
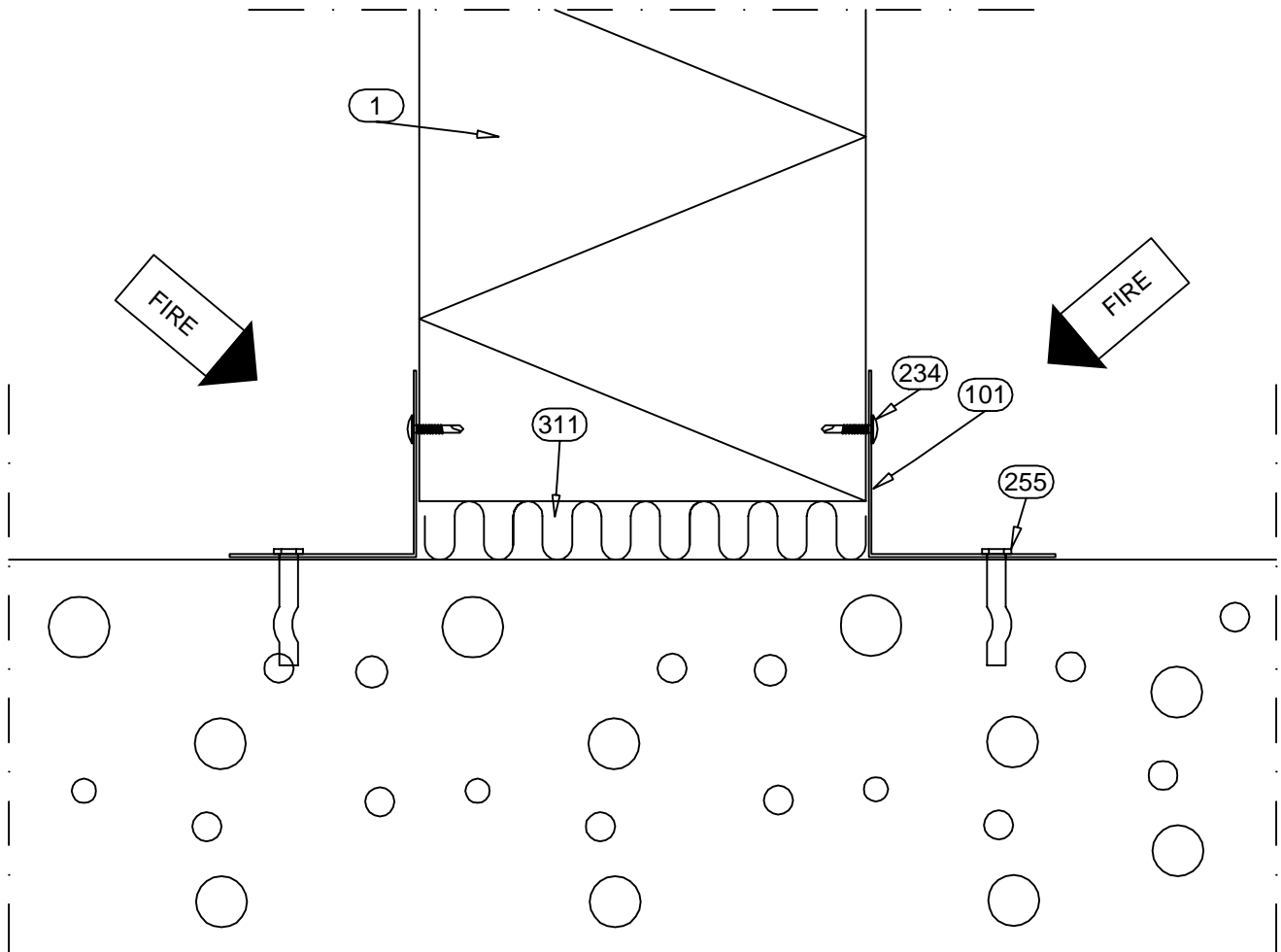


Drawing nr.	Contents of drawing	Date	Rev. date
SPA30-FIRE-1E-EN	Fastening to floor, vertical or horizontal installation	17.12.2012	
SPA31-FIRE-1E-EN	Vertical joint, horizontal installation	17.12.2012	16.05.2016
SPA31-FIRE-2E-EN	Vertical joint, horizontal installation	17.12.2012	16.05.2016
SPA31-FIRE-3E-EN	Vertical joint, horizontal installation	17.12.2012	16.05.2016
SPA32-FIRE-1E-EN	Corner, vertical installation	17.12.2012	
SPA32-FIRE-2E-EN	Corner, horizontal installation	17.12.2012	16.05.2016
SPA33-FIRE-1E-EN	Fastening to roof, horizontal installation	17.12.2012	16.05.2016
SPA33-FIRE-2E-EN	Fastening to roof, vertical installation	17.12.2012	26.01.2017
SPA34-FIRE-1E-EN	Fireproof door, vertical section	23.01.2017	
SPA34-FIRE-2E-EN	Fireproof door, horizontal section	23.01.2017	

City sector	Block	Site/Reg. nr.	File nr.		
Building type		Drawing type			Nr.
Building, Name and address		Contents of drawing			Scale
 Ruukki Construction Oy Vimpelintie 661 FI - 62900 ALAJÄRVI FINLAND		Sandwich panel SPA compartment details Principle details			
Date	Designer	Work nr.	Work nr.	Drw. nr.	Rev.
17.12.2012					
Drawn by	Checked				
Ruukki					

Date 17.12.2012	Rev. date .	Work nr. .	Drawing nr. SPA30-FIRE-1E-EN	Rev. .
Drawn by Ruukki	Rev. .			
Scale 1:2,5	Building .		File nr. SPA30-FIRE-1E-EN.dwg	

