Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

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European Technical Assessment ETA-16/0938 of 31 July 2025

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	abs EI SLIDE
Product family to which the construction product belongs	Kit for closure system for conveyor systems
Manufacturer	abs Sicherungstechnik GmbH & Co. KG Robert-Koch-Straße 19b 55129 Mainz DEUTSCHLAND
Manufacturing plant	abs Sicherungstechnik GmbH & Co. KG Robert-Koch-Straße 19b 55129 Mainz DEUTSCHLAND
This European Technical Assessment contains	35 pages including 27 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	350022-01-1107
This version replaces	ETA-16/0938 issued on 27 April 2018

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Specific Part

1 Technical description of the product

This European technical approval applies for the closure system "abs EI SLIDE" for conveyor systems, hereinafter referred to as "abs EI SLIDE". The closure system can be designed to close vertically or horizontally in walls or in floors.

"abs EI SLIDE" primarily consists of the following components[1]:

- Single-leaf sliding leaf

  The approx. 62 mm thick sliding leaf consists of various calcium silicate boards (40 mm und 20 mm) which are secured with water glass adhesive.

  Embedded in the calcium silicate boards in the area of points of load application (amongst others fixing of rollers and guides) are steel hollow profiles (40 mm x 40 mm x 2 mm) located. The front sides are covered with 0.75 mm thick steel plates. At the lateral faces are angle profiles located. The components are connected by screw joints of the steel plate with the steel hollow profiles.

  In the case of continuous conveyors a sealing segment – consisting of a steel hollow profile ($t \geq 2$ mm) and covered with calcium silicate boards or exclusive consisting of calcium silicate boards - is placed at the closing edge of the sliding leaf.

  The sidewise depth of coverage of sliding leaf and wall as well as the coverage of sliding leaf and floor amounts to 90 mm. The upper depth of coverage of sliding leaf and wall amounts to 120 mm.

- Fixed panel with clearance for the conveyor

  The fixed panel consists of a core of mineral wool, covered with fire protection boards or steel hollow profiles, covered with fire protection boards or exclusive fire protection boards or masonry. It is secured to the wall via brackets or by direct screw connection.

  The clearance in the fixed panel is configured for the respective conveyor technology. Various intumescent materials are used in the necessary functional gaps. In the fixed panel may be inserted cable penetration seals (table 4)[1].

- Guide for the sliding leaf

  The guiding rails, running gears, running rails and wall fastenings have to be dimensioned according to dimension and weight of the sliding leaf. They must comply with the declarations of the drawings of the control plan[1] at least.

  - Vertical closing and tilting on a wall as well as horizontal closing on/under the floor and tilting on the floor

    Roller secured at the side of the sliding leaf are guided in a running rail which is fixed to the wall and on/under the floor, respectively. In the case of these sliding leafs a grip plate secured on the side of the sliding leaf or a slip in guide is necessary if the clear width of the closure is greater than 1.250 mm (wall) and 500 mm (on/under the floor) respectively.

    Closures, which are closing from bottom to top, have to be provided with additional devices against opening in the case of fire (e. g. a thermally actuated locking device)[1] if the sliding leaf exceeds a defined weight.

[1] The documents describing the structure of " abs EI SLIDE " in detail and the product specifications of the building materials used are deposited with DIBt.

- Horizontal closing on a wall

  The sliding leaf is suspended from the running rail by running gears. Alternatively, the running gears may be positioned at the bottom edge (upright mounted). The rail is secured to the wall using brackets. For the opposite guidance guide roller or guide plates with slide blocks are located at the bottom line of the closure and at the top edge of the closure, respectively.

  If the clear height of the closure is greater than 833 mm a grip plate or a sliding guide secured on the side of the sliding leaf is necessary.

- Seal system

  In the overlap of the sliding leaf and adjacent wall on the side of the sliding leaf facing the wall additional strips of an intumescent material are positioned.

  The closure in the conveyor technology area is sealed by sealing segments on the sliding leaf and the fixed panel.

  The sealing segments on the sliding leaf consist of a steel hollow profile (t ≥ 2 mm) covered with calcium silicate boards or exclusive calcium silicate boards. Strips of calcium silicate boards must be positioned in the gaps between conveyor technique and fixed panel. Strips of an intumescent material must be positioned in the residual gaps[1].

- Closing device (closing weight system)

  "abs EI SLIDE" shall be closed via stored mechanical energy (closing weight system, spring force, deadweight of the sliding leaf).

2 Specification of the intended use in accordance with the applicable European Assessment Document

In accordance with this European Technical Assessment, the "abs EI SLIDE" was assessed as closure to seal necessary openings of trackbound conveyors (see table 3) in internal walls (see table 1) and floors (see table 2).

When the cable penetration seals and the intumescent materials[1] are used, the verified ambient conditions (e.g. the category stated in TR024[2]) are to be observed.

"abs EI SLIDE" is not intended for passenger transportation. The normal position of the closure shall be opened or closed.

The "abs EI SLIDE" shall only be used if the following conditions apply:

- The normally-open closure (open in the normal position; closes in the event of a fire) shall be equipped with a hold-open system suitable for the closure – where applicable in conjunction with the national regulations.
- The normally-open closure, which cannot be opened from a fixed position (floor, pedestal etc.), is to be equipped with a drive to open the closure.
- It is to be ensured that the closing of the closure is not obstructed by conveyed goods or other objects.
- It is to be ensured that the closed closure cannot be damaged by conveyed goods or other objects.

[2] TR024 Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and Products

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the "abs EI SLIDE" of at least 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

NOTE: Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this document.

