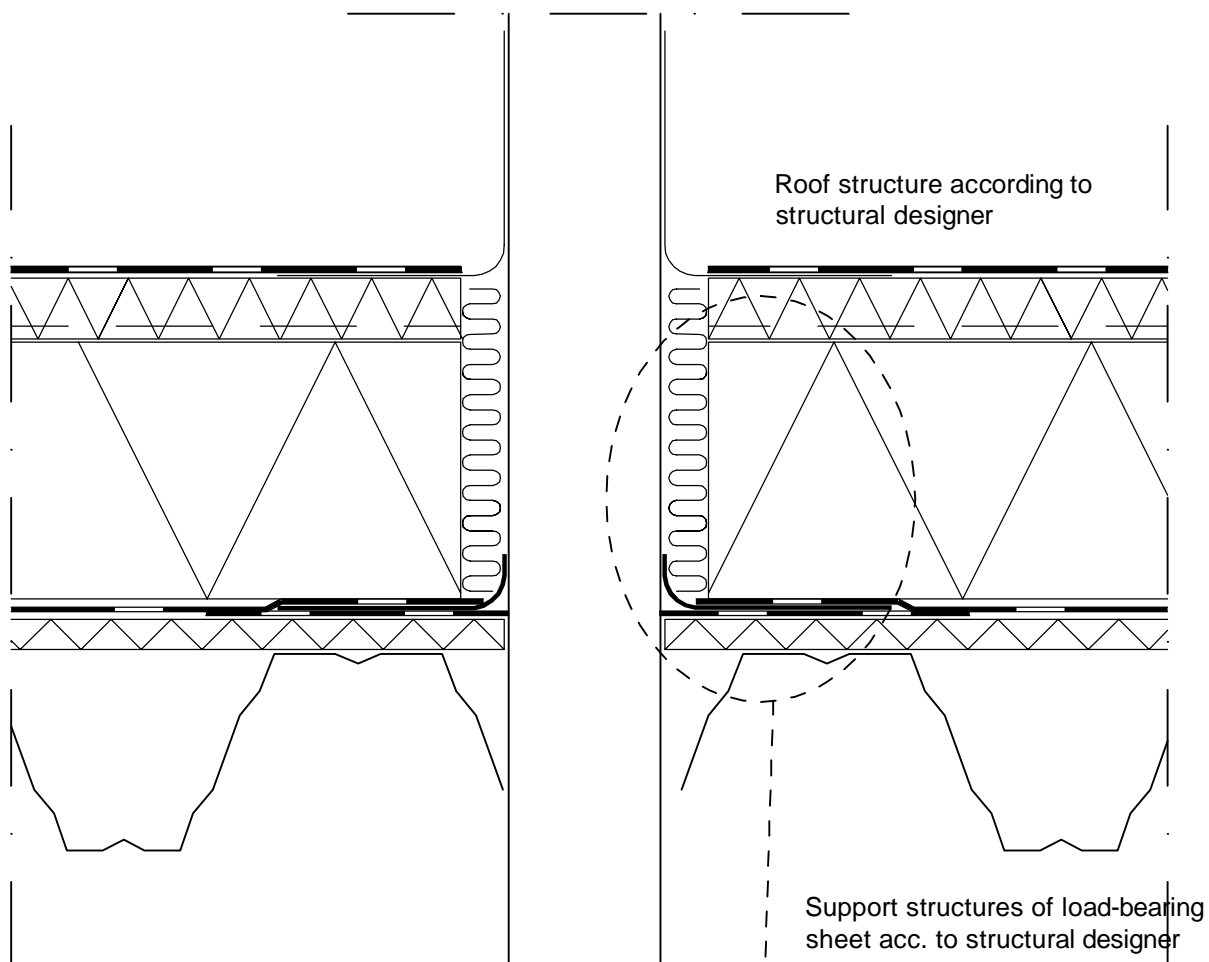
Vapor barrier seal is fixed  
mechanically to vapor barrier