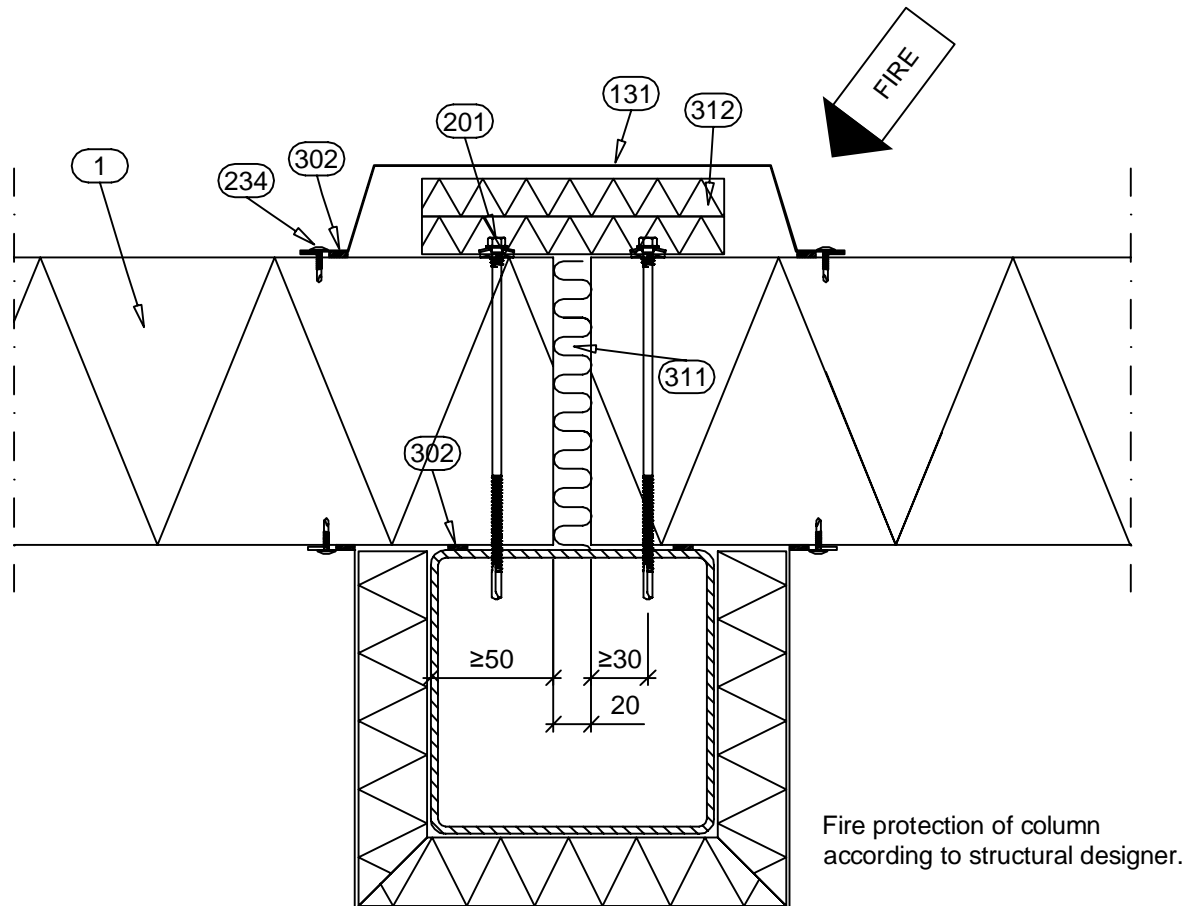


- 001. Sandwich panel SPA, vertical or horizontal installation
- 101. /EA1FC1/ Fastening corner flashing
- 234. Flashing screw c/c 300 mm
- 255. Spike-fastener
- 311. /EAWS30565/ Mineralwool
  
- Ruukki's delivery

Date 17.12.2012	Rev. date 16.05.2016	Work nr.	Drawing nr. SPA31-FIRE-1E-EN A	Rev.
Drawn by Ruukki	Rev. A	.		
Scale 1:4	Building		File nr. SPA31-FIRE-1E-EN.dwg	

Fire protection wool FPS 17, thickness (mm)

Structure	EI60	EI90	EI120	EI180	EI240
Wall	-	20	20	30	50
Ceiling	20	20	30	n/a	n/a