Table 1: Permitted dimensions of the clearance of the opening in internal walls

component (supporting construction) in which the closure can be installed[a)]	maximum fire resistance class[b)]	clearance of the component opening[c)]		
		maximum clear width	maximum clear height	maximum surface
high-density solid wall masonry or solid concrete with an overall density of ≥ 800 kg/m³ and a thickness ≥ 150 mm	E 120	2.500 mm	2.500 mm	6,25 m²
	EI_2 90 EI_1 60	3.750 mm	3.750 mm	9,38 m²
low-density solid wall aerated concrete with an overall density of ≥ 450 kg/m³ and a thickness ≥ 150 mm	E 120	2.500 mm	2.500 mm	6,25 m²
	EI_2 90 EI_1 60	3.750 mm	3.750 mm	9,38 m²
lightweight wall in accordance with annex 8, fastening version 3 thickness ≥ 100 mm	EI_2 90 EI_1 90	2.000 mm	2.000 mm	4,00 m²

a) Supporting construction to EN 1366-7[3], section 7.2 or EN 1363-1[4], section 7.2
b) Fire resistance class per EN 13501-2[5] in accordance with the Evaluation Report
c) Minimum dimension unrestricted

[3] EN 1366-7:2004 Fire resistance tests for service installations - Part 7: Conveyor systems and their closures
[4] EN 1363-1:1999 Fire resistance tests - Part 1: General requirements
[5] EN 13501-2:2007 Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services

Table 2: Permitted dimensions of the clearance of the opening in internal floors

component (supporting construction) in which the closure can be installed[a)]	maximum fire resistance class[b)]	clearance of the component opening[c)]		
		maximum clear width	maximum clear height	maximum surface
high-density solid floor masonry or solid concrete with an overall density of ≥ 800 kg/m³ and a thickness ≥ 150 mm	EI_2 90 EI_1 60	2.090 mm	2.090 mm	2,34 m²
low-density solid floor aerated concrete with an overall density of ≥ 450 kg/m³ and a thickness ≥ 150 mm	EI_2 90 EI_1 60	2.090 mm	2.090 mm	2,34 m²

a) Supporting construction to EN 1366-7[3], section 7.2 or EN 1363-1[4], section 7.2
b) Fire resistance class per EN 13501-2[5] in accordance with the Evaluation Report
c) Minimum dimension unrestricted

The conveyor tracks can be continuous or disconnected or disconnected while closing of the closure in the closing area of the sliding leaf.

For the sealing of pipe conveyors that are separated in the closing area, the sealing system according to Annex 27 for a fire resistance class up to EI 120 shall be used.

In order to seal the continuous conveyor technology, the sealing systems specified in table 3 can be used.

Table 3: Permitted sealing systems for the continuous conveyor technology[6]

sealing system for	minimum depth of the seal on the fixed panel	minimum depth of the seal at the sliding leaf	maximum fire resistance class of "abs EI SLIDE"
chain conveyor (annex 14) – steel profile[7] – aluminium profile	 175 mm 250 mm	 166 mm 241 mm	 EI 120 EI 90
roller conveyor (annex 15) – steel profile[7] – aluminium profile	 175 mm 250 mm	 166 mm 241 mm	 EI 120 EI 90
belt conveyor (annex 16) – steel profile[7] – aluminium profile	 175 mm 250 mm	 166 mm 241 mm	 EI 120 EI 90
crane runway (annex20) (steel profile)	 175 mm	 166 mm	 EI 120
container conveyor system (ann.17, 19) – steel profile or aluminium rack with separating cut	175 mm	166 mm	EI 120
electro-suspension track (annex 18) – steel profile or aluminium rack with separating cut	225 mm	217 mm	EI 90

6 see annex 14 to 26
7 or aluminium profiles with separating cut (≥ 2 mm)

sealing system for	minimum depth of the seal on the fixed panel	minimum depth of the seal at the sliding leaf	maximum fire resistance class of "abs EI SLIDE"
lifter (annex 21) – steel profile[7]	175 mm	166 mm	EI 120
gravity chute (annex 22) – steel profile[7]	175 mm	166 mm	EI 120
round belt (annex 23)	100 mm	87 mm	EI 120
paper conveyor (annex 24, 25)	300 mm	297 mm	EI 120
power & free (steel) (annex 26)	175 mm	166 mm	EI 120

Table 4: Permitted cable penetration seal

Cable penetration seal	fire resistance class	clearance of the opening in the fixed panel		
		maximum clear width	maximum clear height	maximum surface
Hensomastik 5 KS Viskos (ETA-15/0295)	EI 90	220mm	110 mm	0,0165 m^2
ZZ-Stein 200 NE (ETA-10/0431)	EI 90	220mm	110 mm	0,0165 m^2
ZZ-Brandschutzsilikon NE (ETA-13/0123)	EI 90	220mm	110 mm	0,0165 m^2
ZZ-Brandschutzschaum 2K NE (ETA-11/0206)	EI 90	220mm	110 mm	0,0165 m^2

Furthermore, the penetration of cables in continuous profiles in the area of the fixed panel is permitted (see test and control plan) provided that the relevant provisions for electrical installations are observed.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	**Performance**
Fire resistance (EN 13501-2)	see clause 2, table 1 to 4
Mechanical durability of self-closing (EN 13501-2)	Installation in walls – vertical closing: C5 – horizontal closing: C5 Installation in floors: C5
Reaction to fire (EN 13501-1)	see following table 5

Table 5: Reaction to fire of the used materials

component	material	class according to EN 13501-1
slider leaf, fixed panel	steel sheet	A1
	calzium silicate boards	A1
	gypsum boards	A1
	gypsum mortar	A1
	mineral fibre boards	at least class E
	water glass glue	A1
	knitted glass fabric	at least class E
guide	steel	A1
Seal system	intumescent material	at least class E
cable penetration seals	intumescent material	at least class E
Closing device	steel	A1
Fixing material	steel	A1

3.2 Hygiene, health and the environment (BWR 3)

No performance assessed.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 350022-01-1107, the applicable European legal act is: 1999/454/EG.