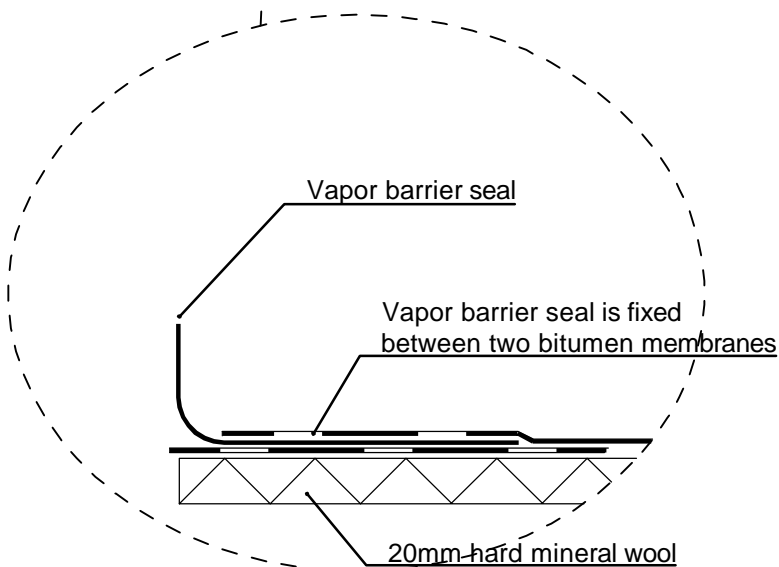
# Contents of drawing

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

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



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

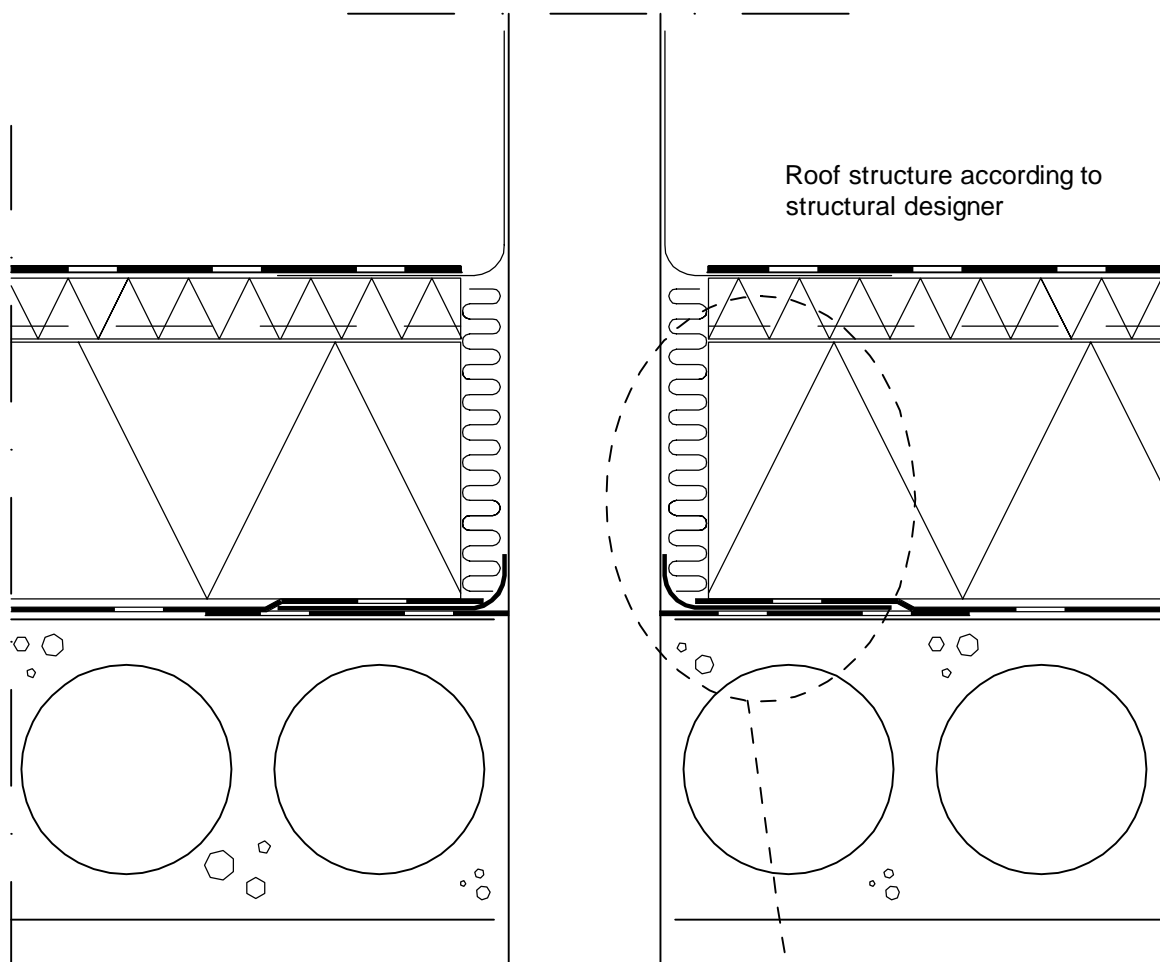




# Contents of drawing

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

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



Roof structure according to  
structural designer

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

Vapor barrier seal

Vapor barrier seal is fixed  
between two bitumen membranes

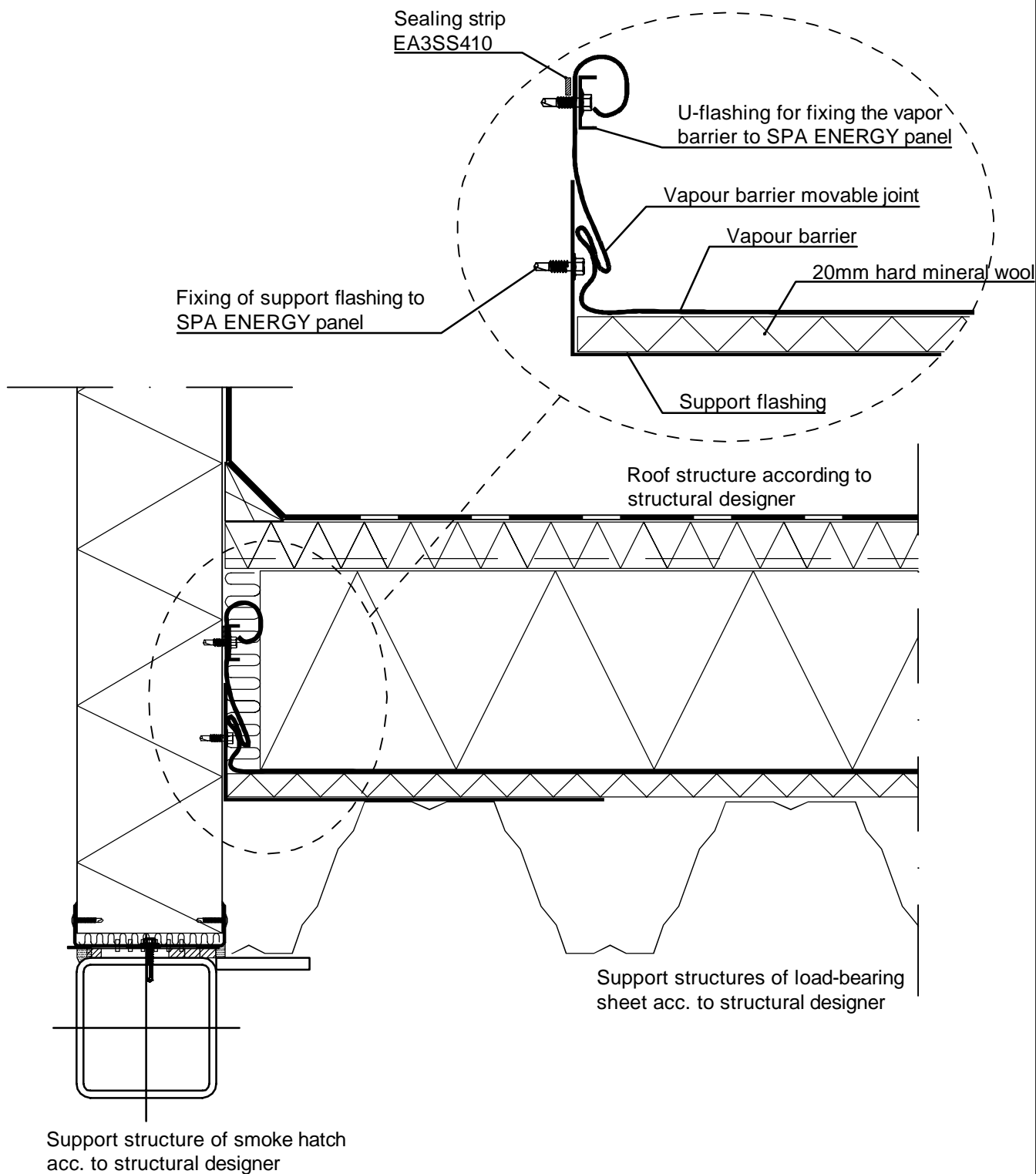




Contents of drawing

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

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

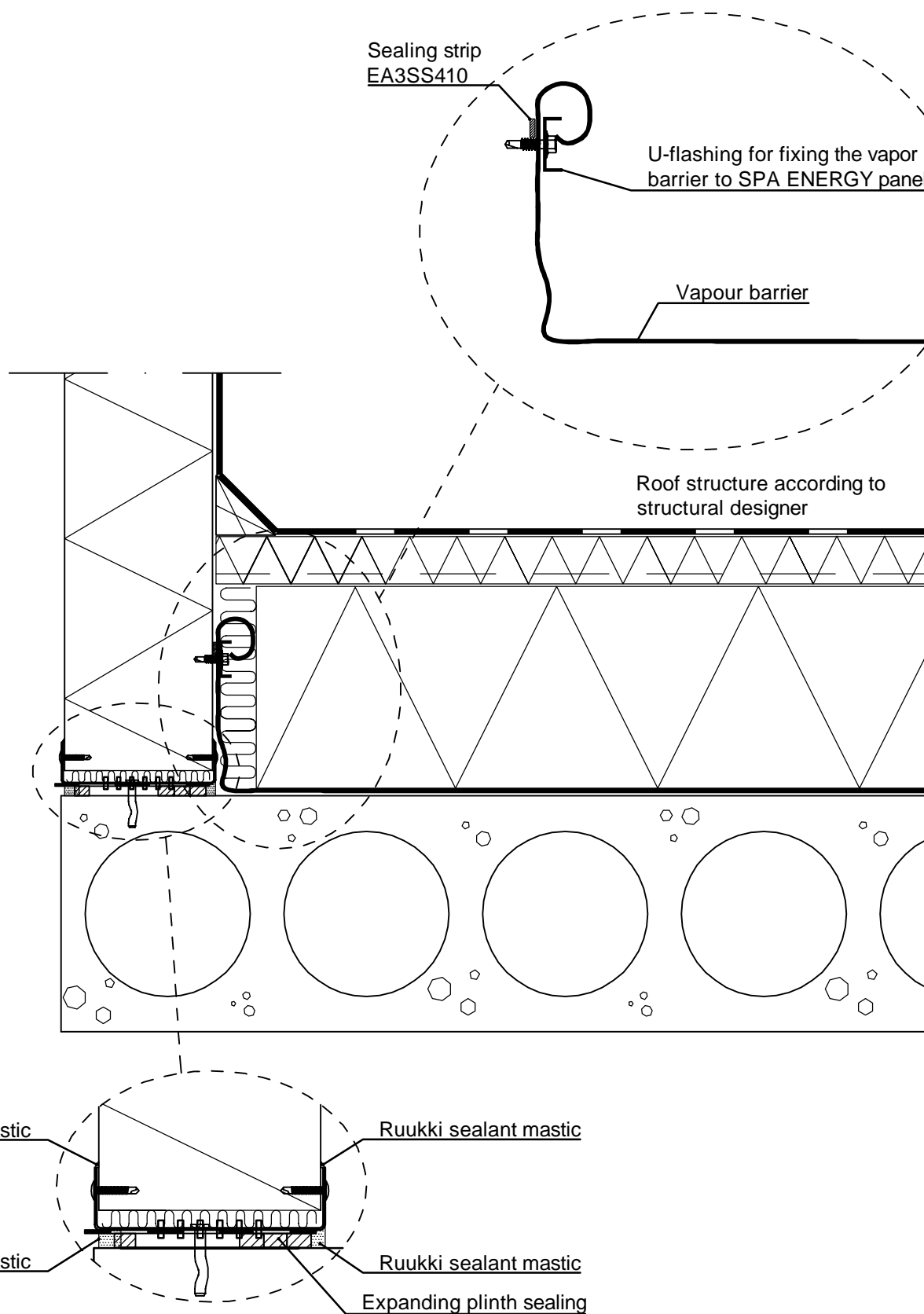




Contents of drawing

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

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

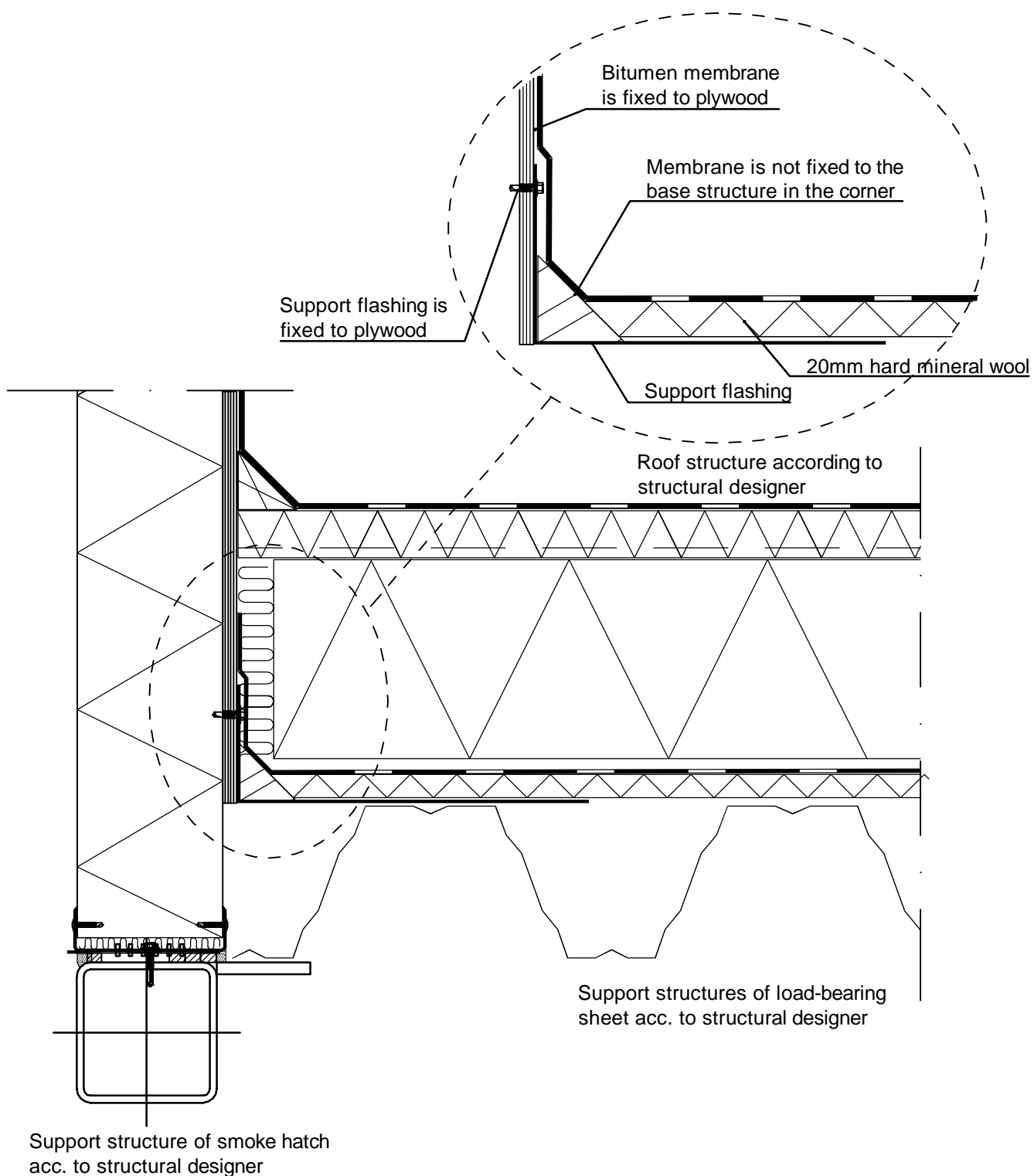




Contents of drawing

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

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

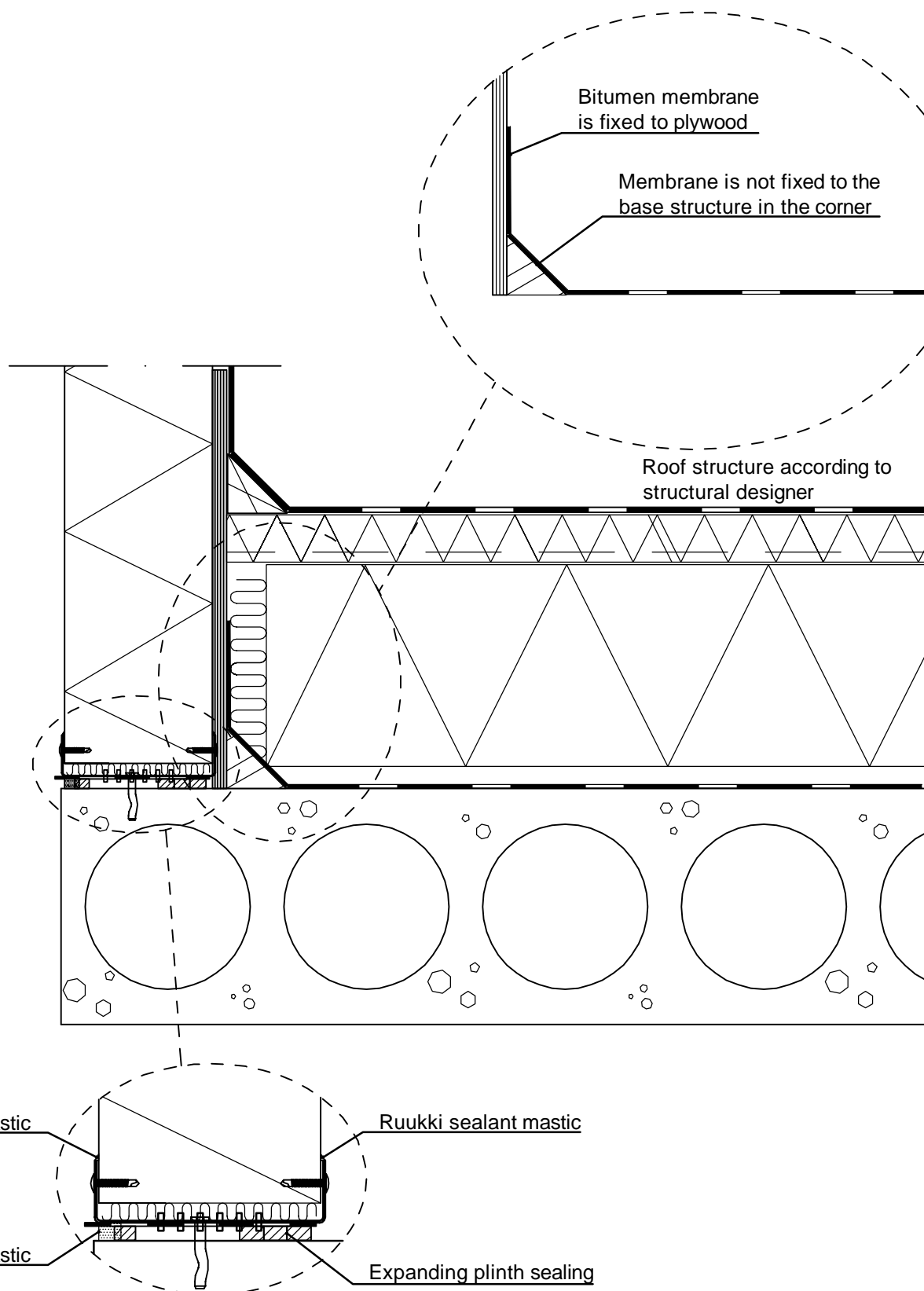




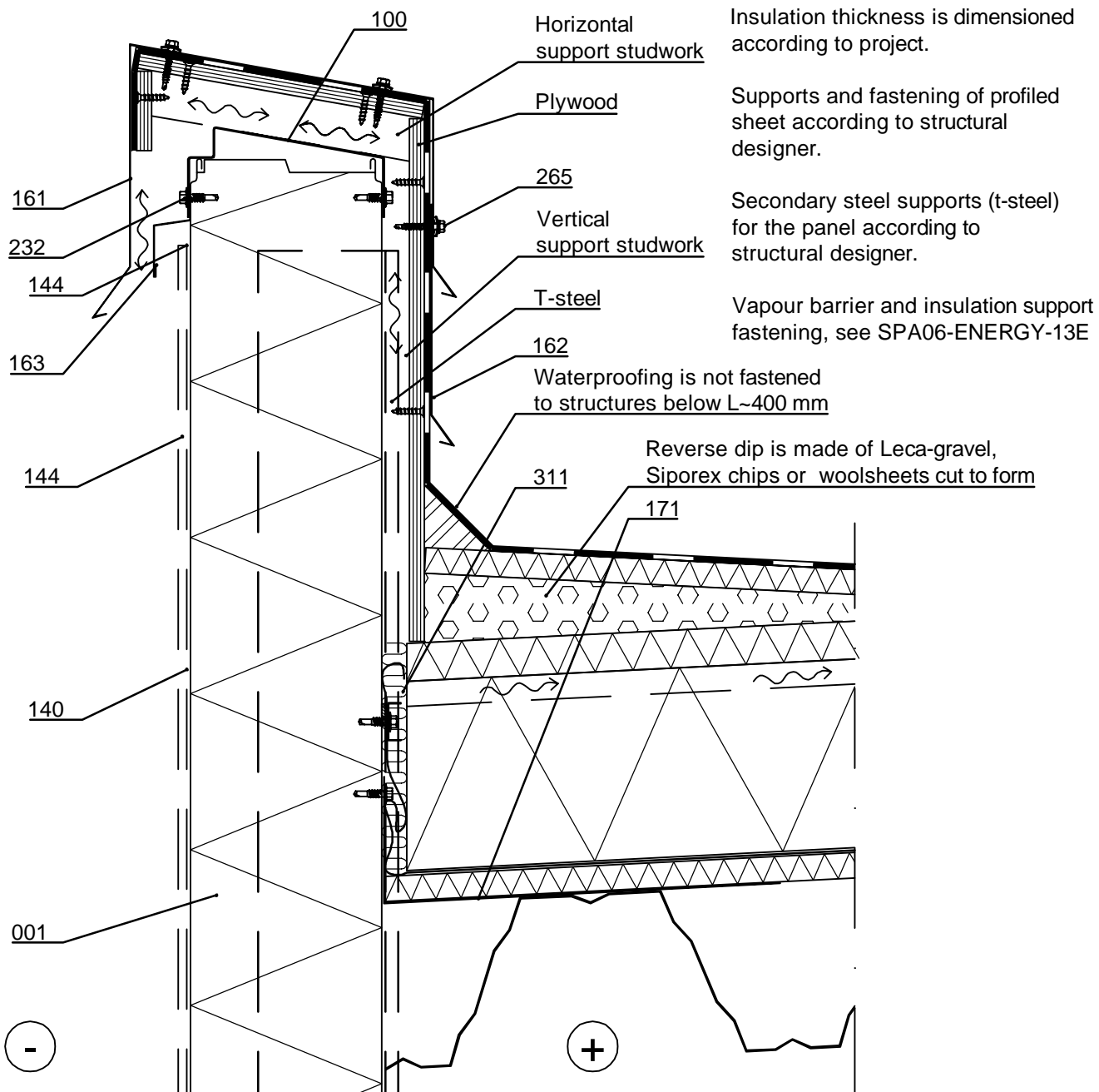
Contents of drawing

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

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



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

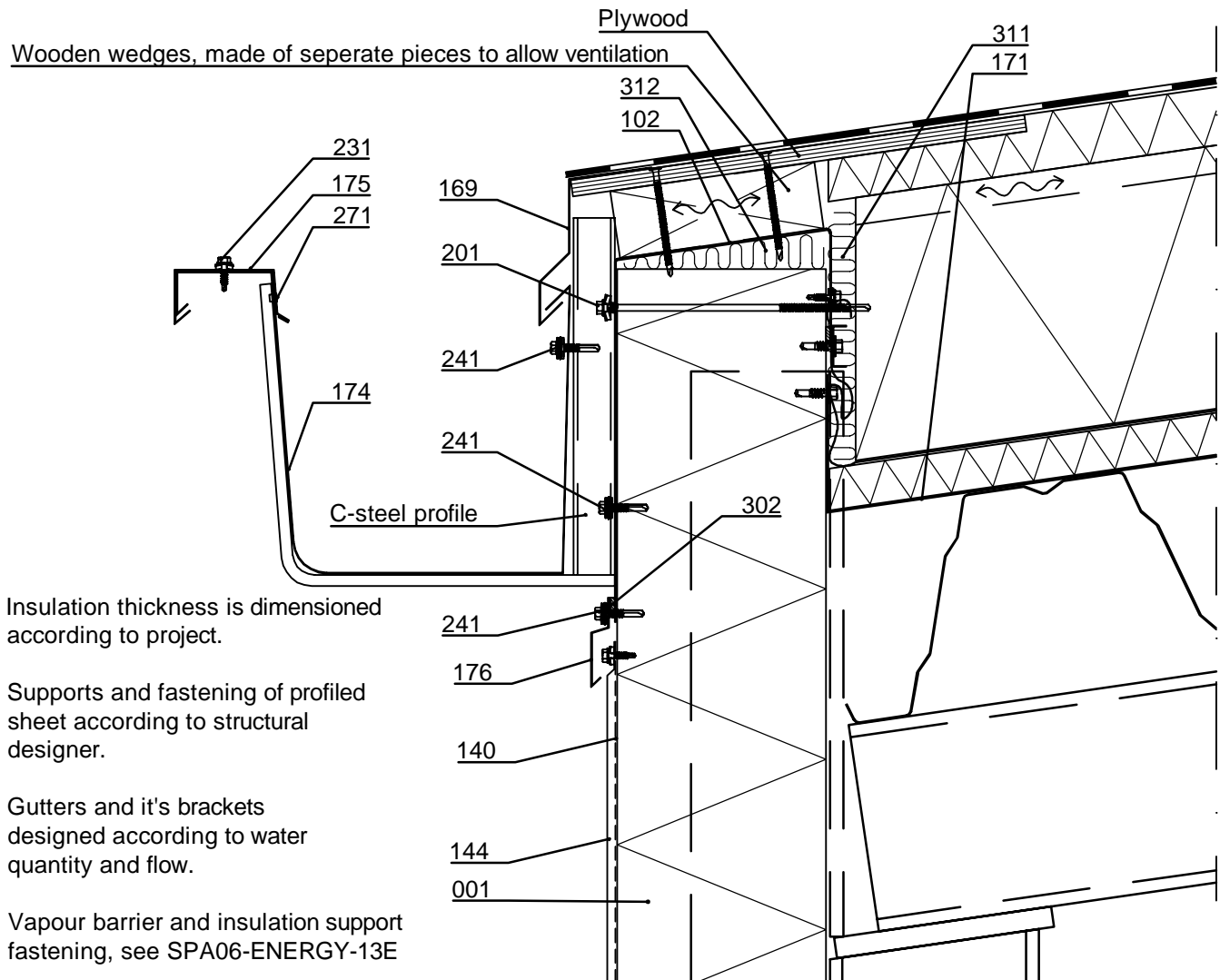


- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1EPF\_\_\_/ Purlin
- ☐ 140. /EA1JVB4/ Vertical bottom flashing Invisible
- ☐ 144. /EA1JVI/ Vertical joint flashing Invisible
- ☐ 161. Eave flashing, t = 0.6 mm, according to project
- ☐ 162. Cover flashing, t = 0.6 mm, according to project
- ☐ 163. Storm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

- ☐ 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<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA06-ENERGY-31E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                    |
| Scale<br>1:5       | Building  |          | File nr.                           |

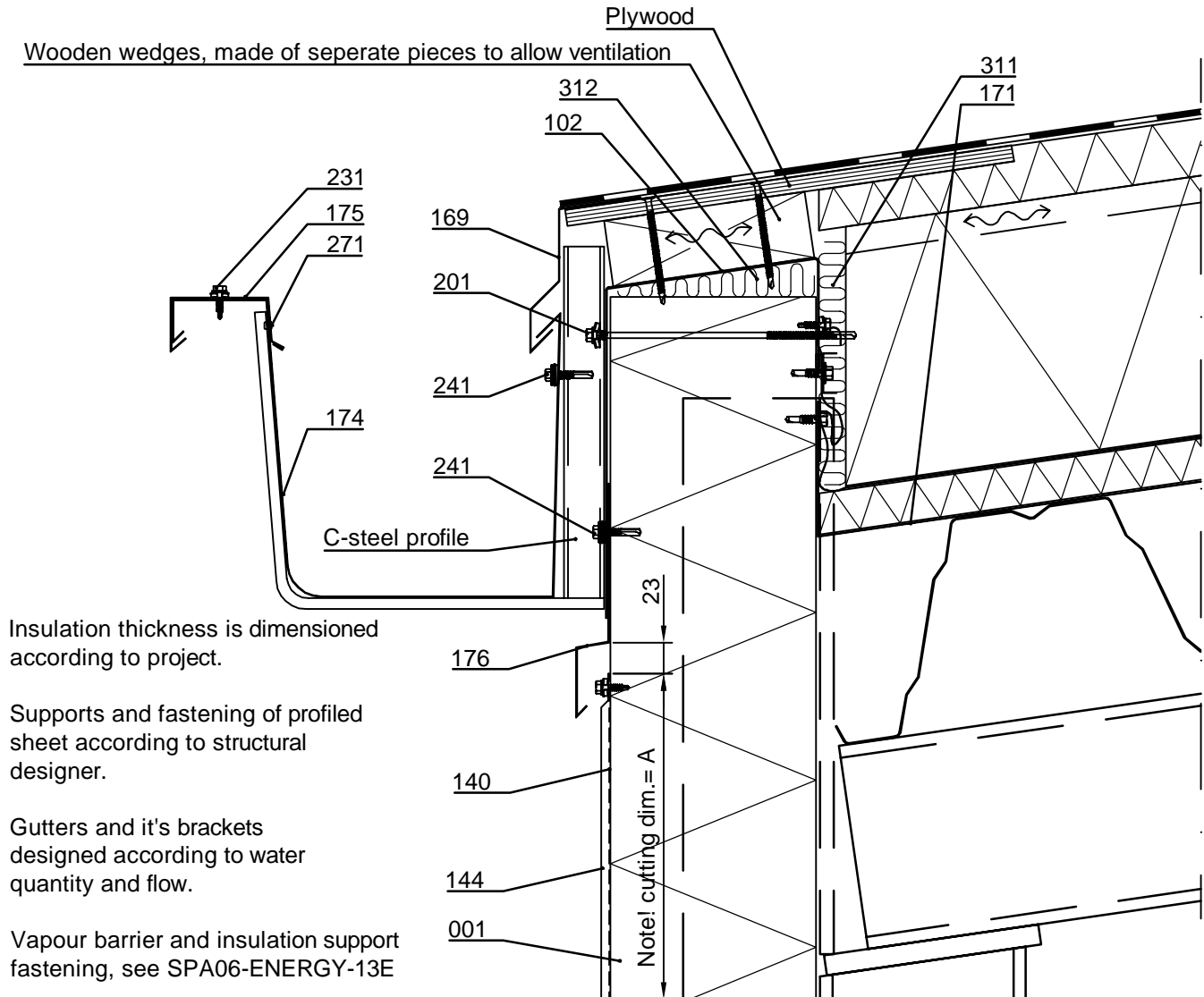


NOTE! If lists 140 and 144 are needed to shorten, then the bottom strip 140 is cut from the upper edge 180mm shorter than the shortened vertical seam strip 144. List 144 is cut from the bottom edge (A) and the cut edge is sanded flat. Vertical seam list 144 installed from the bottom up.