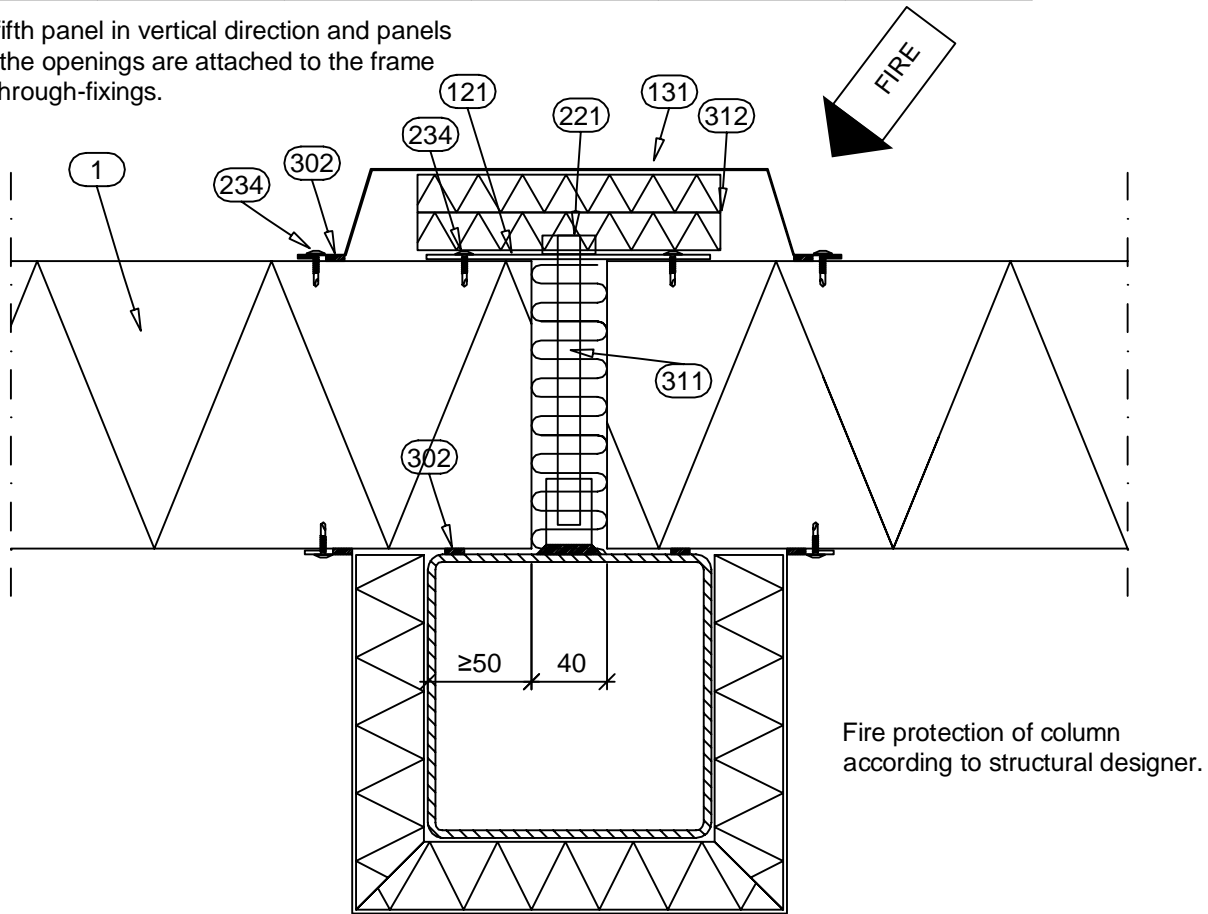
- 001. Sandwich panel SPA, horizontal installation
- 131. /EA1R18/ Cover flashing
- 201. Self-drilling panel screw, washer with sealing
- 234. Flashing screw c/c 300 mm
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
- 312. /EAFW206001200/ Fire protection wool

Ruukki's delivery

Date 17.12.2012	Rev. date 16.05.2016	Work nr. .	Drawing nr. SPA31-FIRE-2E-EN A	Rev. A
Drawn by Ruukki	Rev. A		File nr. SPA31-FIRE-2E-EN.dwg	
Scale 1:4	Building .			

Fire protection wool FPS 17, thickness (mm)					
Structure	EI60	EI90	EI120	EI180	EI240
Wall	-	20	20	30	50
Ceiling	20	20	30	n/a	n/a

Every fifth panel in vertical direction and panels above the openings are attached to the frame using through-fixings.



Fire protection of column according to structural designer.

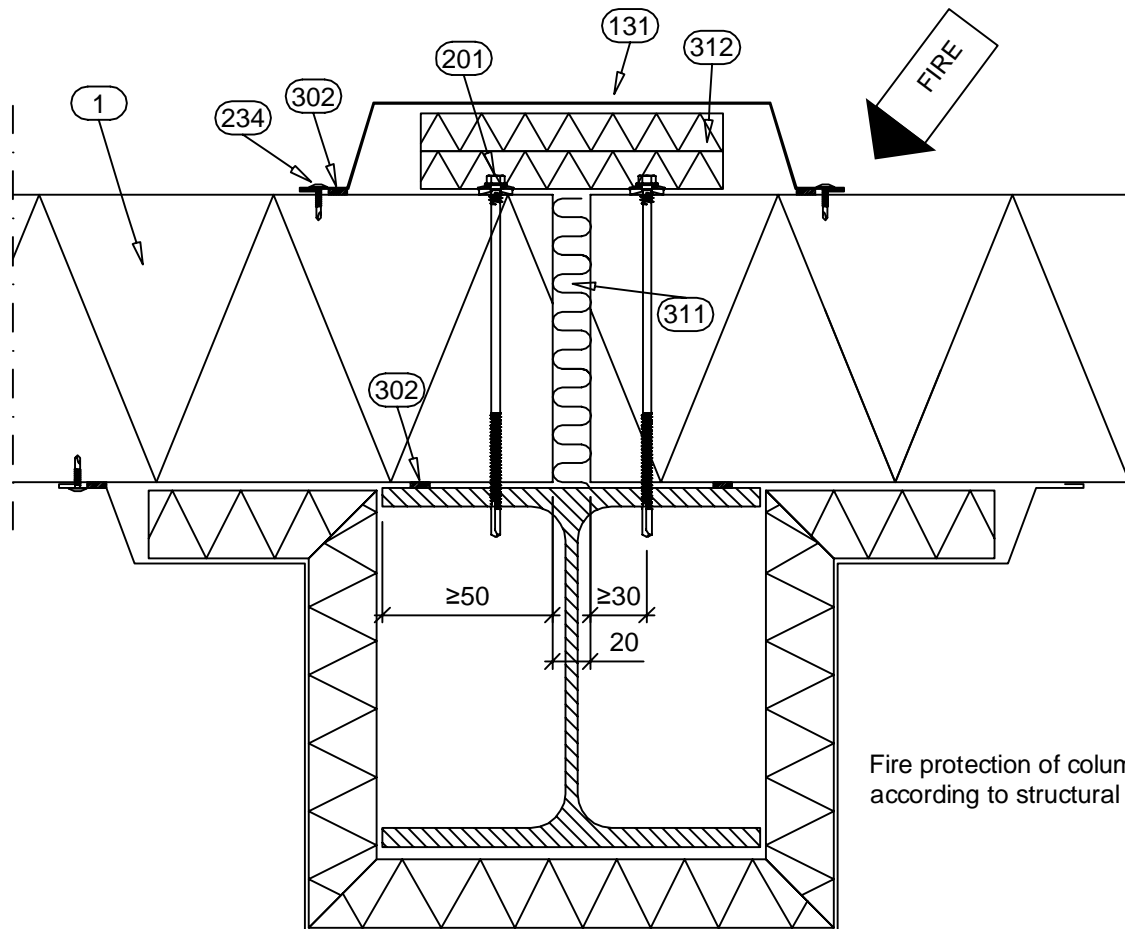
- 001. Sandwich panel SPA, horizontal installation
- 121. /EA6FP\_\_\_/ Fastening plate
- 131. /EA1R18/ Cover flashing
- 221. Internal thread socket + hex bolt
- 234. Flashing screw c/c 300 mm
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
- 312. /EAFW206001200/ Fire protection wool