The system to be applied is: 1

In addition, with regard to e. g. reaction to fire of components and materials for products covered by this EAD the applicable European legal act is: 1999/454/EG.

The systems to be applied are: 1 / 3 / 4 (dependent on classes of reaction to fire)

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

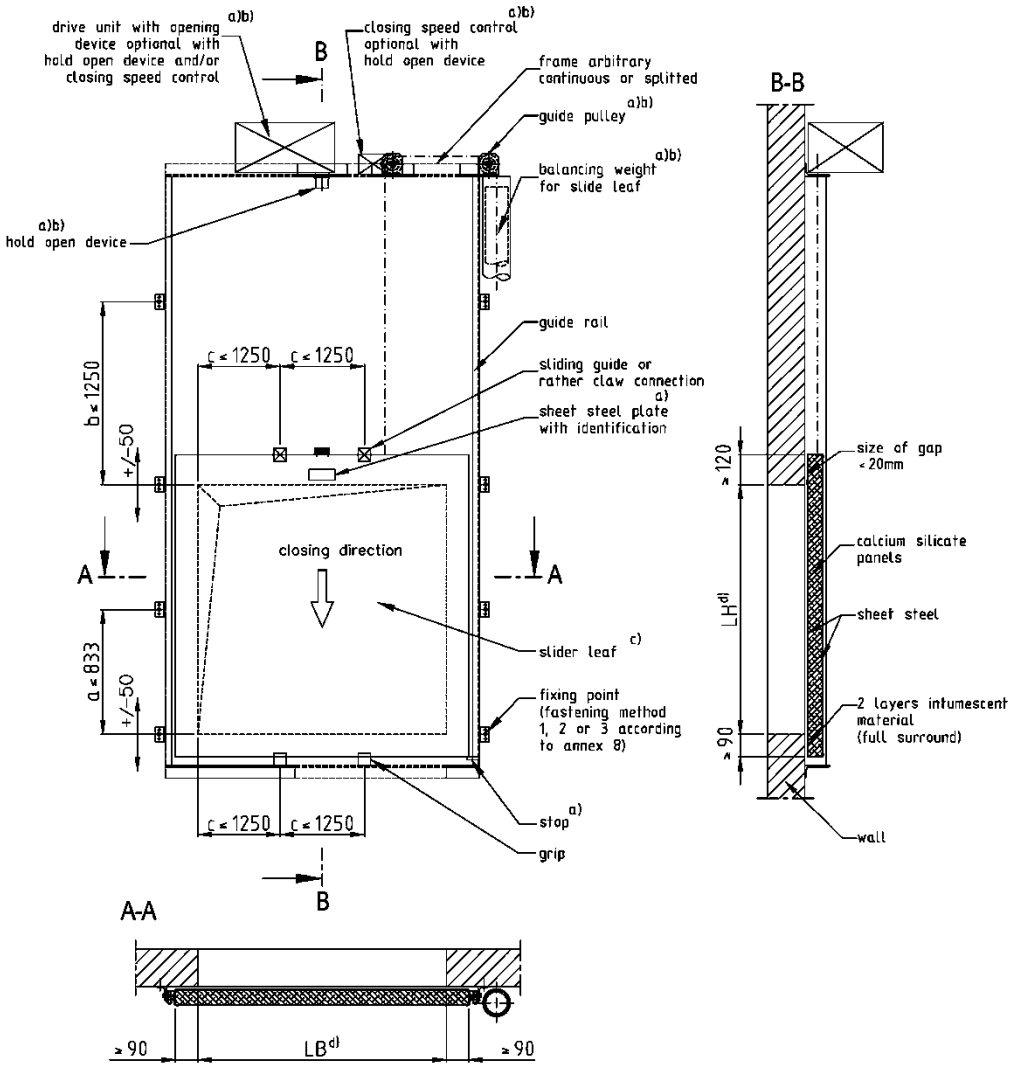
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

The manufacturer shall provide installation instructions and maintenance instructions for every "abs EI SLIDE". The maintenance instructions shall clearly indicate which work is to be performed to ensure that the installed closure system continues to perform its task after long-term use.
The manufacturer shall provide instructions on processing, packaging, transport, storage and use, maintenance and repair of the construction product.