- |   |  |
|---|--|
| <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. /EA1JVI/ 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                           |

☒ Ruukki's delivery

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



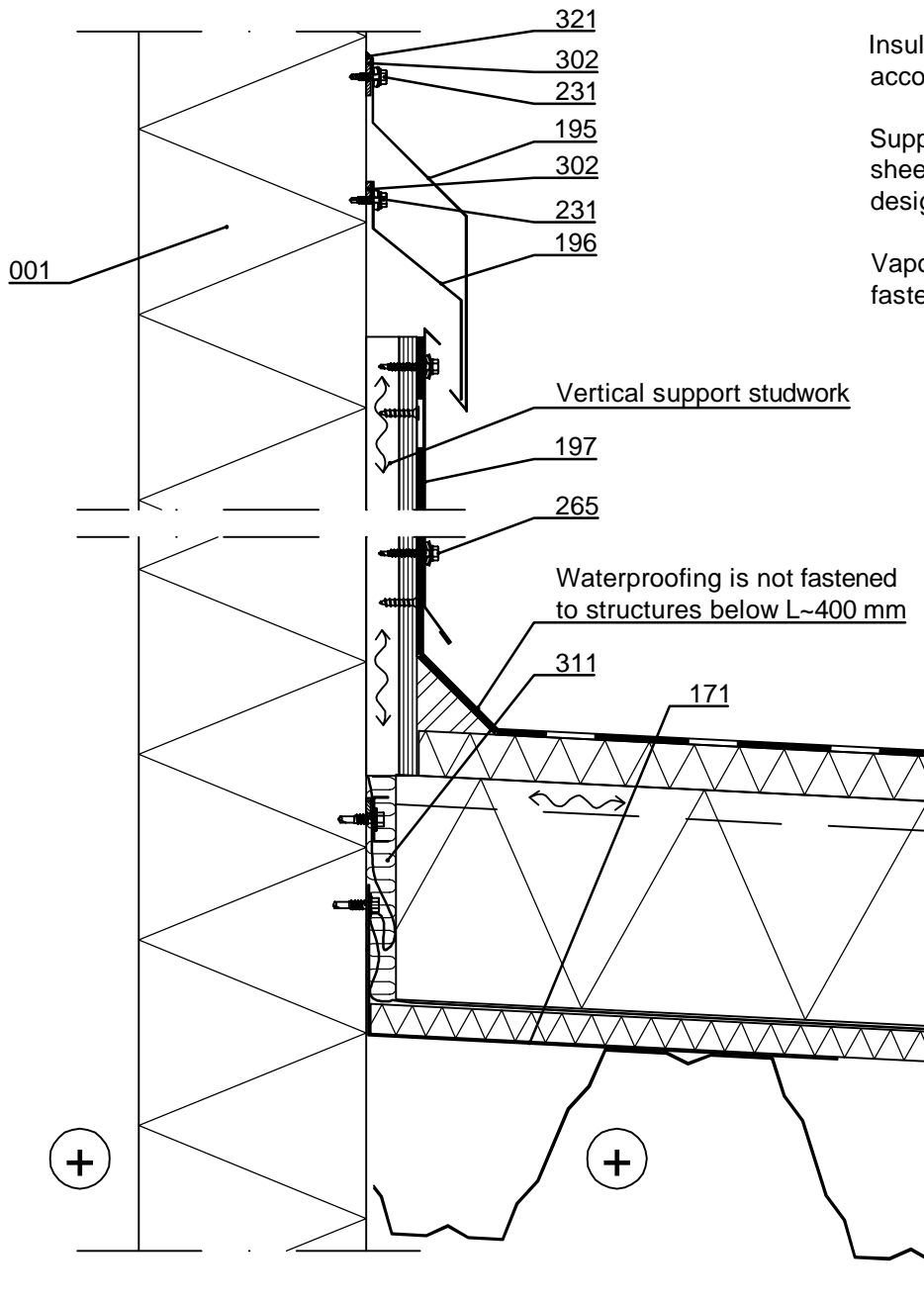
NOTE! If lists 140 and 144 are needed to shorten, then the bottom strip 140 is cut from the upper edge 180mm shorter than the shortened vertical seam strip 144. List 144 is cut from the bottom edge (A) and the cut edge is sanded flat. Vertical seam list 144 installed from the bottom up.

- |   |  |
|---|--|
| <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. /EA1JVI/ 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                           |

☒ Ruukki's delivery

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

|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA07-ENERGY-1E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                   |
| Scale<br>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. Mineral wool
- ☐ 321. Ruukki sealant mastic

☒ Ruukki's delivery

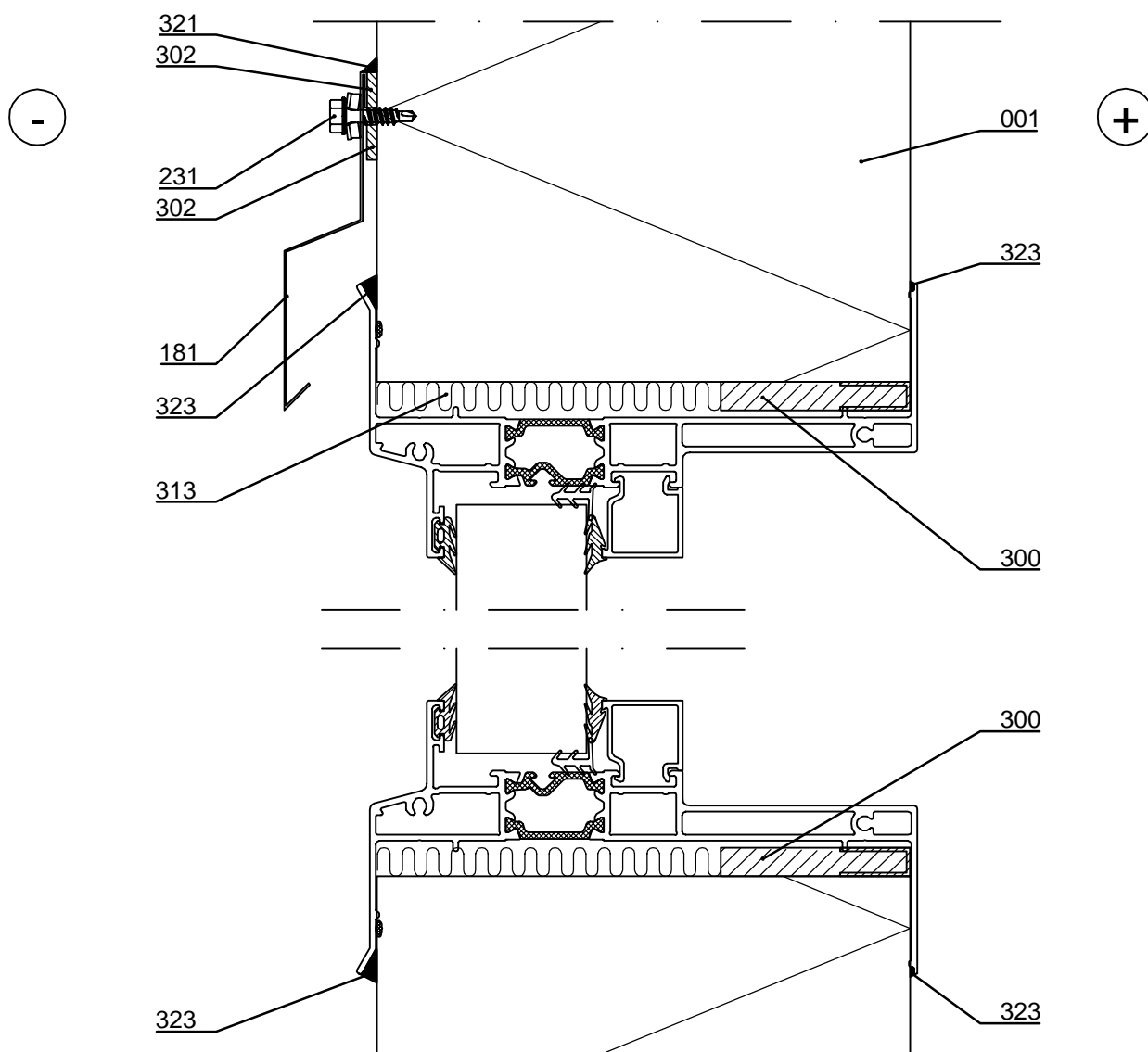


|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-1E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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



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



## Contents of drawing

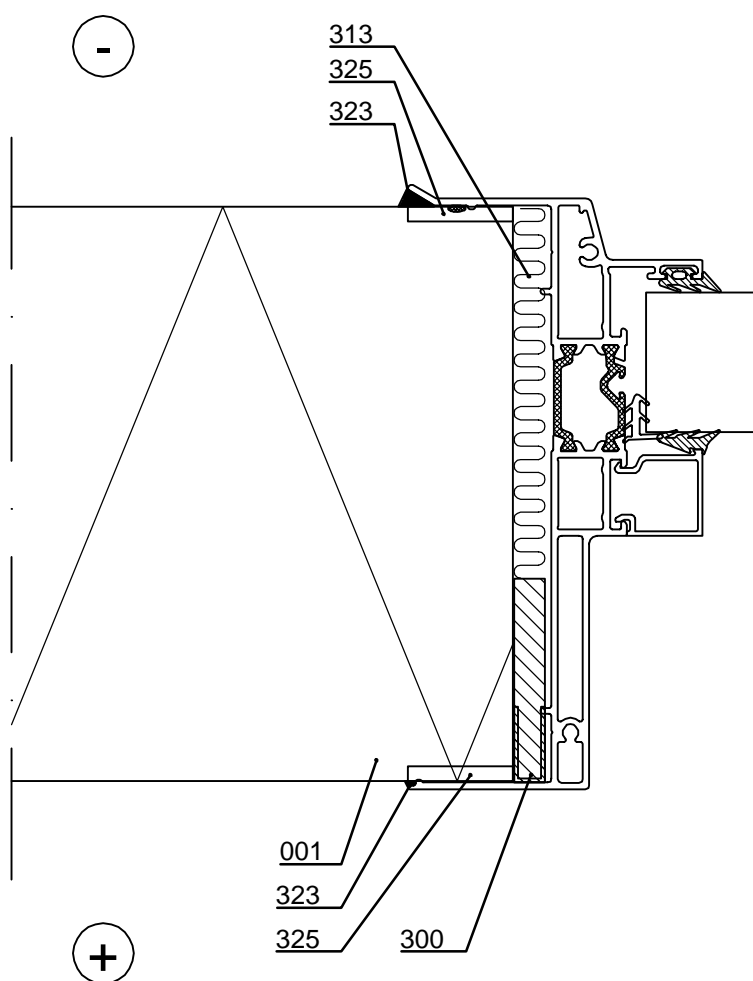
Sandwich panel SPA ENERGY, horizontal inst.  
Ruukki energy window, horizontal section  
Small window

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

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

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

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



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

☒ Ruukki's delivery



## Contents of drawing

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

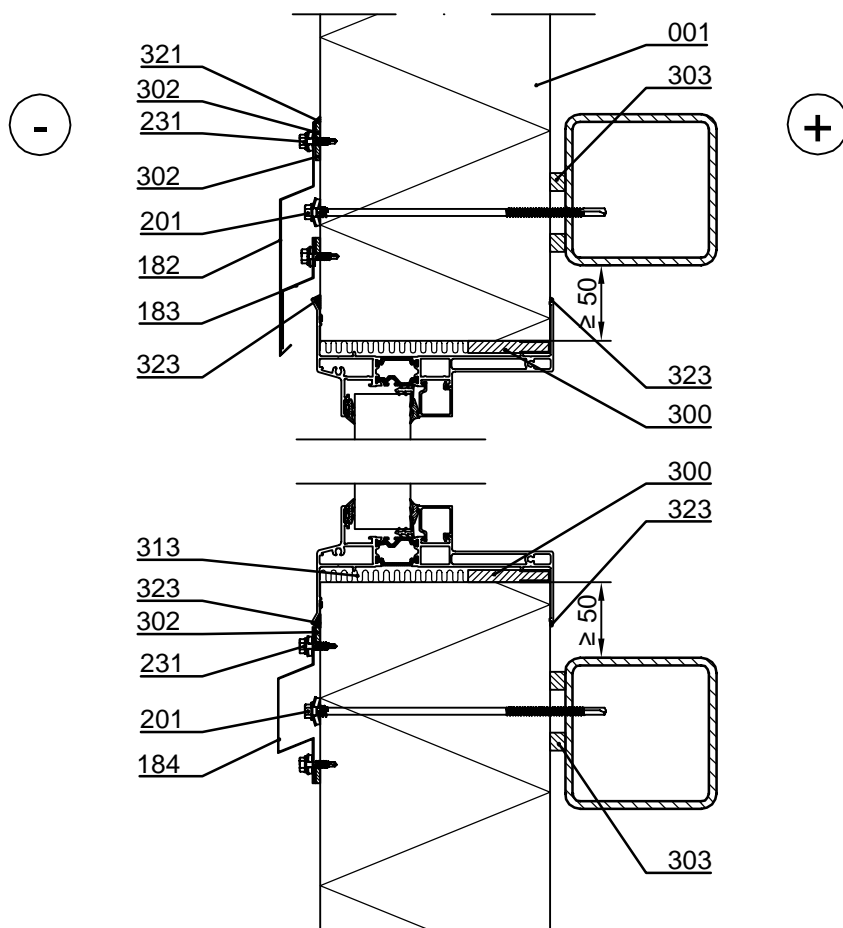
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-3E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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

Supporting structures according to structural designer.



- |  |  |
|--|--|
| <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 sealant mastic                            |
| <input type="checkbox"/> (plastic tape facing inside)                          | <input type="checkbox"/> 323. Ruukki sealant mastic                            |

☒ Ruukki's delivery

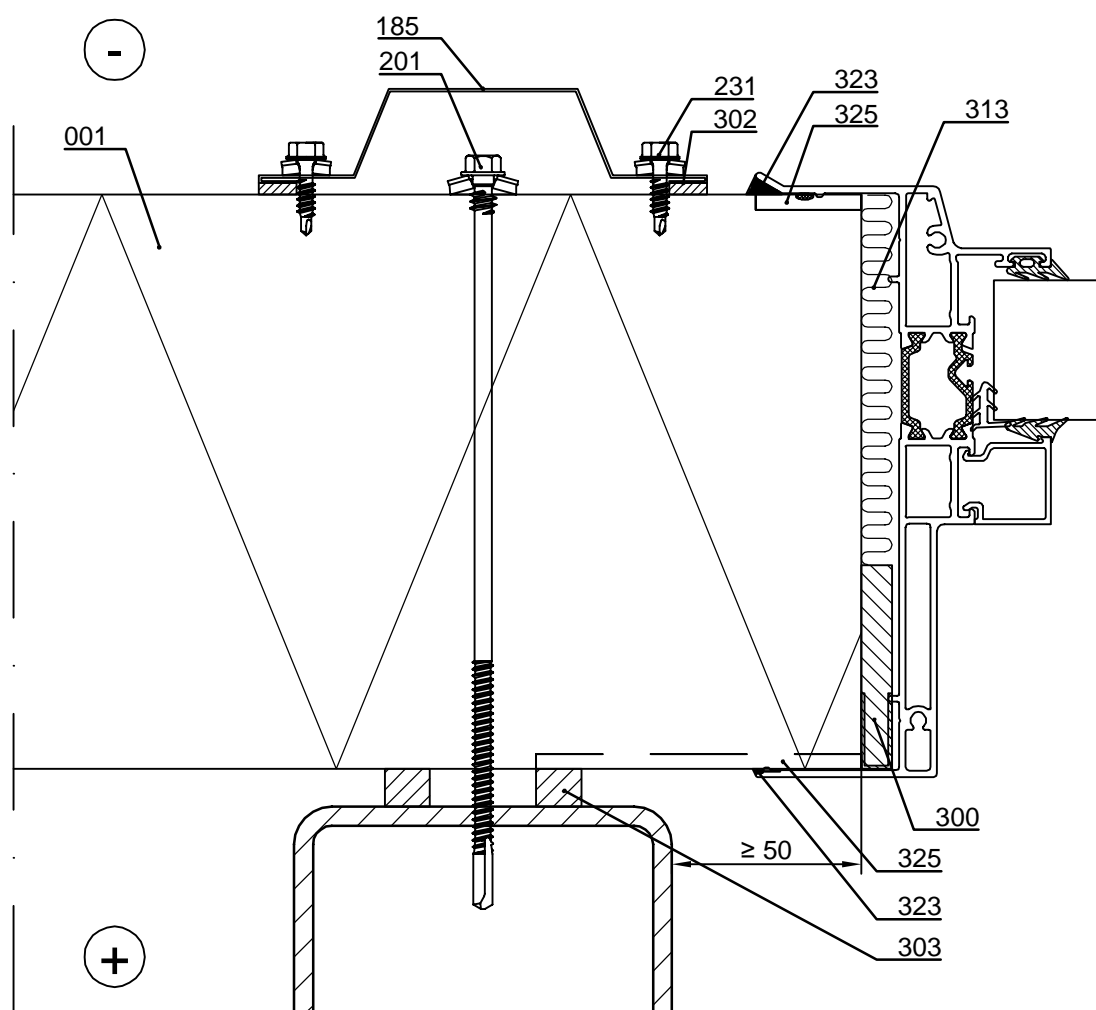
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-4E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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

Supporting structures according to structural designer.