Ruukki's delivery

Date 17.12.2012	Rev. date 16.05.2016	Work nr.	Drawing nr. SPA31-FIRE-3E-EN A	Rev.
Drawn by Ruukki	Rev. A			
Scale 1:4	Building		File nr. SPA31-FIRE-3E-EN.dwg	

Fire protection wool FPS 17, thickness (mm)

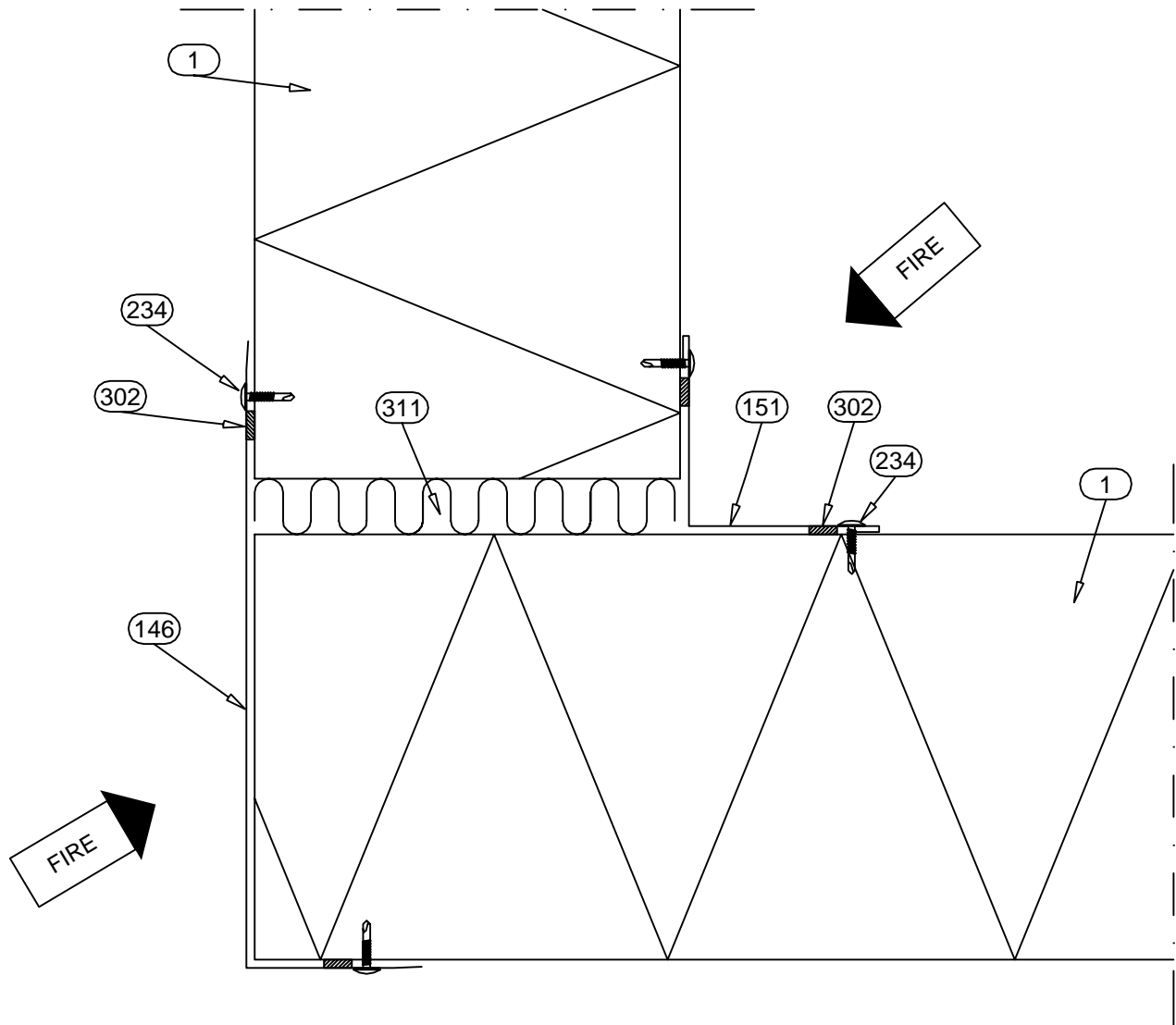
Structure	EI60	EI90	EI120	EI180	EI240
Wall	-	20	20	30	50
Ceiling	20	20	30	n/a	n/a



- 001. Sandwich panel SPA, horizontal installation
- 131. /EA1R18/ Cover flashing
- 201. Self-drilling panel screw, washer with sealing
- 234. Flashing screw c/c 300 mm
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
- 312. /EAFW206001200/ Fire protection wool

Ruukki's delivery

Date 17.12.2012	Rev. date .	Work nr. .	Drawing nr. SPA32-FIRE-1E-EN	Rev. .
Drawn by Ruukki	Rev. .			
Scale 1:2,5	Building .		File nr. SPA32-FIRE-1E-EN.dwg	