Issued in Berlin on 31 July 2025 by Deutsches Institut für Bautechnik

Sylvia Panneck
Head of Section

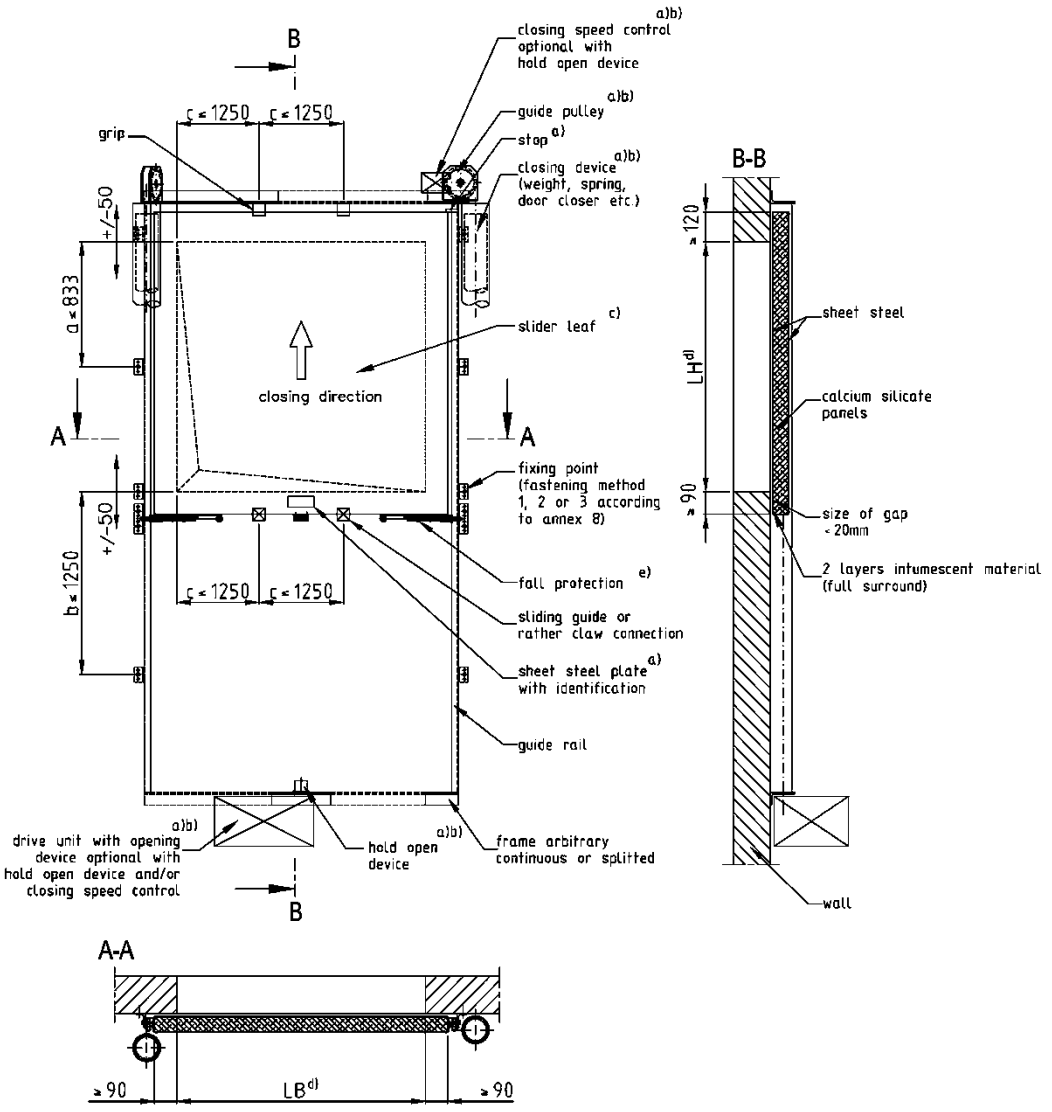
beglaubigt:
Biedermann



a) arbitrary position, number and design
b) optional
c) depiction of splitted conveyor technique, see additional annexes for examples of application of not splitted conveyor technique.
d) according to the table 1 of this ETA.

dimensions in mm

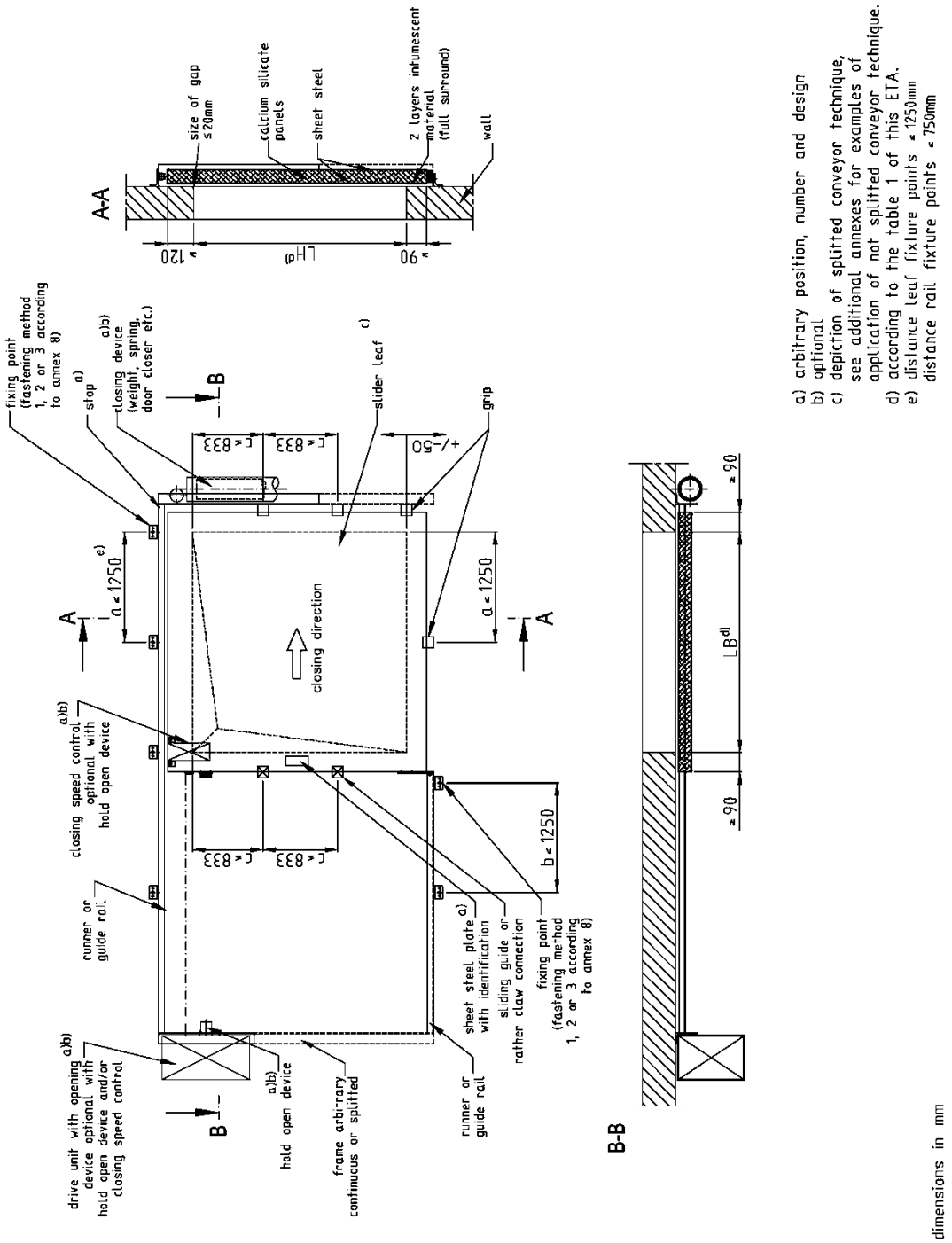
abs EI SLIDE	Annex 1
Overview – closing direction downwards form above Wall installation	