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



Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation  
Window, vertical section

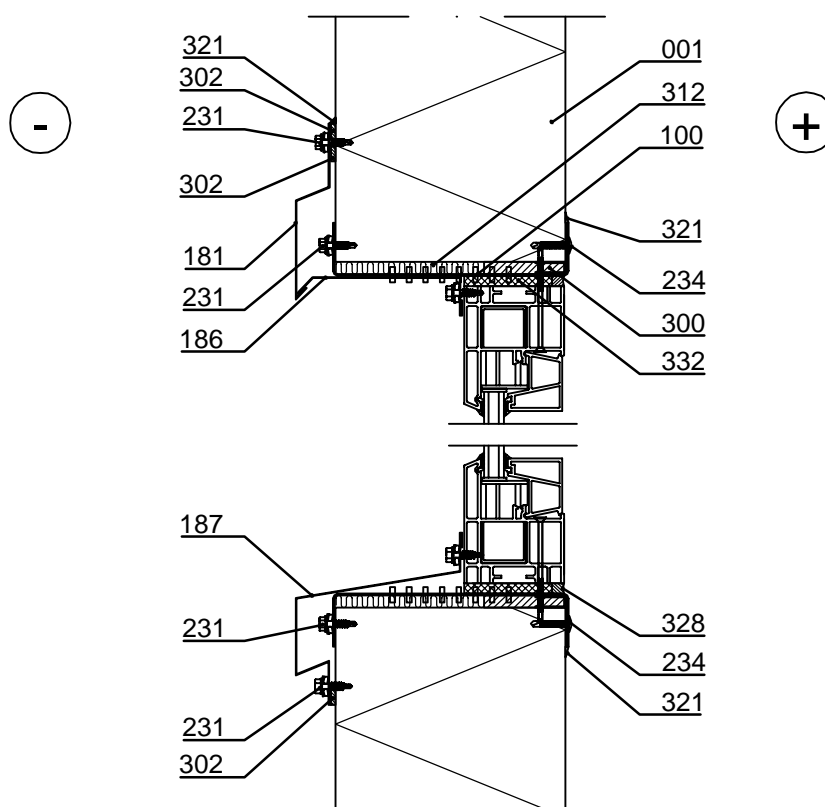
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-5E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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

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



- |   |  |
|---|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY   | <input type="checkbox"/> 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                       | (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. /EAWS___/ Mineral wool               |
| <input type="checkbox"/> 187. External window sill, t = 0.6 mm, acc. to project                     | <input type="checkbox"/> 321. Ruukki sealant mastic                |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing                                | <input type="checkbox"/> 328. Ruukki sealant mastic                |
| <input type="checkbox"/> 234. Flat head flashing fastener   | <input type="checkbox"/> 332. PU foam                              |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band<br>(plastic tape facing inside) |  |

☒ Ruukki's delivery

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## Contents of drawing

Sandwich panel SPA ENERGY, horizontal  
installation

Window, horizontal section

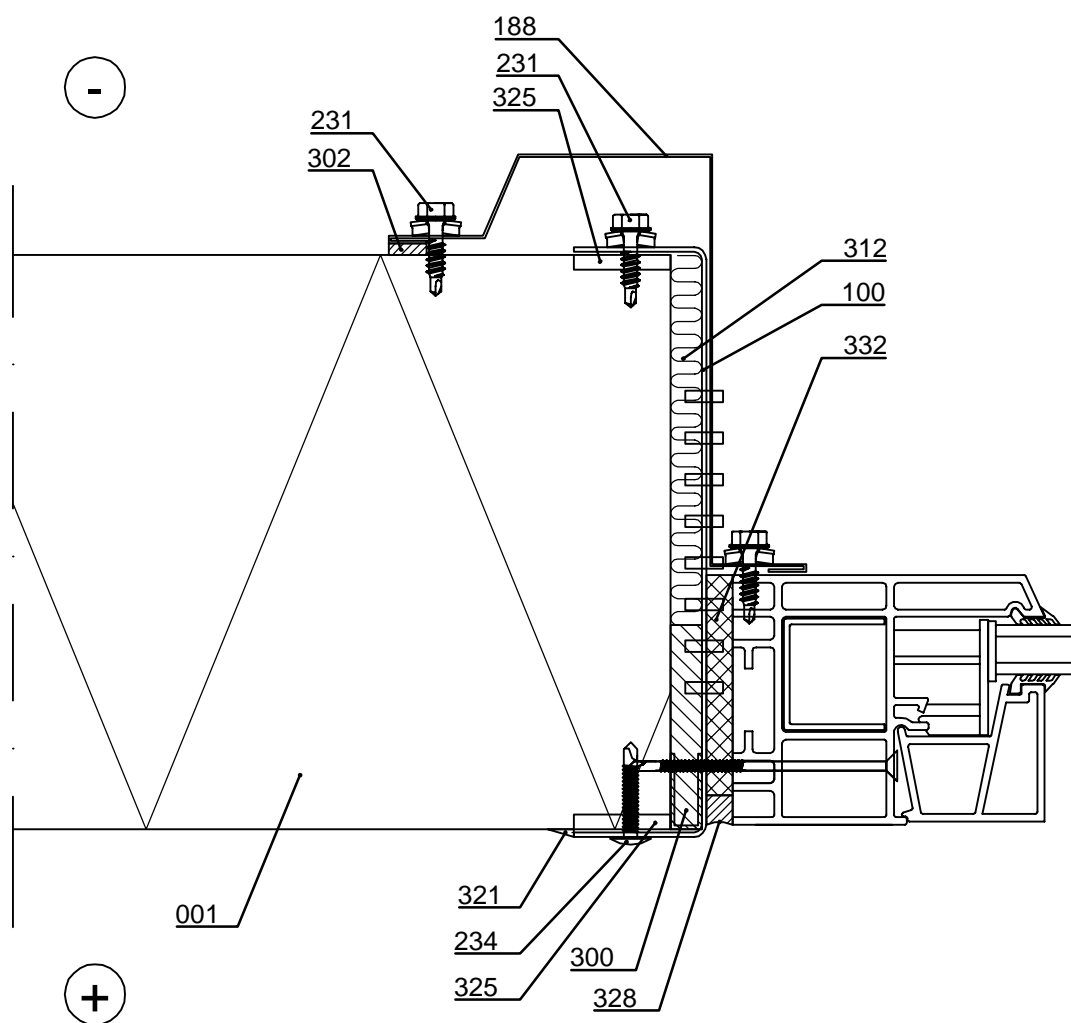
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-6E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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

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



- |   |   |
|---|---|
| <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<br>(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 sealant mastic   |
| <input type="checkbox"/> 234. Flat head flashing fastener   | <input type="checkbox"/> 325. Ruukki sealant mastic during installation<br>to outer and inner female grooves                |
| <input type="checkbox"/> 300. /EA3SWE54318/ Expandable sealing band<br>(plastic tape facing inside) | <input type="checkbox"/> 328. Ruukki sealant mastic   |
| <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

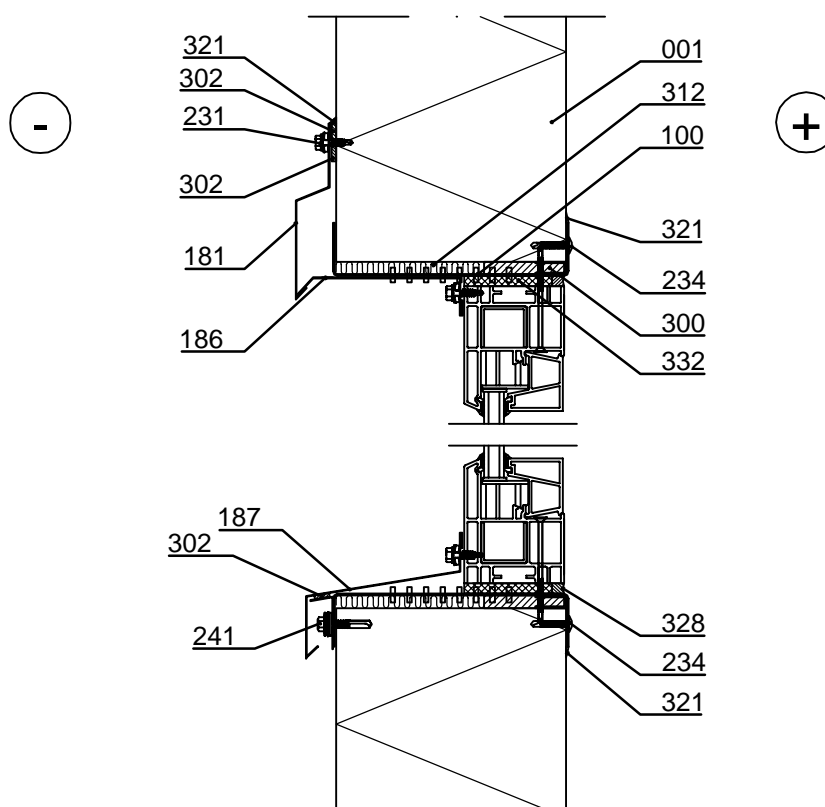
|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-30E-EN |
| Drawn by<br>Ruukki | Rev.      |          |      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

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

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

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

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



- |  |  |
|--|--|
| <input type="checkbox"/> 001. Sandwich panel SPA ENERGY                              | <input type="checkbox"/> 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        | (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. /EAWS___/ Mineral wool               |
| <input type="checkbox"/> 187. External window sill, t = 0.6 mm, acc. to project      | <input type="checkbox"/> 321. Ruukki sealant mastic                |
| <input type="checkbox"/> 231. Flashing fastener, washer with sealing                 | <input type="checkbox"/> 328. Ruukki sealant mastic                |
| <input type="checkbox"/> 234. 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                       |  |
| (plastic surface towards the inside)   |  |

☒ Ruukki's delivery

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Contents of drawing

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

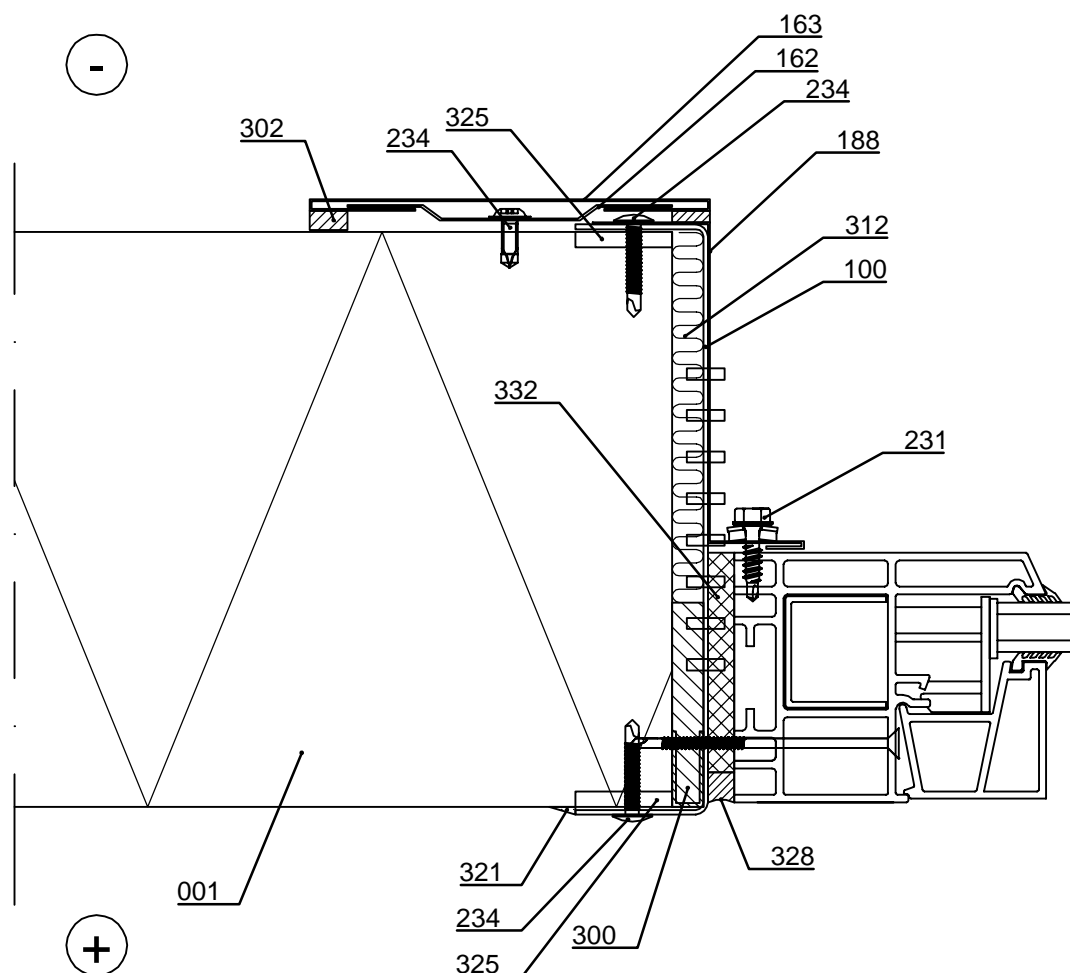
|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-31E-EN |
| Drawn by<br>Ruukki | Rev.      |          |      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

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

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

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

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



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. /EA1W\_\_\_/ Window frame stud
- ☐ 162. /EA1WXBI/ Window bottom flashing Invisible
- ☐ 163. /EA1WEI/ Window flashing Invisible
- ☐ 188. Cover flashing, t = 0.6 mm, according to project
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 234. Flat head flashing fastener
- ☐ 300. /EA3SWE54318/ Expandable sealing (plastic surface towards the inside)
- ☐ 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 321. Ruukki sealant mastic
- ☐ 325. Ruukki sealant mastic during installation to outer- and inner groove
- ☐ 328. Ruukki sealant mastic
- ☐ 332. PU-foam

☐ Ruukki's delivery

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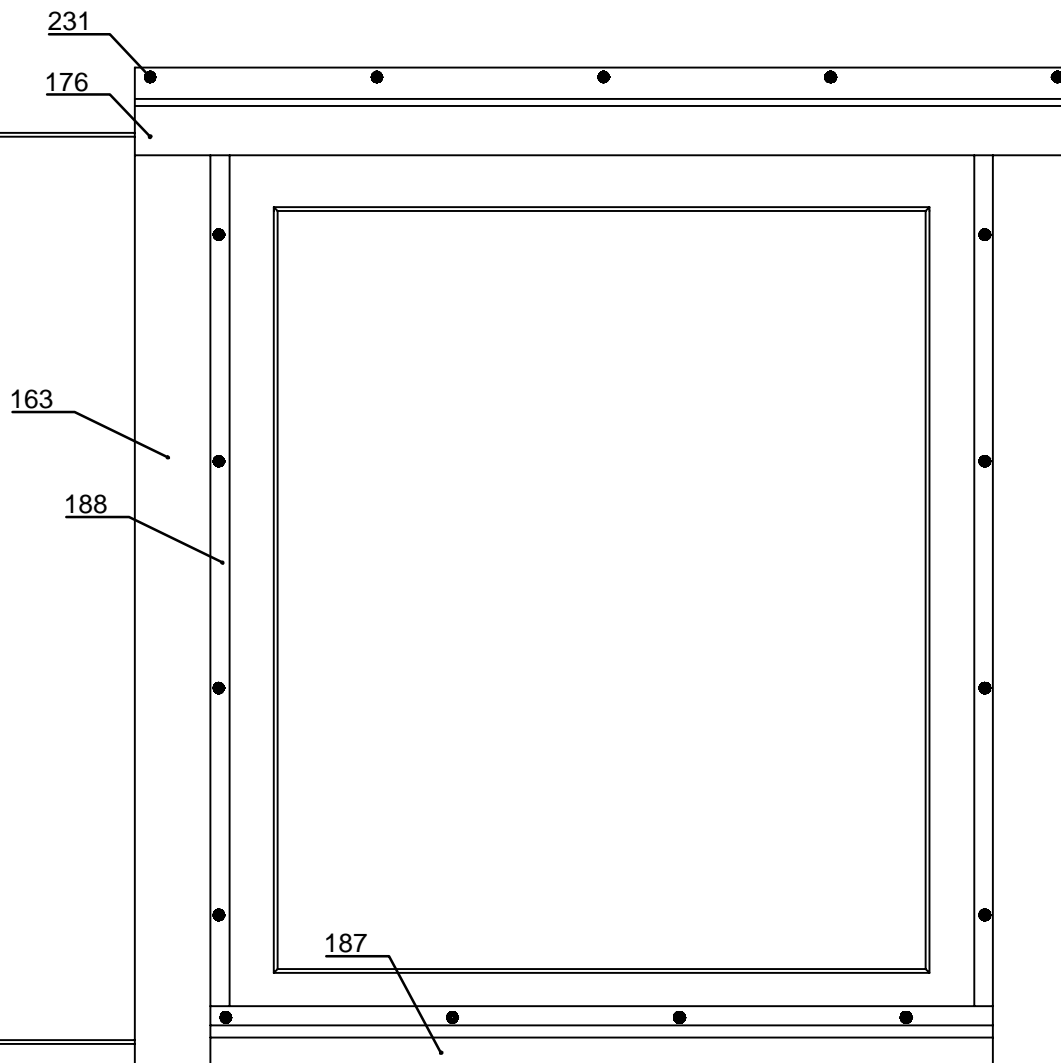




Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.  
Window  
Invisible flashing

|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA08-ENERGY-32E-EN |
| Drawn by<br>Ruukki | Rev.      |          |                                    |
| Scale<br>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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## Contents of drawing

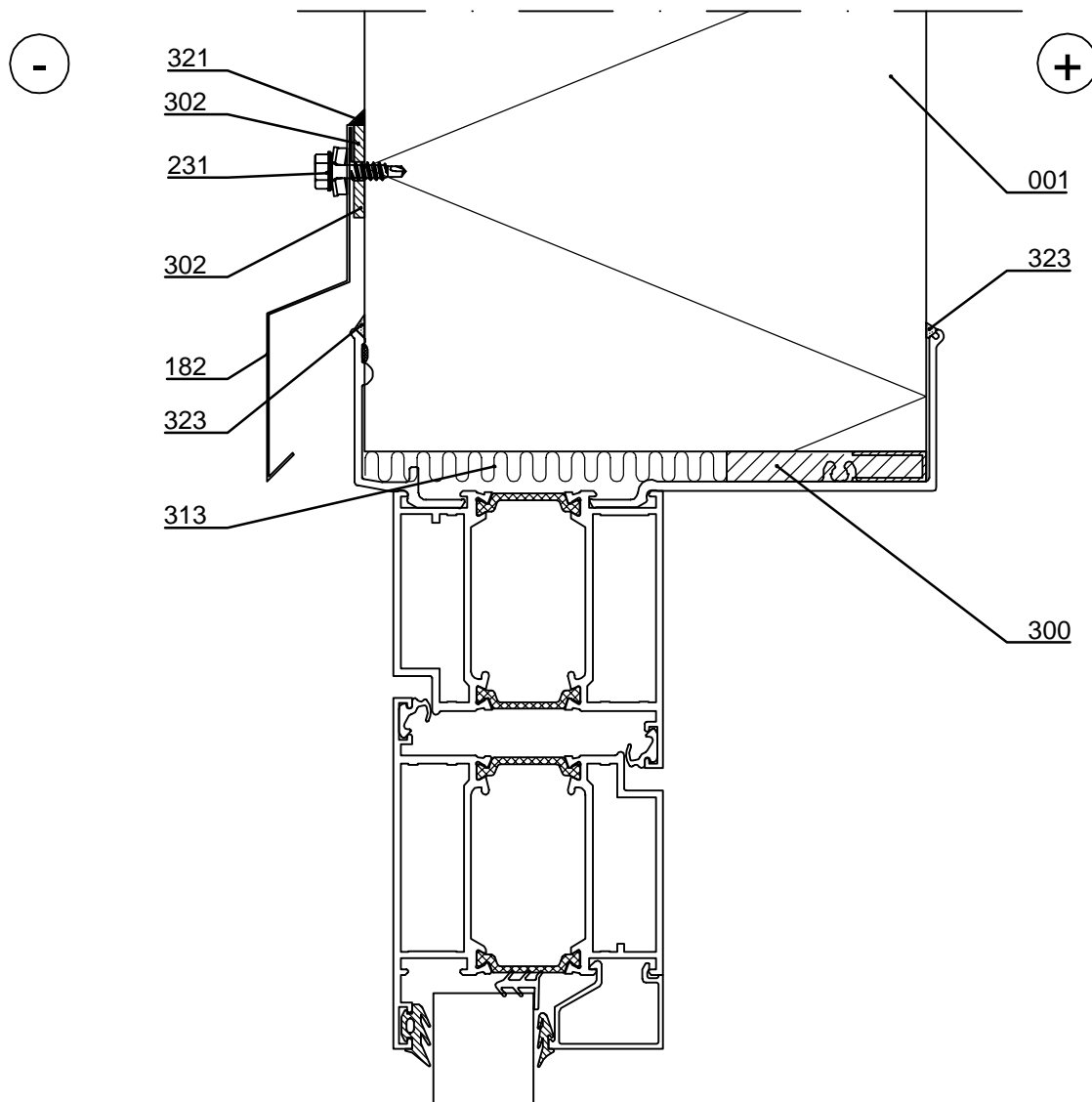
Sandwich panel SPA ENERGY, horizontal inst.  
Ruukki energy door, vertical section  
Single door

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

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

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

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



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

☒ Ruukki's delivery

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## Contents of drawing

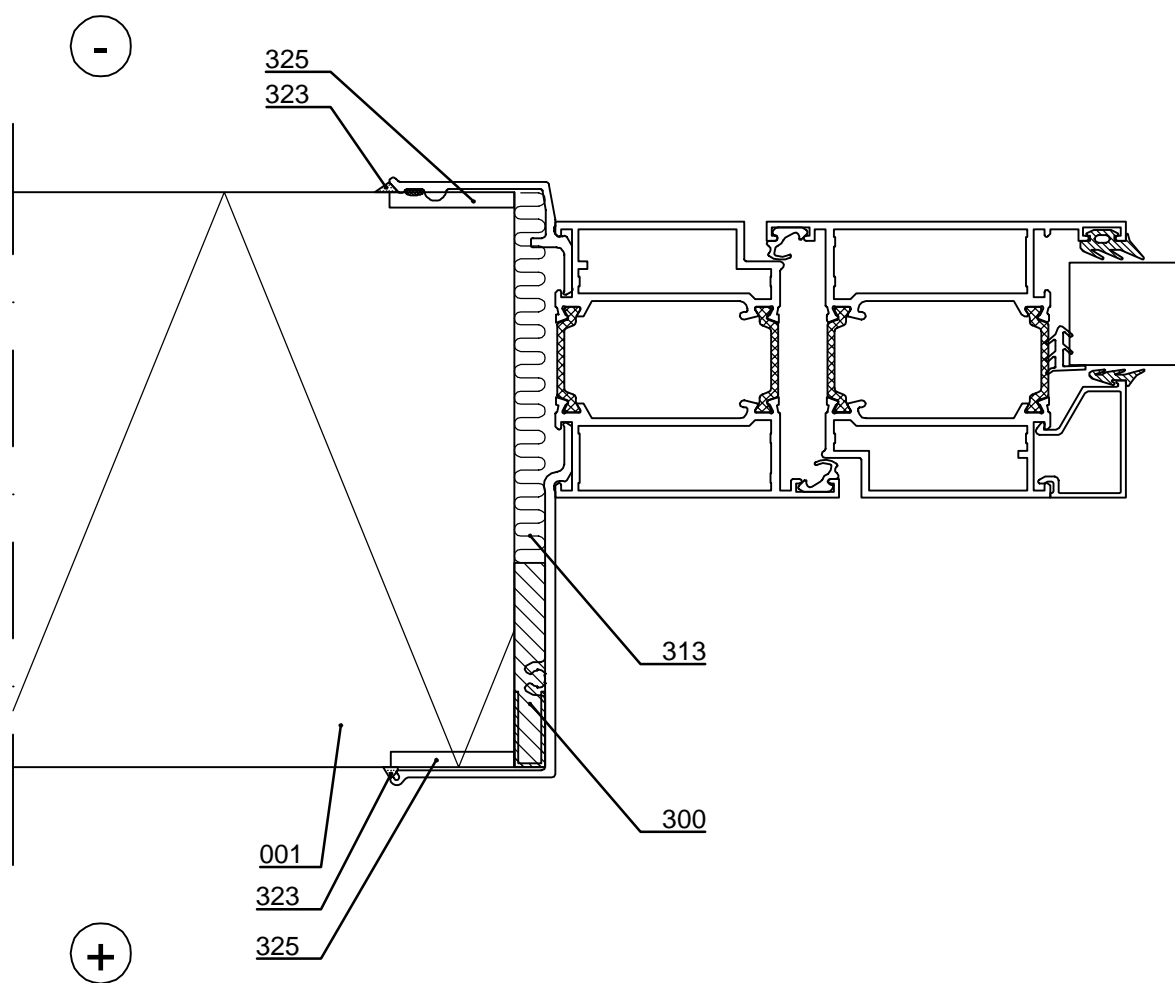
Sandwich panel SPA ENERGY, horizontal inst.  
Ruukki energy door, horizontal section  
Single door

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

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

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

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



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

☒ Ruukki's delivery



Contents of drawing

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

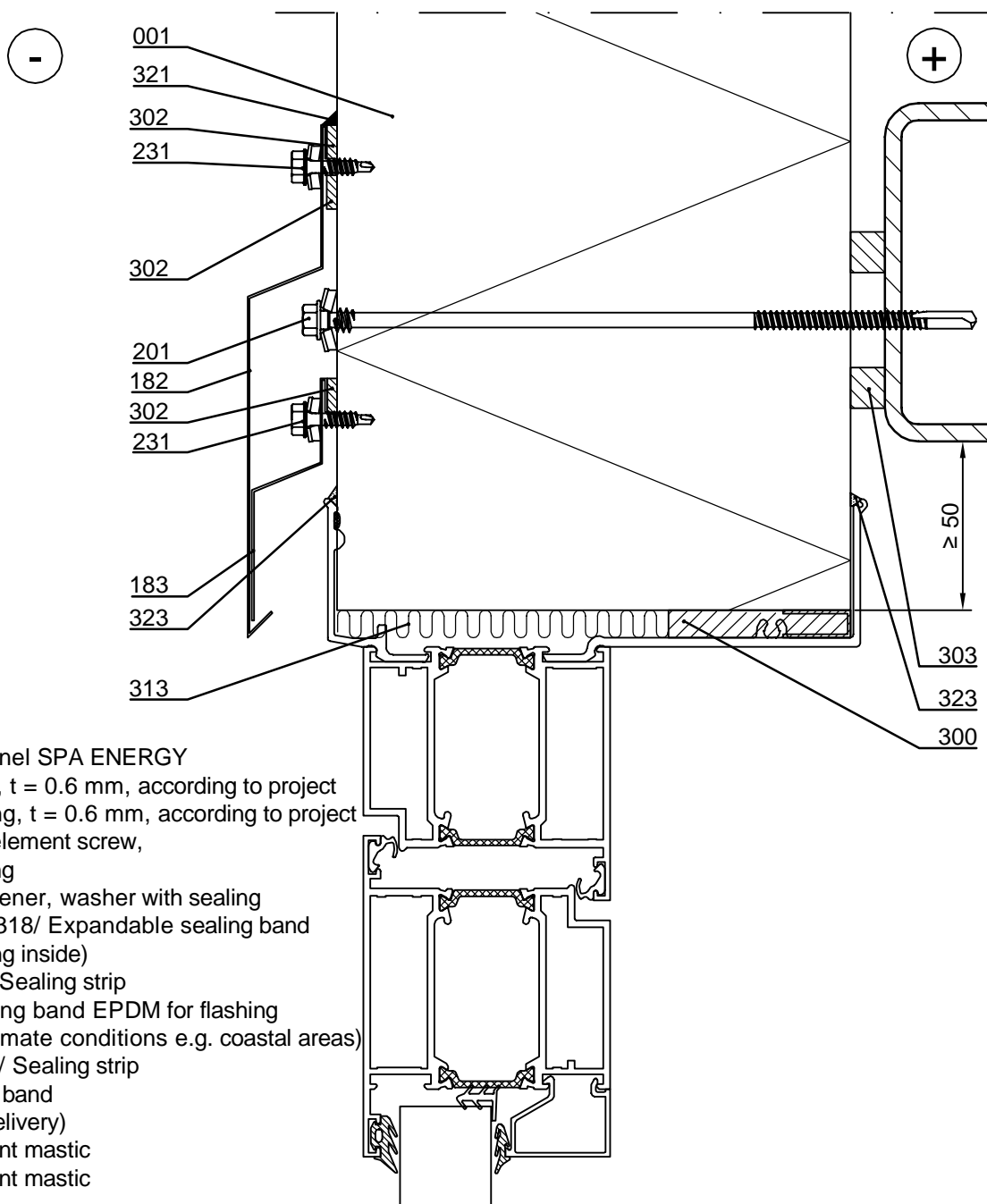
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA09-ENERGY-3E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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

Supporting structures according to structural designer.



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

☒ Ruukki's delivery



Contents of drawing

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

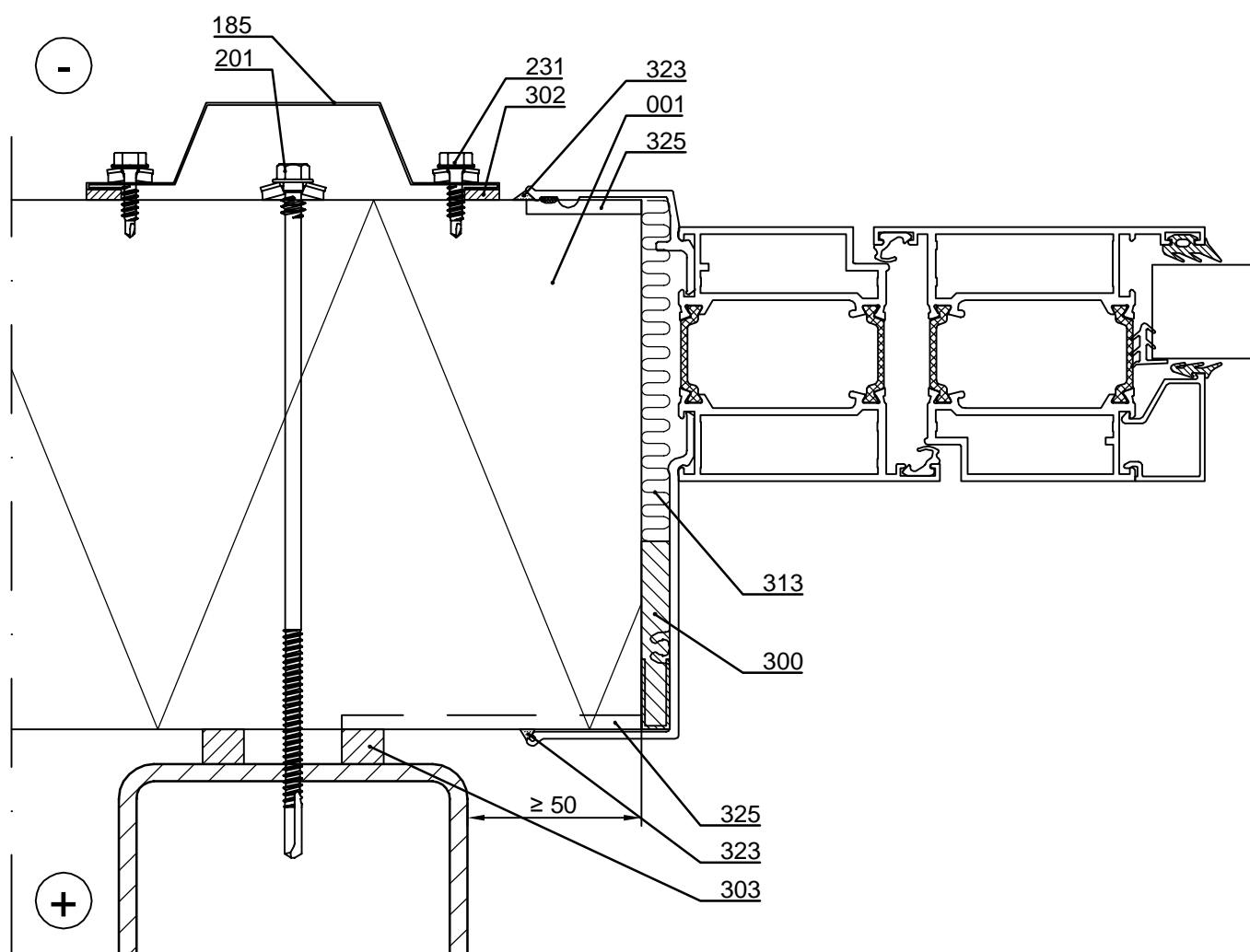
|                    |           |          |                                   |
|--------------------|-----------|----------|-----------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA09-ENERGY-4E-EN |
| Drawn by<br>Ruukki | Rev.      |          |         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

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

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

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

Supporting structures according to structural designer.