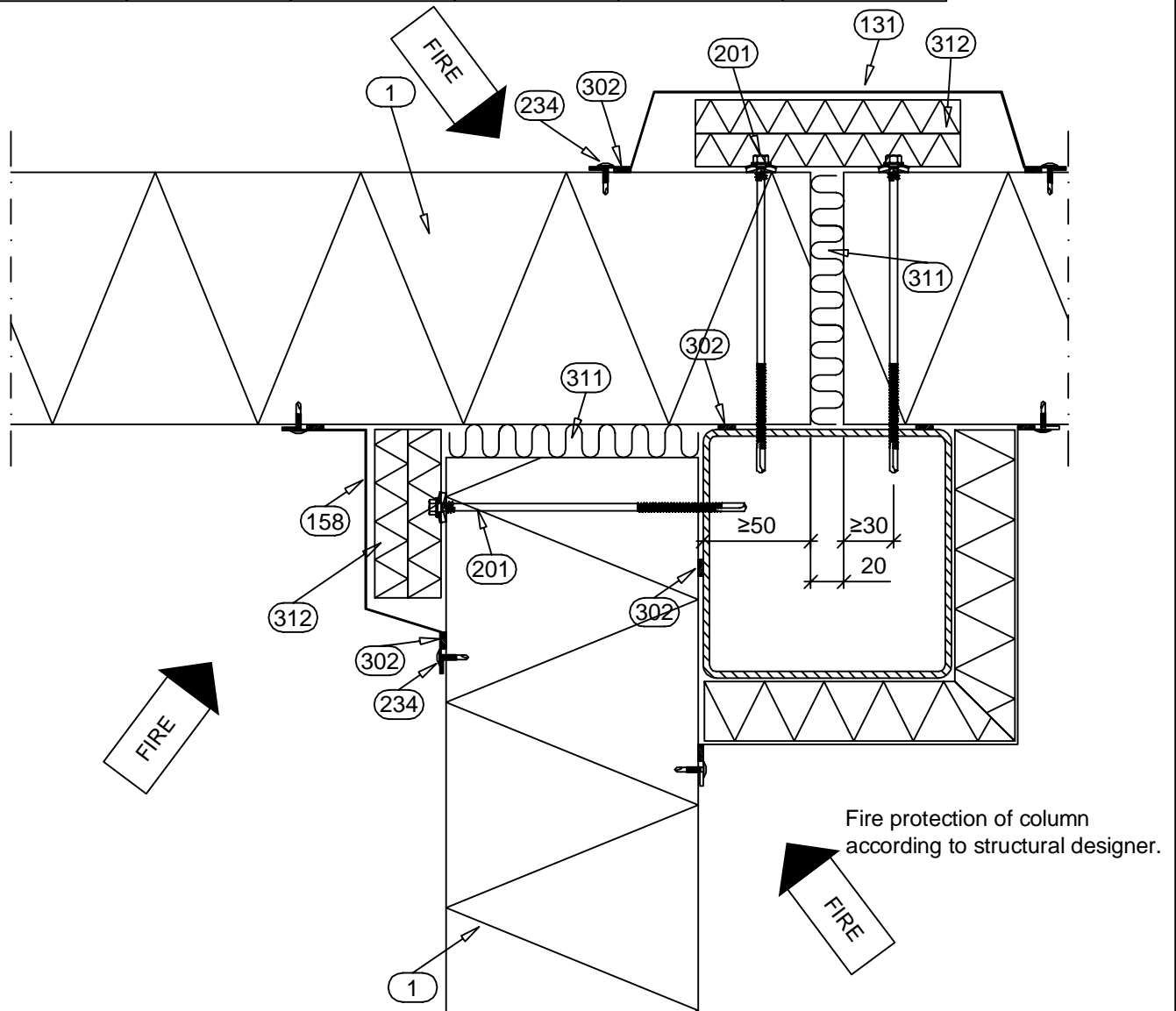


- 001. Sandwich panel SPA, vertical installation
- 146. /EA1EC9-\_\_\_/ External corner flashing
- 151. /EA1IC2/ Internal corner flashing
- 234. Flashing screw c/c 300 mm
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
  
- Ruukki's delivery

Date 17.12.2012	Rev. date 16.05.2016	Work nr.	Drawing nr. SPA32-FIRE-2E-EN A	Rev.
Drawn by Ruukki	Rev. A			
Scale 1:4	Building		File nr. SPA32-FIRE-2E-EN.dwg	

Fire protection wool FPS 17, thickness (mm)

Structure	EI60	EI90	EI120	EI180	EI240
Wall	-	20	20	30	50
Ceiling	20	20	30	n/a	n/a