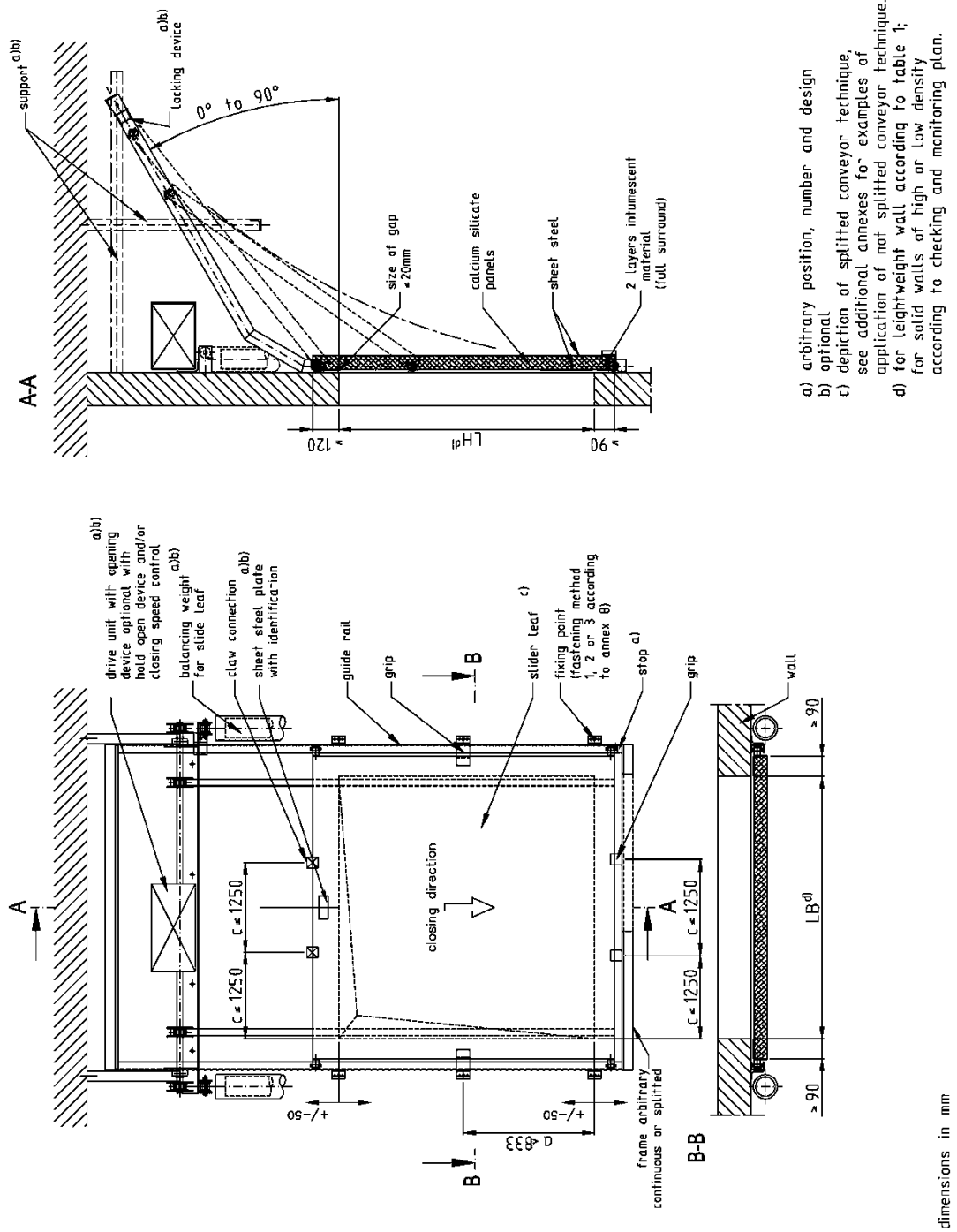
a) arbitrary position, number and design
b) optional
c) depiction of splitted conveyor technique, see additional annexes for examples of application of not splitted conveyor technique.
d) according to the table 1 of this ETA.
e) Requirement of the fall protection is regulated in the checking and monitoring plan.