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 185. Cover flashing, t = 0.6 mm, according to project
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- ☐ 302. /EA3SS410/ Sealing strip /EA3SS510/ Sealing band EPDM for flashing (for demanding climate conditions e.g. coastal areas)
- ☐ 303. /EA3SS1210/ Sealing strip
- ☐ 313. Mineral wool band (in system door delivery)
- ☐ 323. Ruukki sealant mastic
- ☐ 325. Ruukki sealant mastic during installation to outer and inner female grooves

☒ Ruukki's delivery

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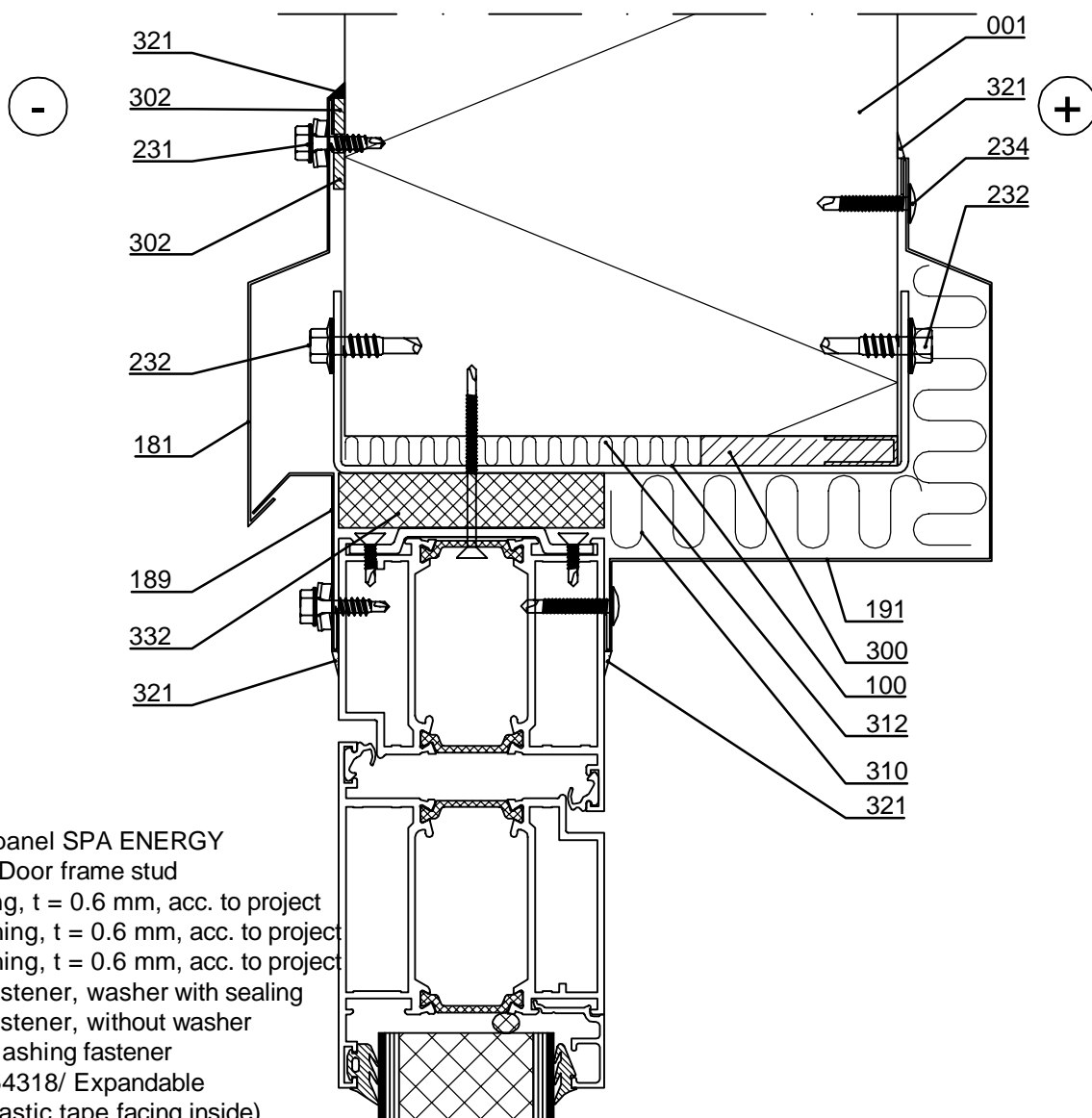
Sandwich panel SPA ENERGY, horizontal  
installation  
Door, vertical section

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

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

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

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



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. EA1D\_\_\_/ Door frame stud
- ☐ 181. Drip flashing, t = 0.6 mm, acc. to project
- ☐ 189. Cover flashing, t = 0.6 mm, acc. to project
- ☐ 191. Cover flashing, t = 0.6 mm, acc. to project
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 232. Flashing fastener, without washer
- ☐ 234. Flat head flashing fastener
- ☐ 300. /EA3SWE54318/ Expandable sealing band (plastic tape facing inside)
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing  
(for demanding climate conditions e.g. coastal areas)
- ☐ 310. /EA\_\_\_\_/ Mineral- / stonewool
- ☐ 312. /EAWS\_\_\_\_/ Mineral wool
- ☐ 321. Ruukki sealant mastic
- ☐ 322. PU-foam

☒ Ruukki's delivery

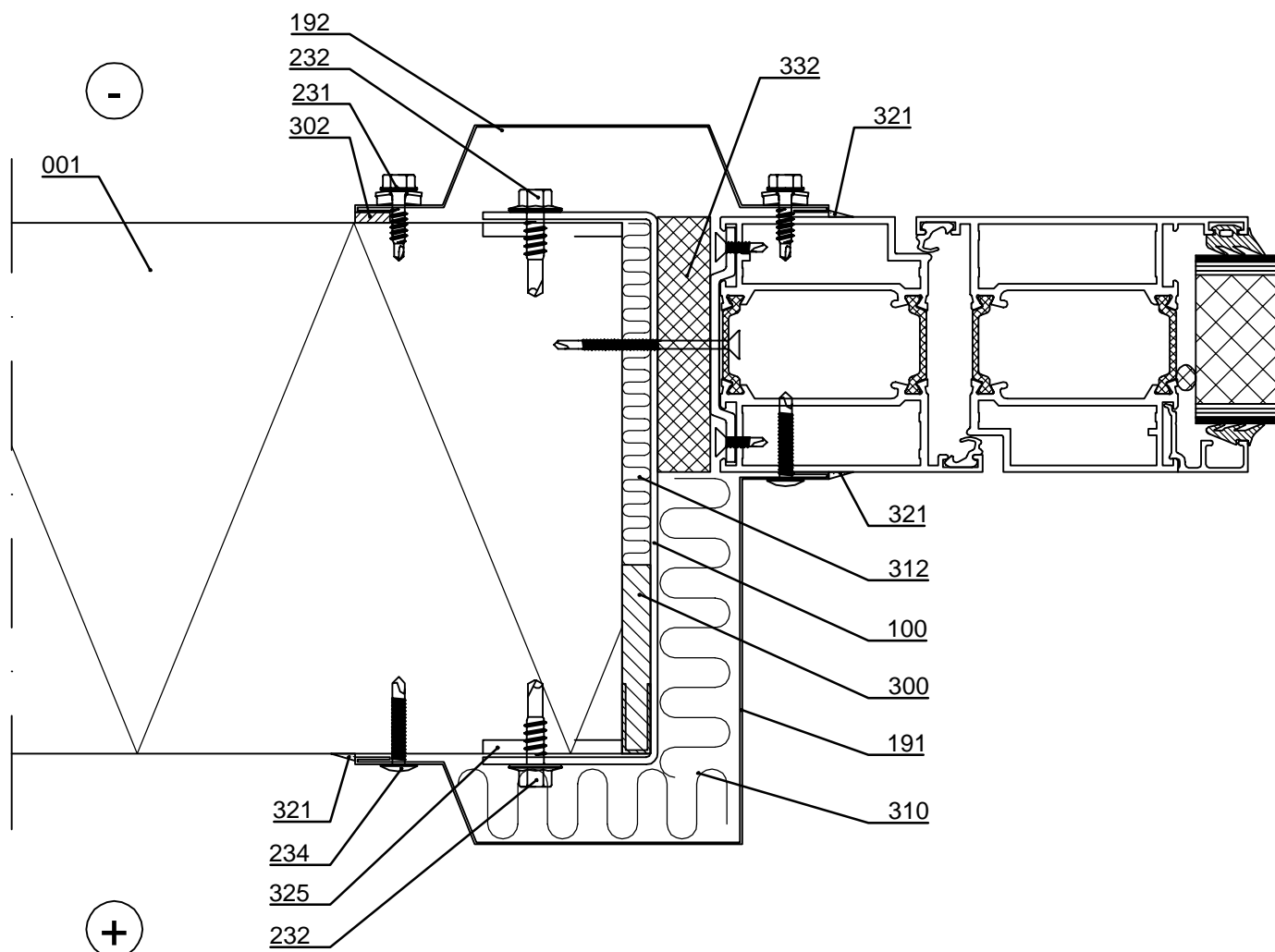
Sandwich panel SPA ENERGY, horizontal  
installation  
Door, horizontal section

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

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

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

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



- |  |  |
|--|--|
| <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                           |
| <input type="checkbox"/> 232. Flashing fastener, without washer                | <input type="checkbox"/> 321. Ruukki sealant mastic                            |
| <input type="checkbox"/> 234. Flat headed flashing fastener                    | <input type="checkbox"/> 325. Ruukki sealant mastic 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

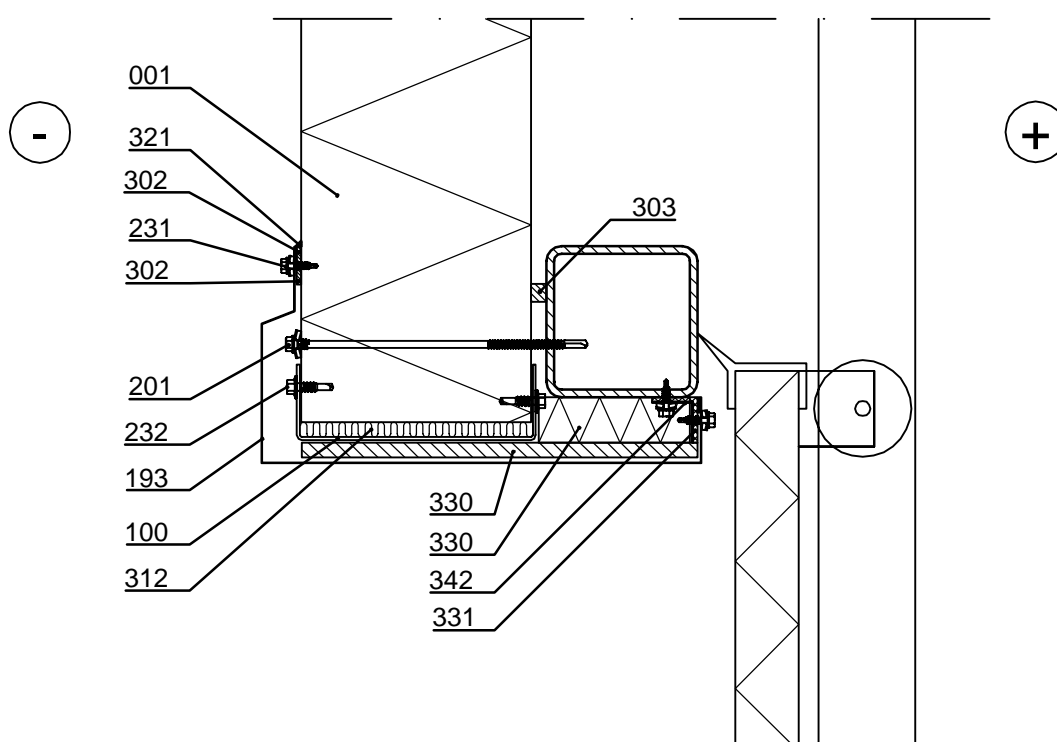
Sandwich panel SPA ENERGY, horizontal  
installation  
Overhead door, vertical section

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

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

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

Supporting structures according to structural designer.



- ☐ 001. Sandwich panel SPA ENERGY
- ☐ 100. EA1D\_\_\_/ Door frame stud
- ☐ 193. Drip-/cover flashing, t = 0.6 mm, acc. to project
- ☐ 201. Self-drilling element screw, washer with sealing
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 232. Flashing fastener, without washer
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing  
(for demanding climate conditions e.g. coastal areas)

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

☒ Ruukki's delivery

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Contents of drawing

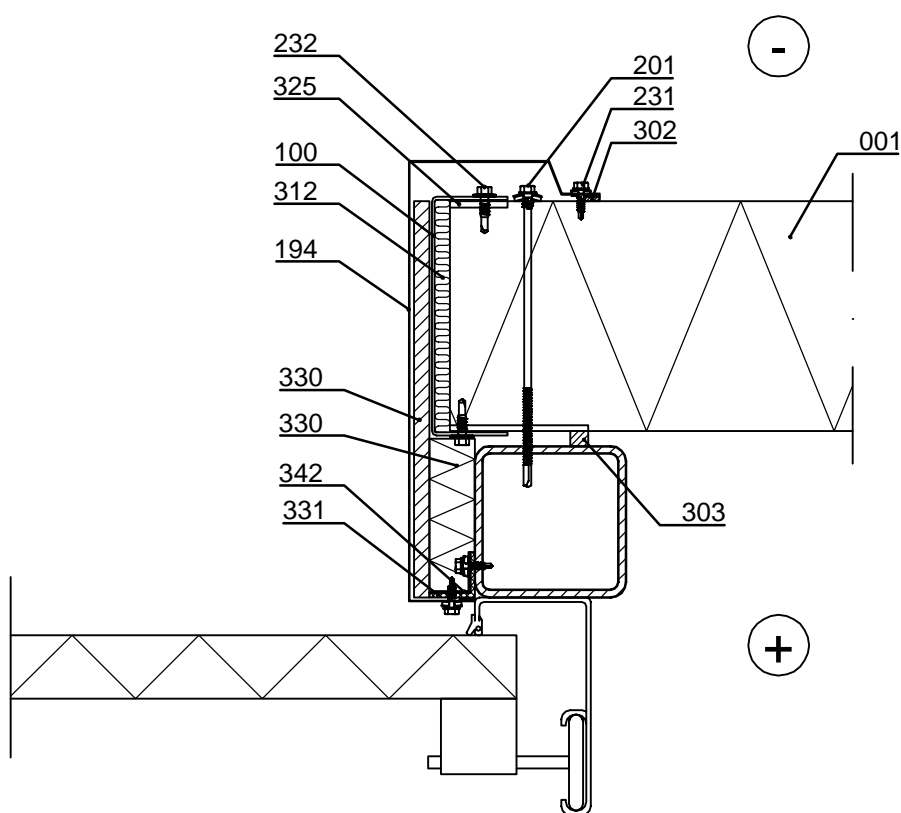
Sandwich panel SPA ENERGY, horizontal  
installation  
Overhead door, horizontal section

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

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

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

Supporting structures according to structural designer.