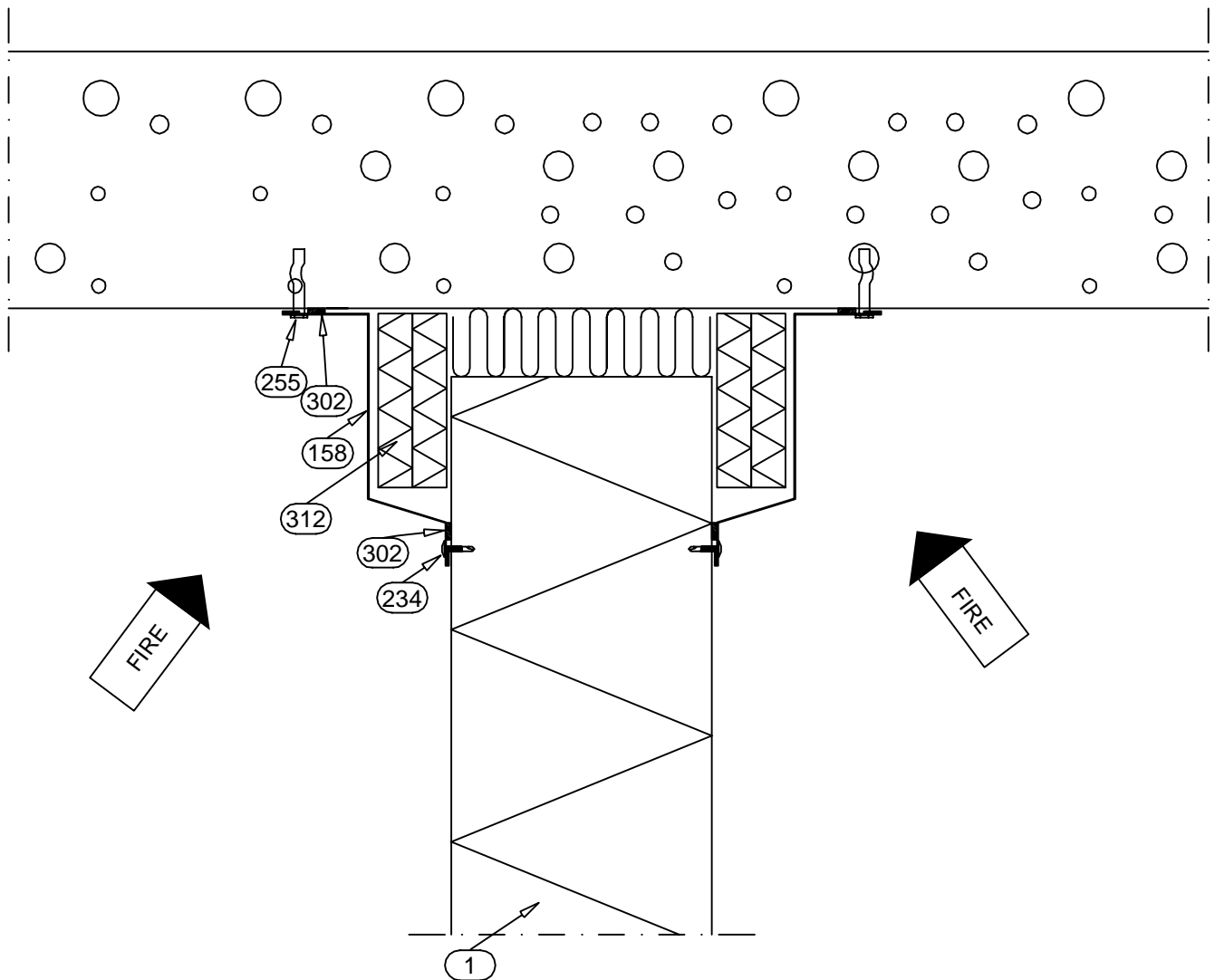


- 001. Sandwich panel SPA, horizontal installation
- 131. /EA1R18/ Cover flashing
- 158. /EA1R23/ Cover flashing
- 201. Self-drilling panel screw, washer with sealing
- Ruukki's delivery
- 234. Flashing screw c/c 300 mm
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
- 312. /EAFW206001200/ Fire protection wool

Date 17.12.2012	Rev. date 16.05.2016	Work nr.	Drawing nr. SPA33-FIRE-1E-EN A	Rev.
Drawn by Ruukki	Rev. A	.		
Scale 1:4	Building		File nr. SPA33-FIRE-1E-EN.dwg	

Fire protection wool FPS 17, thickness (mm)

Structure	EI60	EI90	EI120	EI180	EI240
Wall	-	20	20	30	50
Ceiling	20	20	30	n/a	n/a



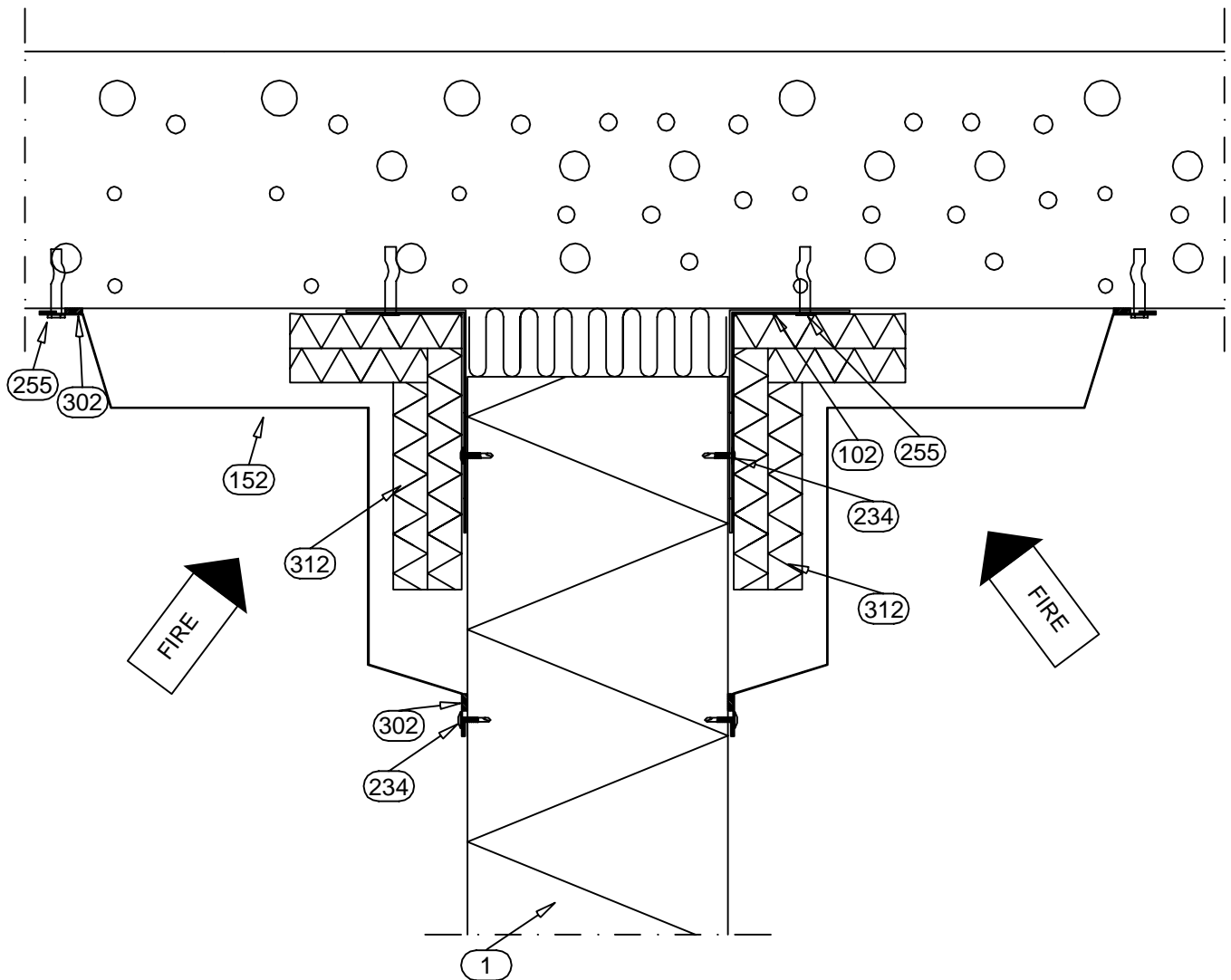
- 001. Sandwich panel SPA, horizontal installation
- 158. /EA1R23/ Cover flashing
- 234. Flashing screw c/c 300 mm
- 255. Spike-fastener
- Ruukki's delivery
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
- 312. /EAFW206001200/ Fire protection wool