dimensions in mm

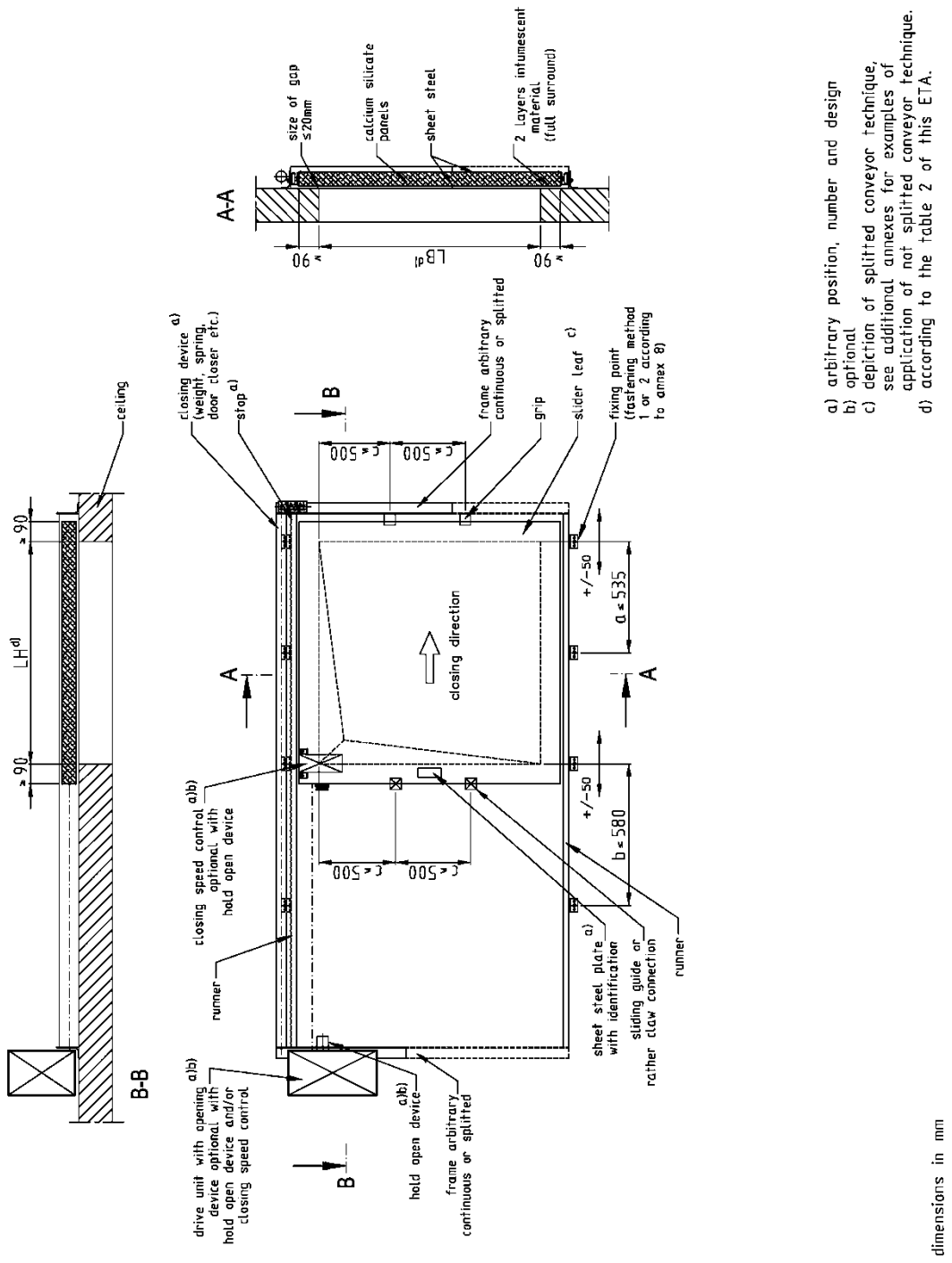
abs EI SLIDE	Annex 2
Overview – closing direction upwards from below Wall installation	