- |  |   |
|--|---|
| <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                    |
| <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 sealant mastic during installation |
| <input type="checkbox"/> 302. /EA3SS410/ Sealing band for flashing<br>/EA3SS510/ Sealing band EPDM for flashing<br>(for demanding climate conditions e.g. coastal areas) | to outer and inner female grooves                                       |

☒ Ruukki's delivery

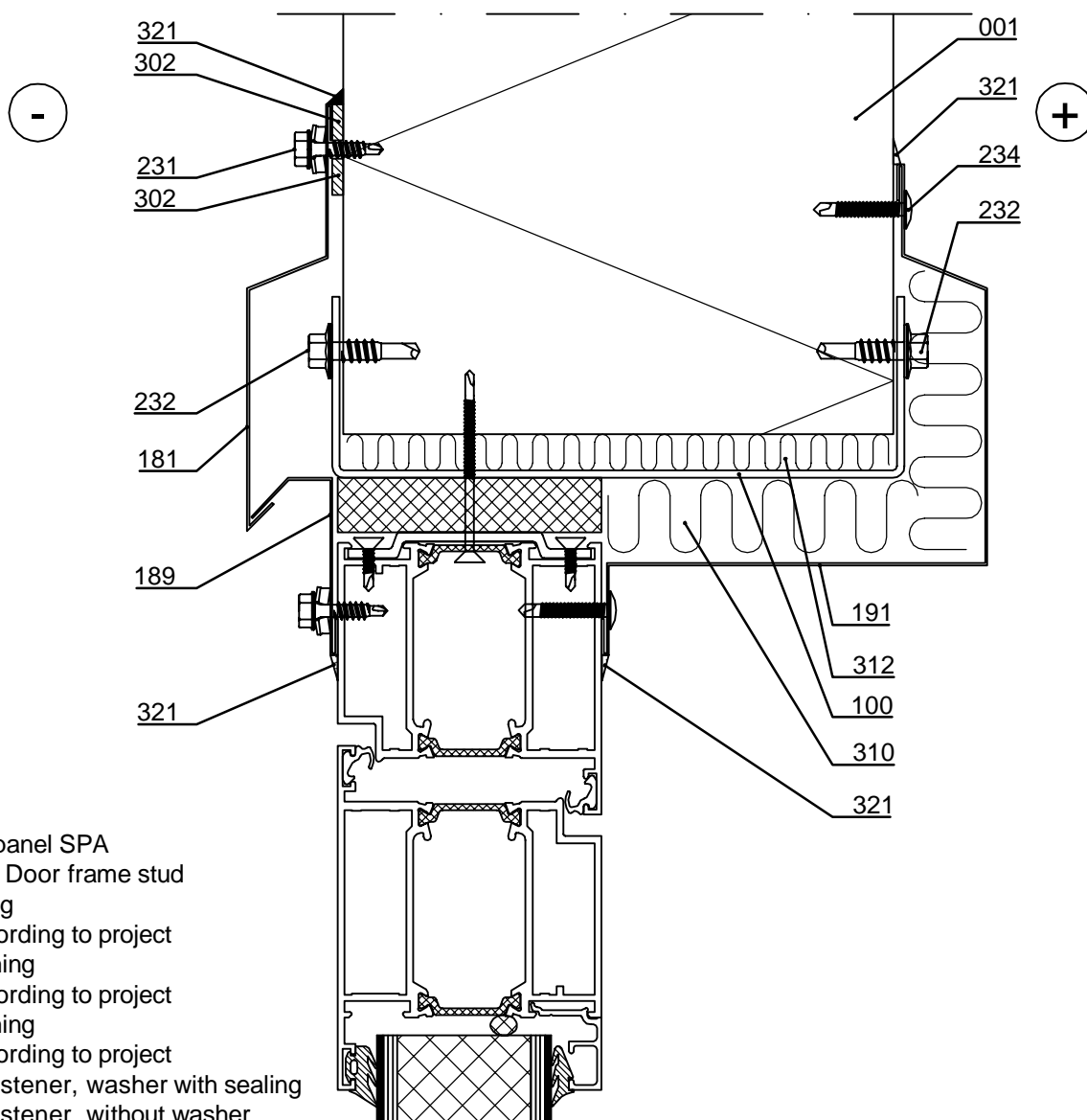
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|                    |           |          |                                    |
|--------------------|-----------|----------|------------------------------------|
| Date<br>01.10.2025 | Rev. date | Work nr. | Drawing nr.<br>SPA09-ENERGY-30E-EN |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

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

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

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



- ☐ 001. Sandwich panel SPA
- ☐ 100. /EA1D\_\_\_/ Door frame stud
- ☐ 181. Drip flashing  
t = 0.6 mm, according to project
- ☐ 189. Cover flashing  
t = 0.6 mm, according to project
- ☐ 191. Cover flashing  
t = 0.6 mm, according to project
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 232. Flashing fastener, without washer
- ☐ 234. Flat head flashing fastener
- ☐ 302. /EA3SS410/ Sealing strip  
/EA3SS510/ Sealing band EPDM for flashing  
(for demanding climate conditions e.g. coastal areas)
- ☐ 310. Mineral wool
- ☐ 312. /EAWS\_\_\_/ Mineral wool
- ☐ 321. Ruukki sealant mastic

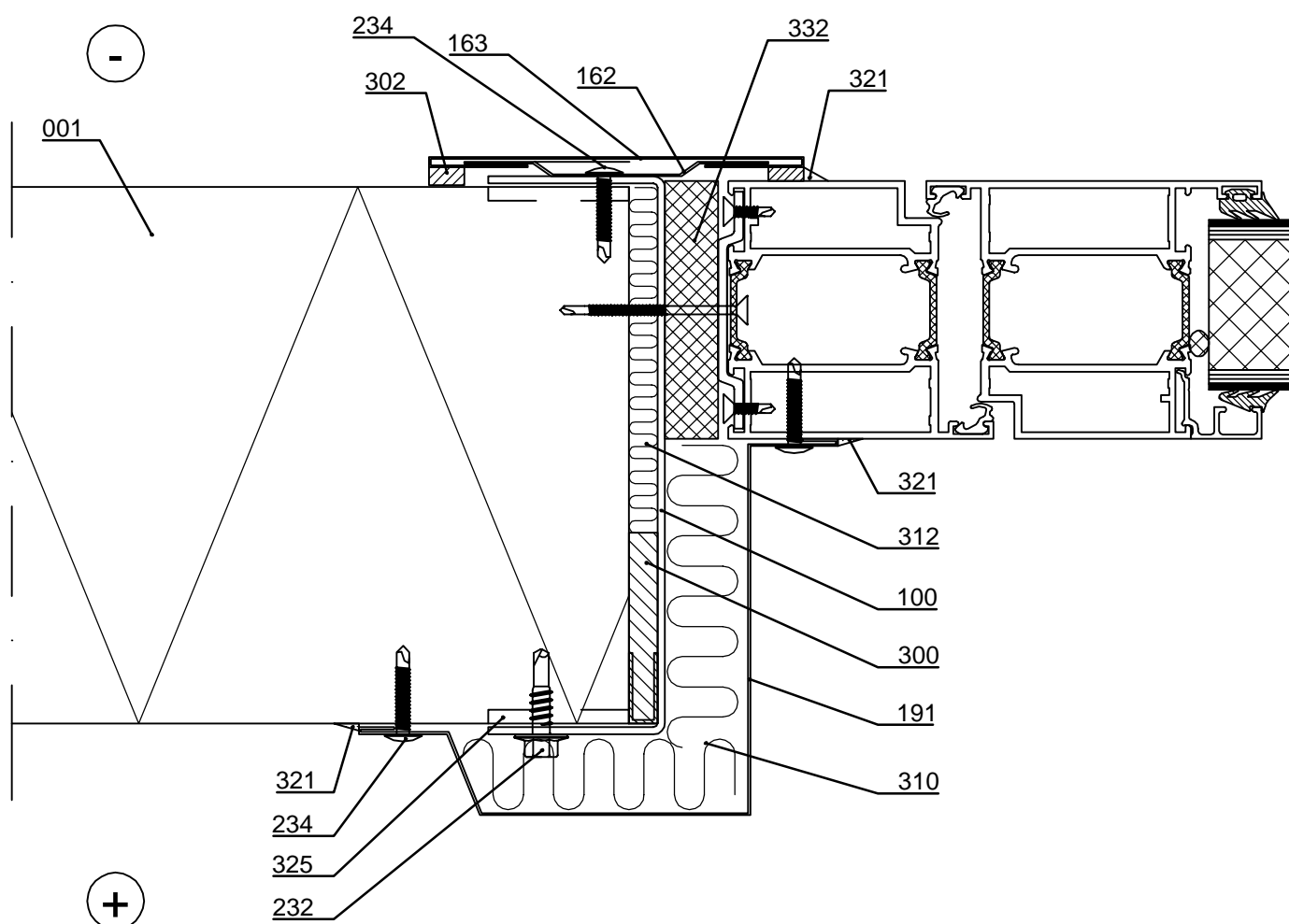
☒ Ruukki's delivery

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

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

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

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



- |  |  |
|--|--|
| <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               |
| <input type="checkbox"/> 232. Flashing fastener, without washer                | <input type="checkbox"/> 321. Ruukki sealant mastic                |
| <input type="checkbox"/> 234. Flat head flashing fastener                      | <input type="checkbox"/> 325. Ruukki sealant mastic                |
| <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                              |

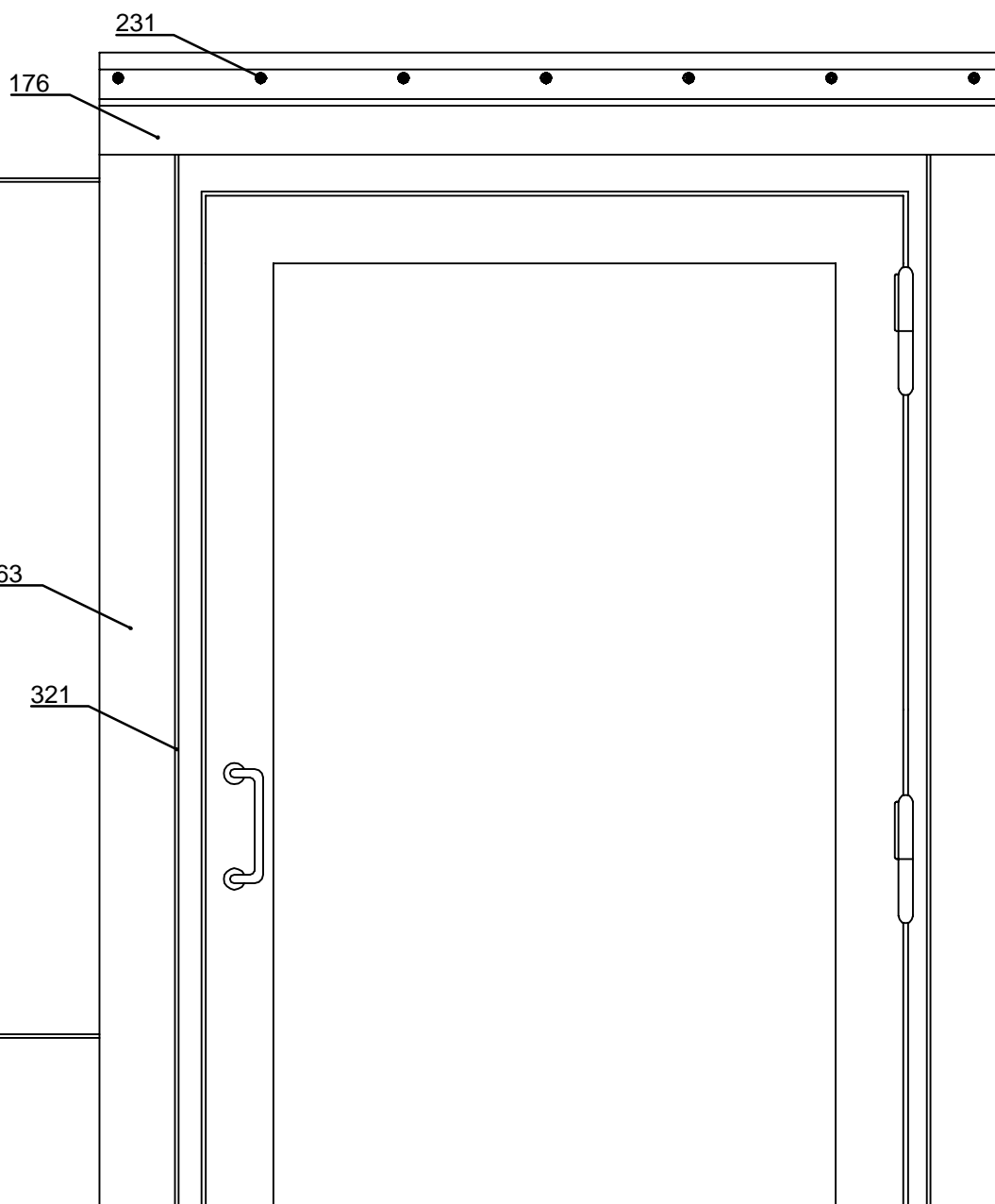
☒ Ruukki's delivery



Contents of drawing

Sandwich panel SPA ENERGY, horizontal inst.  
Door  
Invisible flashing

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



- ☐ 163. /EA1WEI/ Window flashing Invisible
- ☐ 176. Drip flashing, t = 0.6 mm, according to project
- ☐ 231. Flashing fastener, washer with sealing
- ☐ 321. Ruukki elastic mastic

☒ Ruukki's delivery

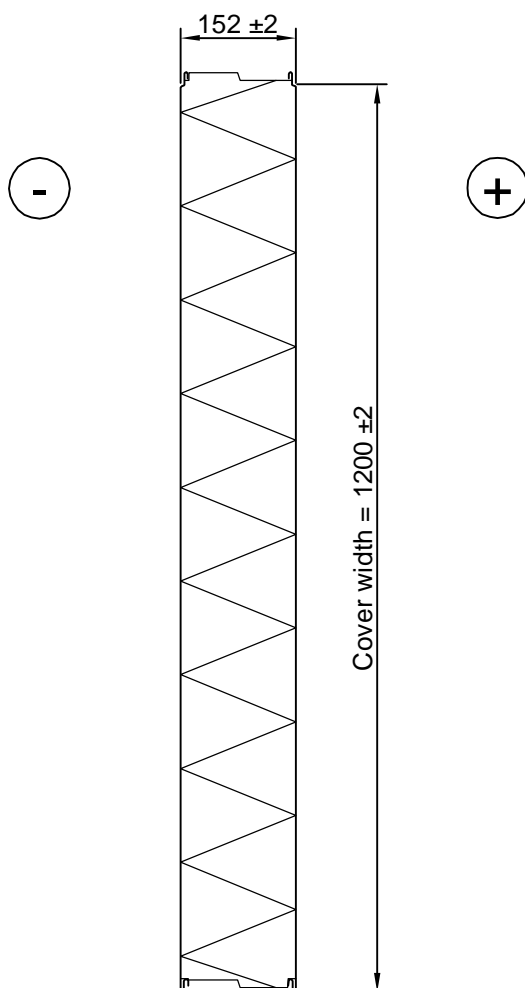
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Contents of drawing