Date 17.12.2012	Rev. date 26.01.2017	Work nr.	Drawing nr. SPA33-FIRE-2E-EN B	Rev.
Drawn by Ruukki	Rev. B			
Scale 1:4	Building		File nr. SPA33-FIRE-2E-EN.dwg	

Fire protection wool FPS 17, thickness (mm)

Structure	EI60	EI90	EI120	EI180	EI240
Wall	-	20	20	30	50
Ceiling	20	20	30	n/a	n/a



- 001. Sandwich panel SPA, horizontal installation
- 102. /EA1FC5/ L-corner
- 152. /EA1R21/ Roof flashing
- 234. Flashing screw c/c 300 mm
- Ruukki's delivery
- 255. Spike-fastener
- 302. /EA3SS410/ Sealing band
- 311. /EAWS30565/ Mineral wool
- 312. /EAFW206001200/ Fire protection wool

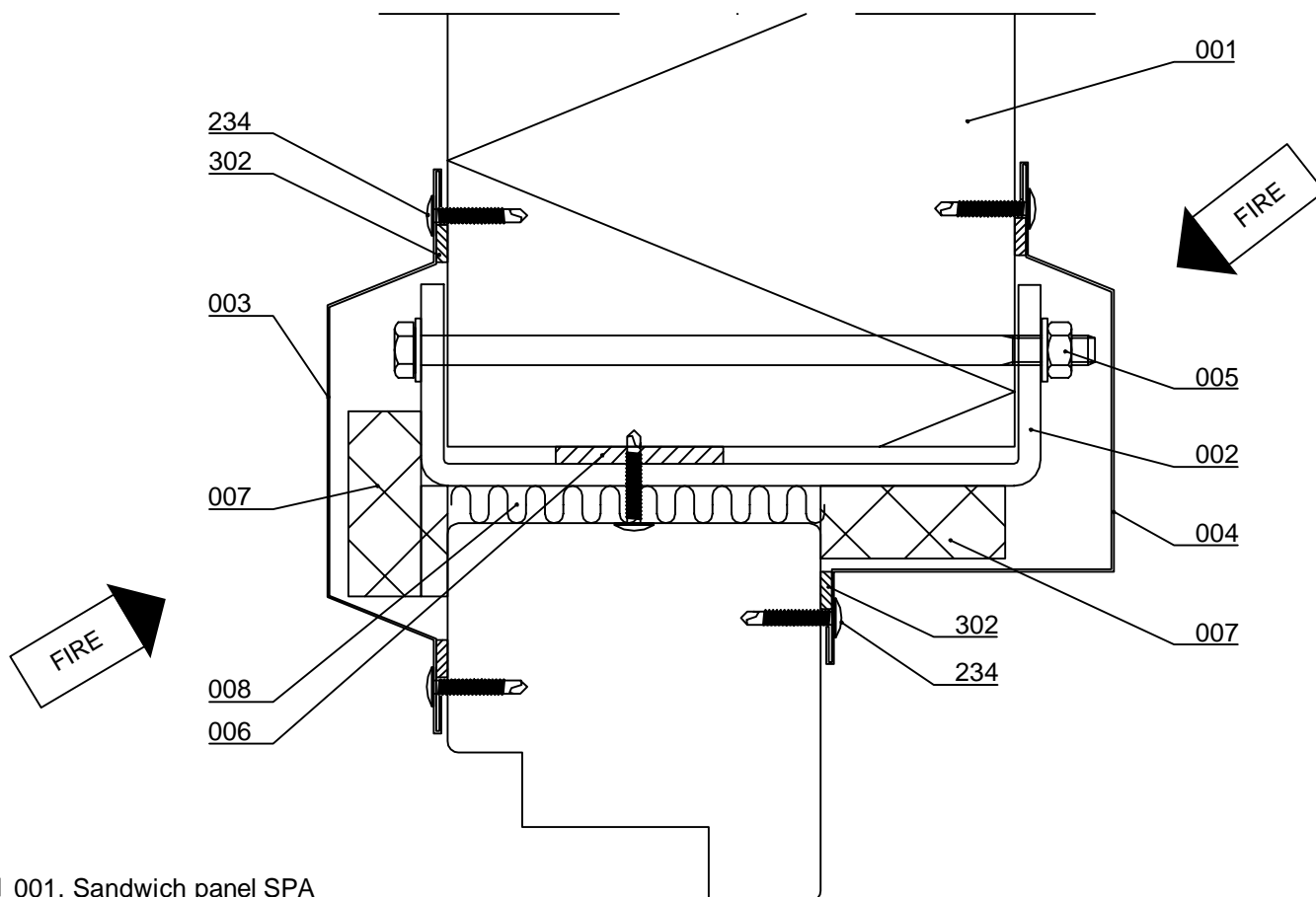
Sandwich panel compartment details,  
horizontal or vertical installation  
Fireproof door, vertical section

Date 23.01.2017	Rev. date	Work nr.	Drawing nr. SPA34-FIRE-1E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building	File nr.	