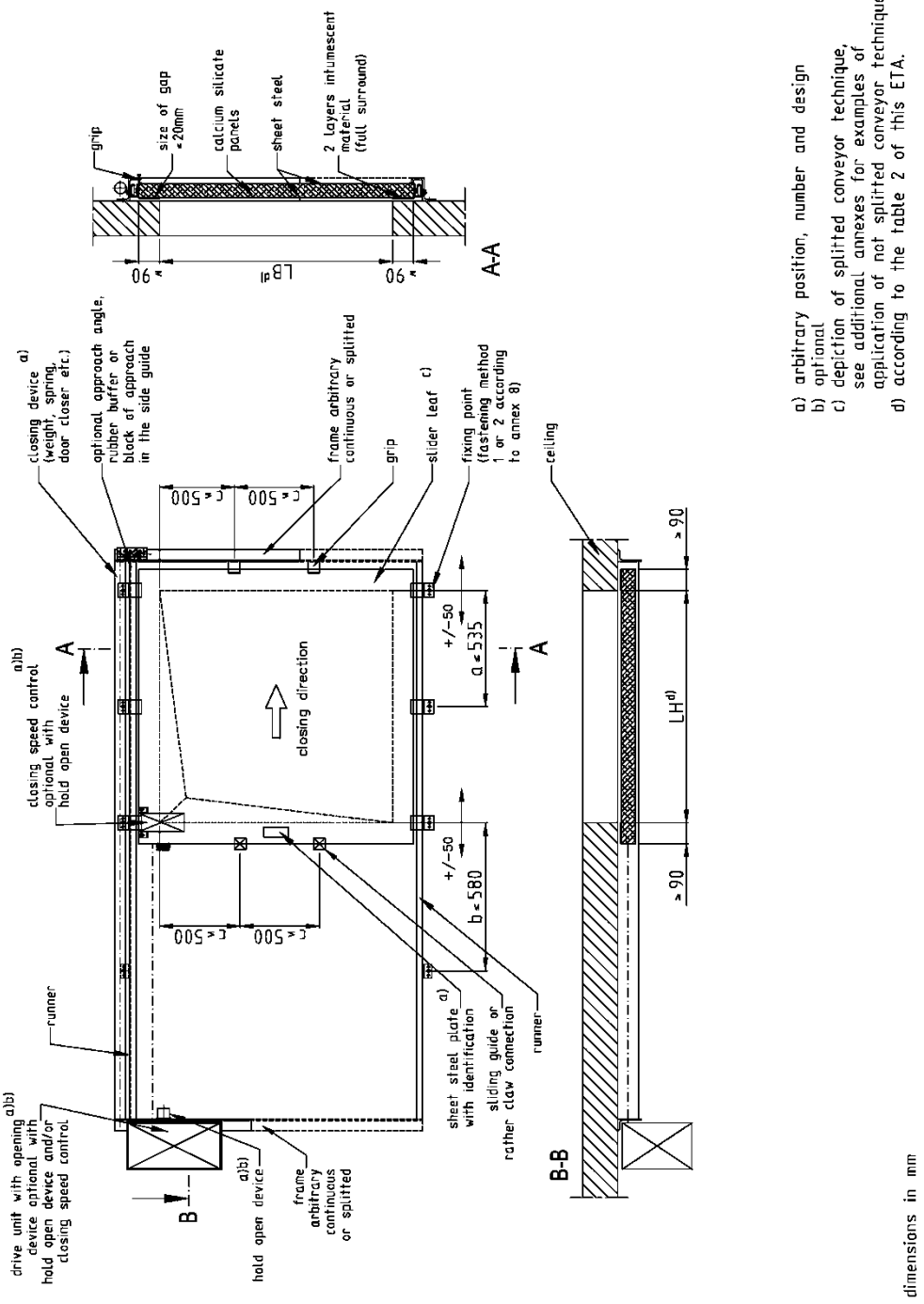
abs EI SLIDE	Annex 3
Overview – horizontal closing direction Wall installation	



abs EI SLIDE	Annex 4
Overview – closing direction tilting on the wall downwards from above (maximum allowable slider leaf weight: 285 kg) Wall installation	



abs EI SLIDE	Annex 5
Overview – horizontal closing direction On-floor installation	



abs EI SLIDE	Annex 6
Overview – horizontal closing direction+ Installation beneath the ceiling	

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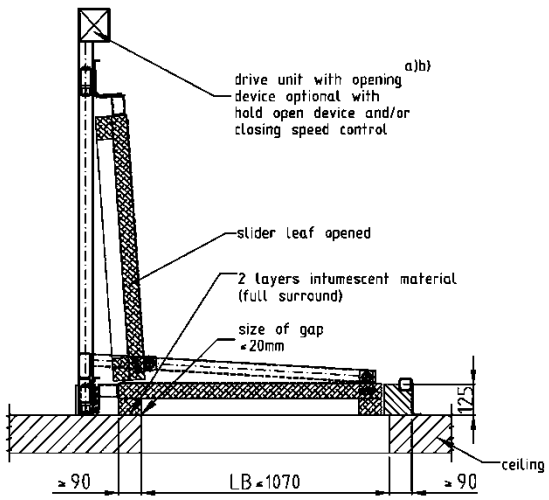
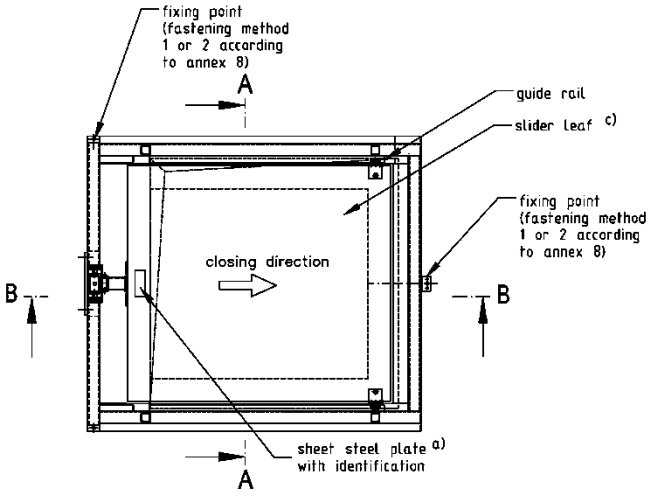
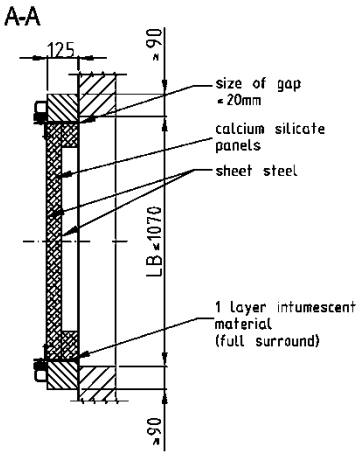
B-B





A-A



a) arbitrary position, number and design
b) optional
c) depiction of splitted conveyor technique, see additional annexes for examples of application of not splitted conveyor technique.