Sandwich panel SPA150 ENERGY

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

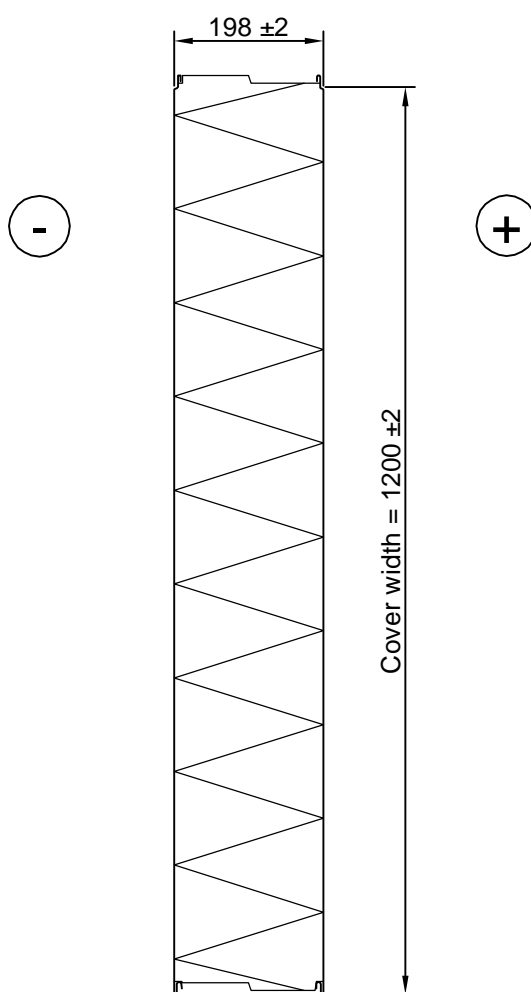




Contents of drawing

Sandwich panel SPA200 ENERGY

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

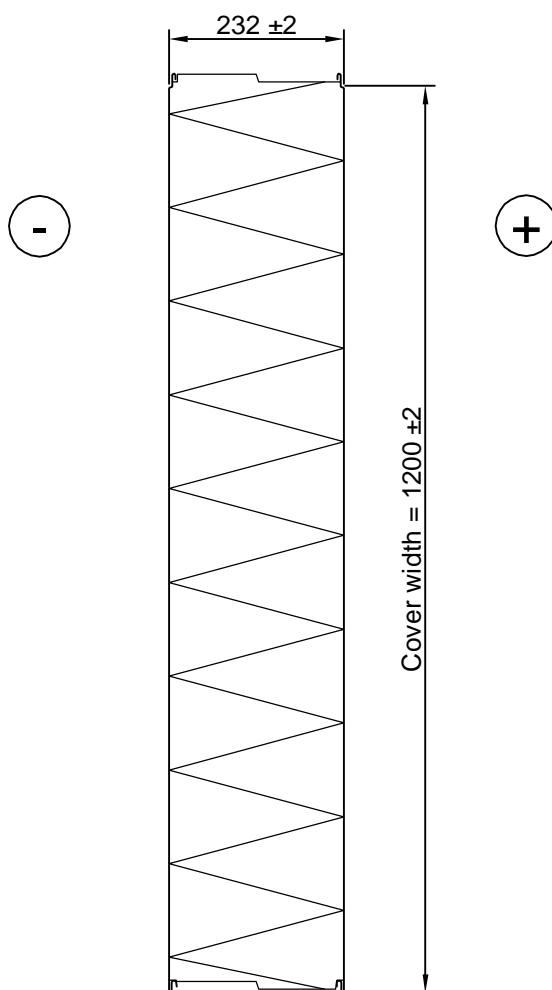




Contents of drawing

Sandwich panel SPA230 ENERGY

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

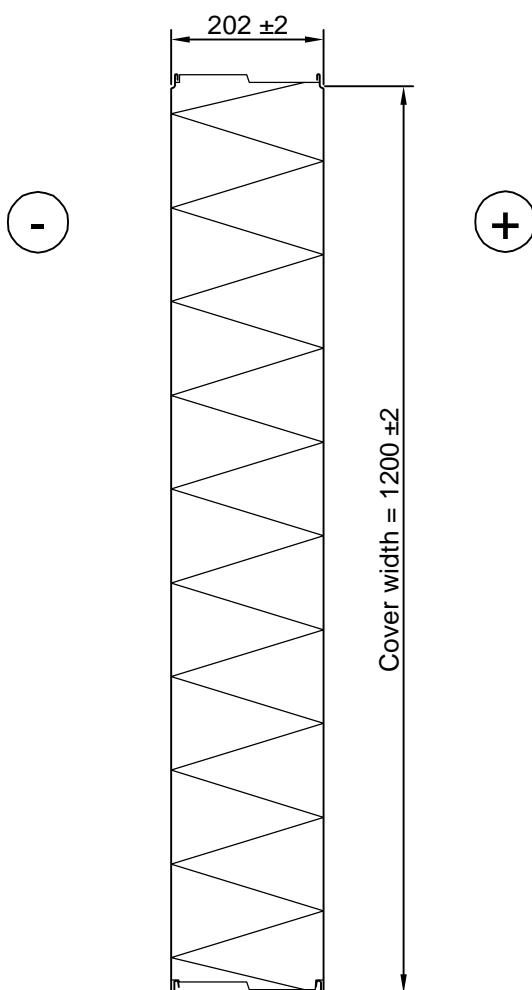




Contents of drawing

Sandwich panel SPA200+ ENERGY

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



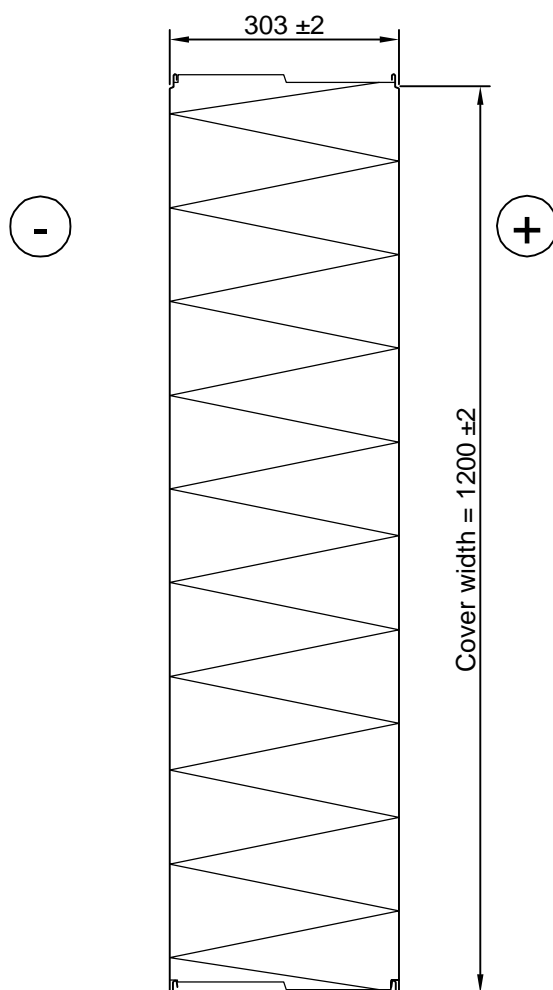




Contents of drawing

Sandwich panel SPA300 ENERGY

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



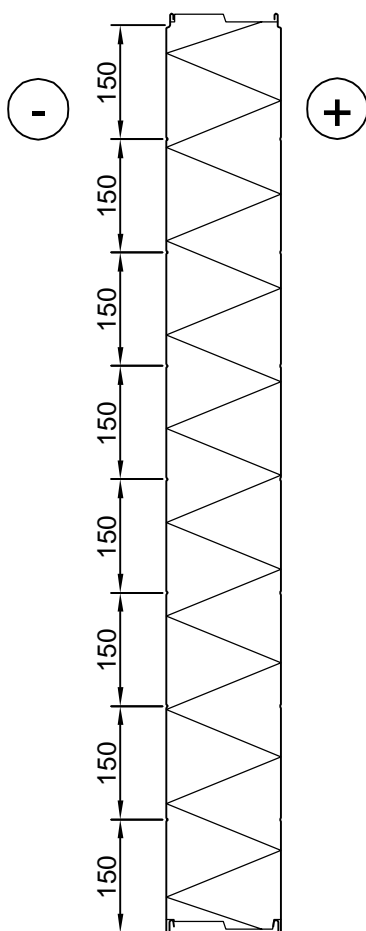


Contents of drawing

Sandwich panel SPA  
Rib R150 surface profiling

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

Available for external and internal facings.



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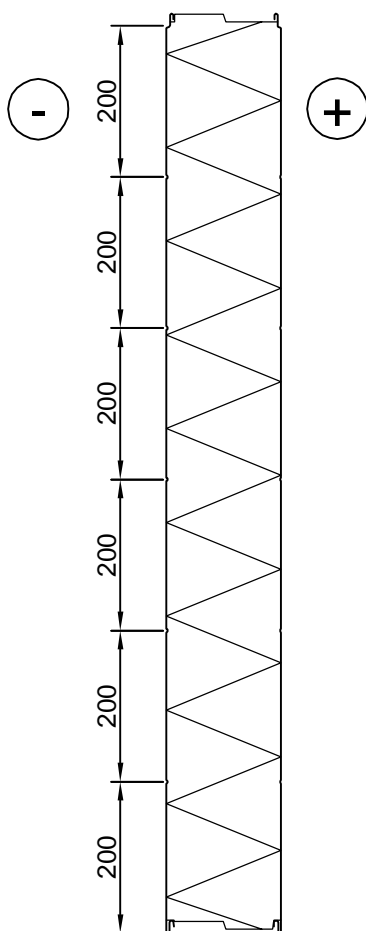


Contents of drawing

Sandwich panel SPA  
Rib R200 surface profiling

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

Available for external and internal facings.



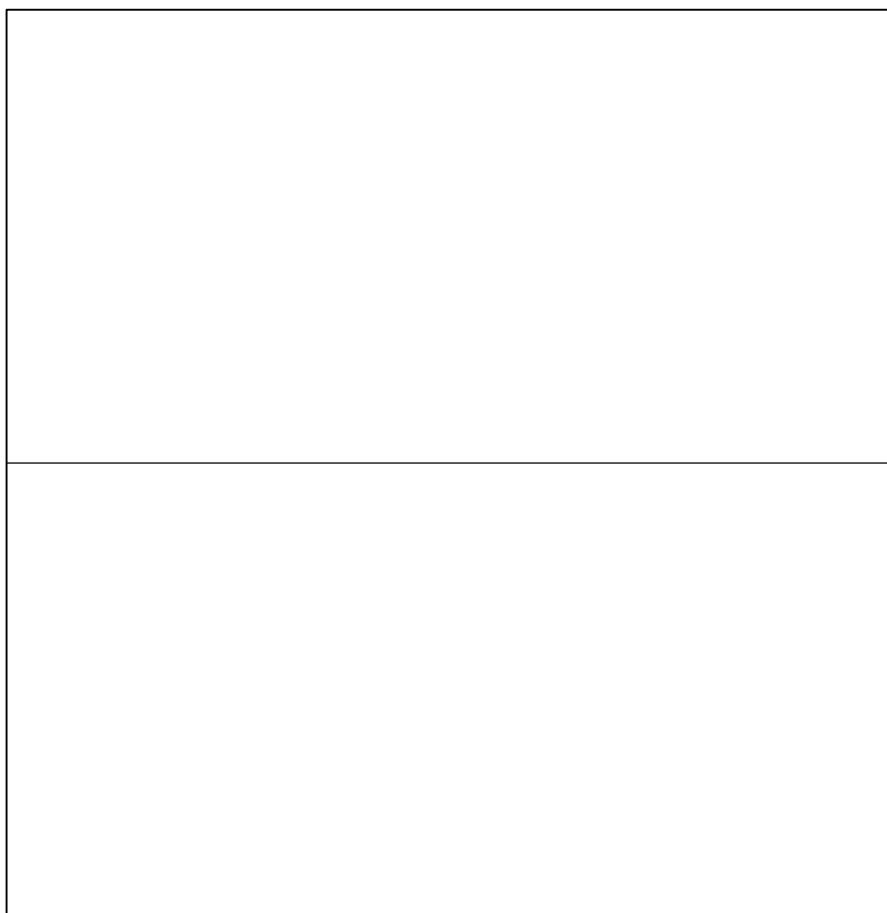
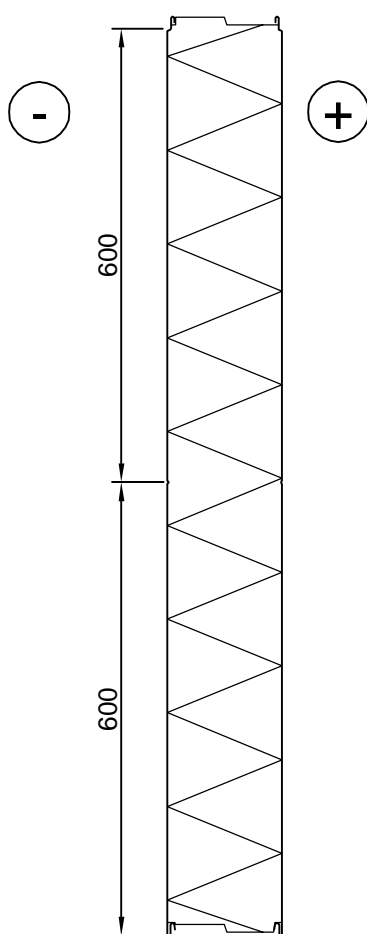


Contents of drawing

Sandwich panel SPA  
Rib R600 surface profiling

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

Available for external and internal facings.



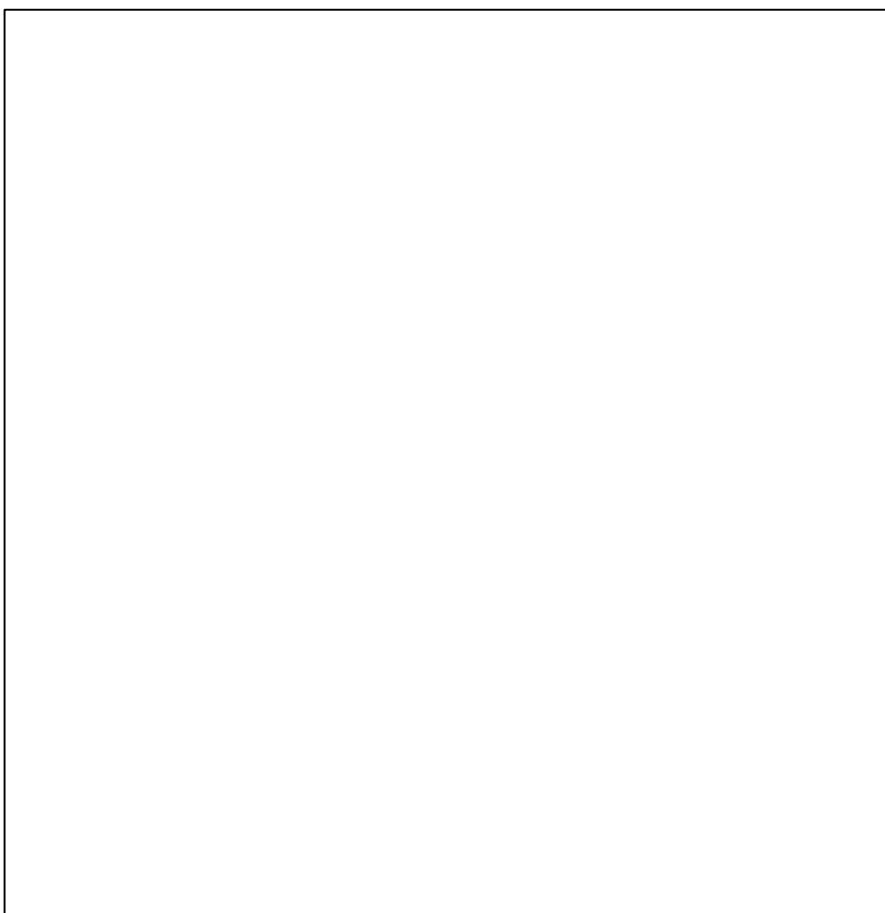
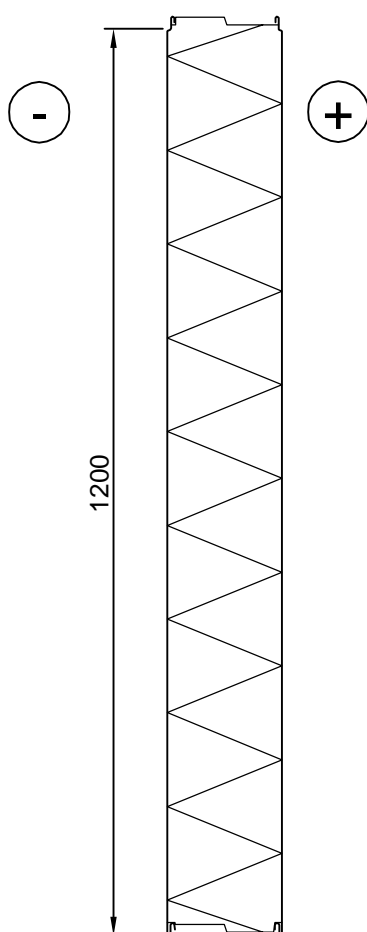


Contents of drawing

Sandwich panel SPA  
Smooth F surface (no profiling)

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

Available for external and internal facings.



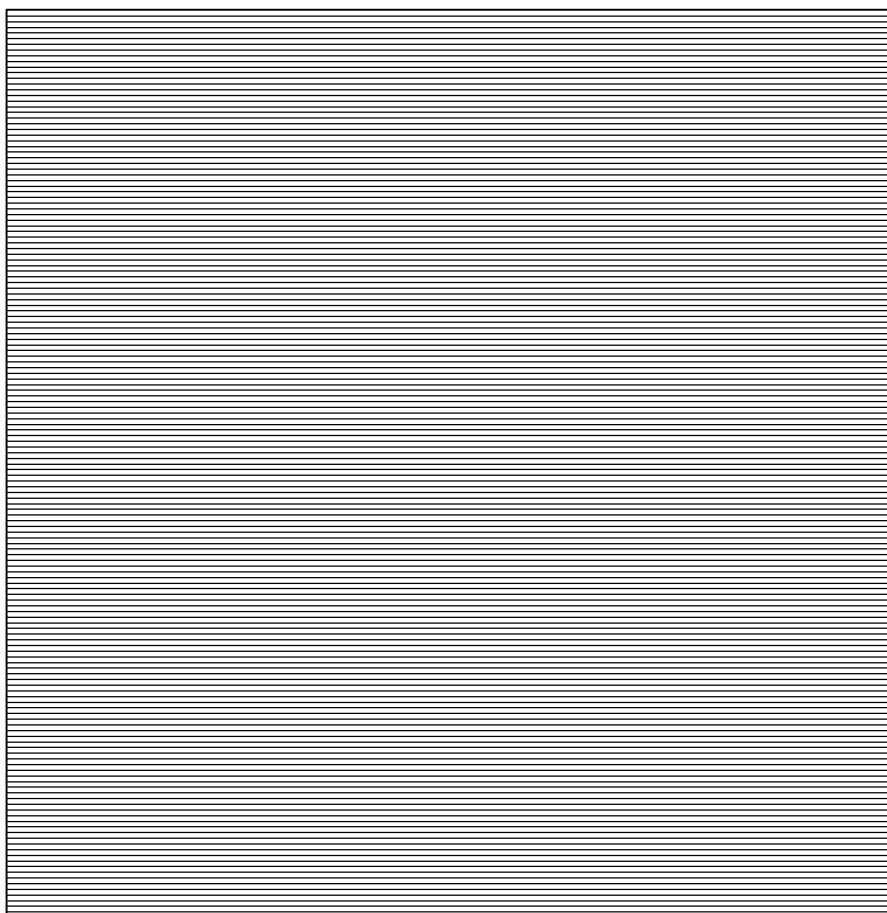
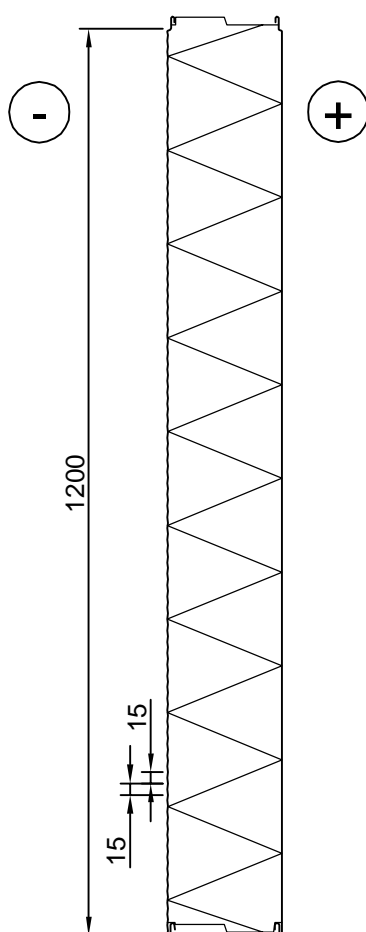


Contents of drawing

Sandwich panel SPA  
M15 (Micro) surface profiling

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

Available for external and internal facings.





Contents of drawing

Sandwich panel SPA  
L50 (Linear) surface profiling

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

Available for external and internal facings.