Note! This detail apply to 12x21 door. For larger openings, there must be frame which is supported by load bearing frame. Door frame must meet the wall fire resistance requirement.

Door opening must be reinforced with 6 mm U-profile around. Corners, upper part and side parts must be attached together with bolt M8.

Door fastening according to door manufacturers instruction. The gap between door and U-profile must be insulated with fireproof mineral wool.



- 001. Sandwich panel SPA
- 002. U-profile, t = 6 mm S355
- 003. Cover flashing, t = 0.6 mm, according to project
- 004. Cover flashing, t = 0.6 mm, according to project
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip
- 005. Bolt M8 8.8 k400
- 006. Expanding fire sealing
- 007. Fire protection wool
- 008. Fire protection wool

Ruukki's delivery



Contents of drawing

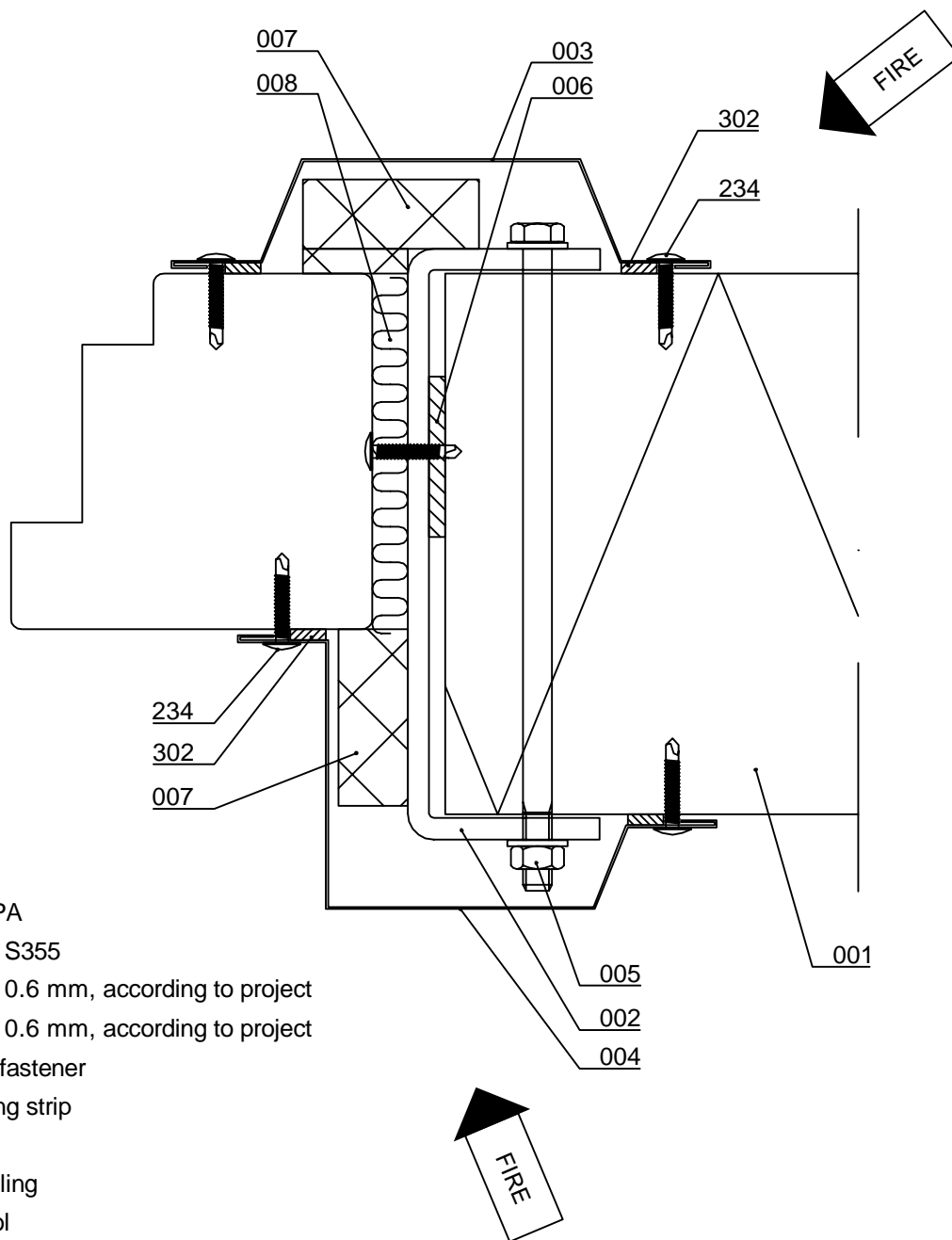
Sandwich panel compartment details,  
horizontal or vertical installation  
Fireproof door, horizontal section

Date 23.01.2017	Rev. date	Work nr.	Drawing nr. SPA34-FIRE-2E-EN
Drawn by Ruukki	Rev.		
Scale 1:2	Building		File nr.

Note! This detail apply to 12x21 door. For larger openings, there must be frame which is supported by load bearing frame. Door frame must meet the wall fire resistance requirement.

Door opening must be reinforced with 6 mm U-profile around. Corners, upper part and side parts must be attached together with bolt M8.

Door fastening according to door manufacturers instruction. The gap between door and U-profile must be insulated with fireproof mineral wool.



- 001. Sandwich panel SPA
- 002. U-profile, t = 6 mm S355
- 003. Cover flashing, t = 0.6 mm, according to project
- 004. Cover flashing, t = 0.6 mm, according to project
- 234. Flat head flashing fastener
- 302. /EA3SS410/ Sealing strip
- 005. Bolt M8 8.8 k400
- 006. Expanding fire sealing
- 007. Fire protection wool
- 008. Fire protection wool

Ruukki's delivery

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