dimensions in mm

abs EI SLIDE	Annex 7
Overview – closing direction tilting on the floor (maximum allowable slider leaf weight: 85 kg) Floor installation	

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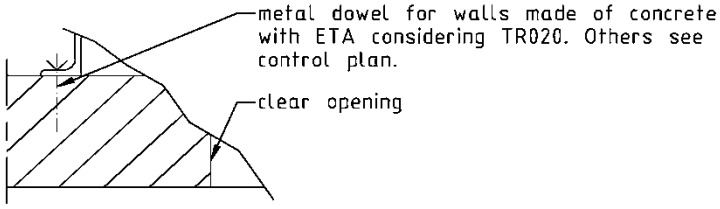
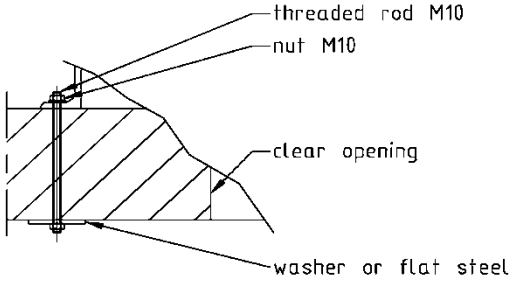
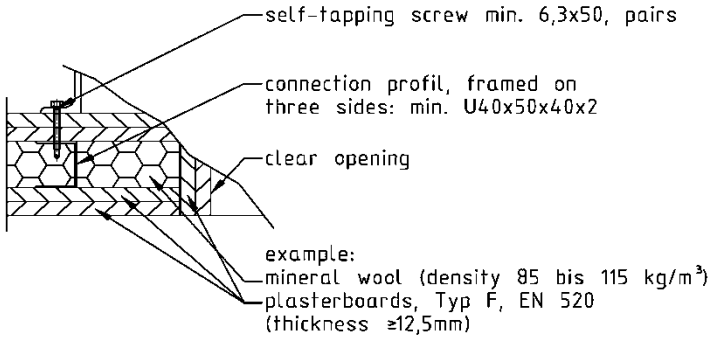
fastening method 1
(attachment to solid walls and ceilings of high density, and solid walls and on solid ceilings of low density):



fastening method 2
(attachment to solid walls and on/under solid ceilings of high density and low density):



fastening method 3
(Lightweight plasterboard faced steel stud partition EI90):



abs EI SLIDE	Annex 8
Types of connection to the bordering component Fastening methods	

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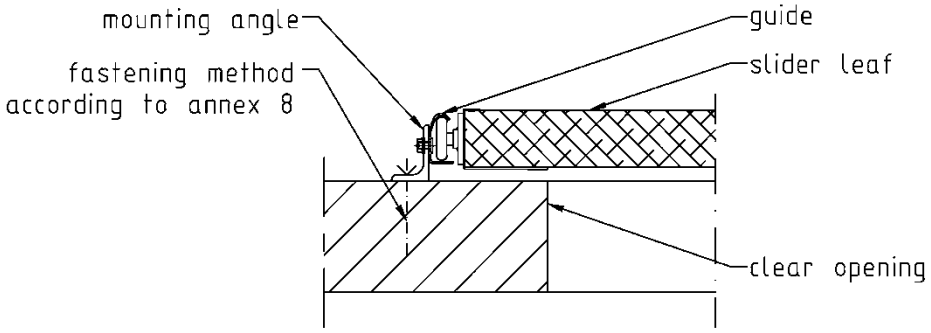
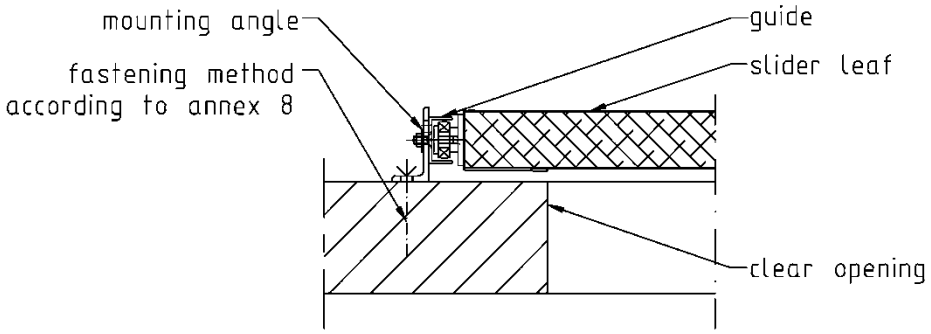
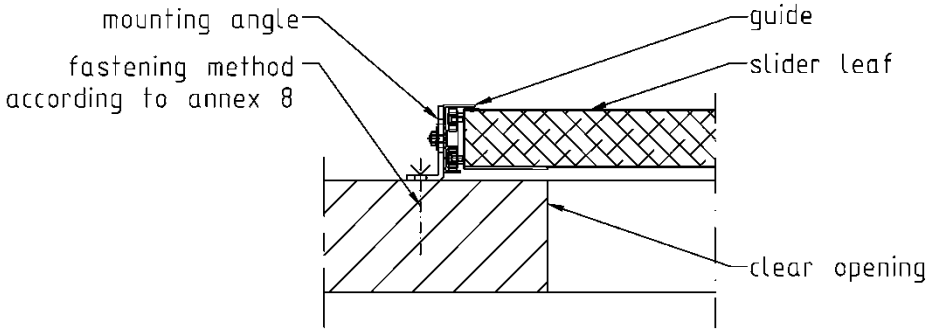
variant 1:



variant 2:

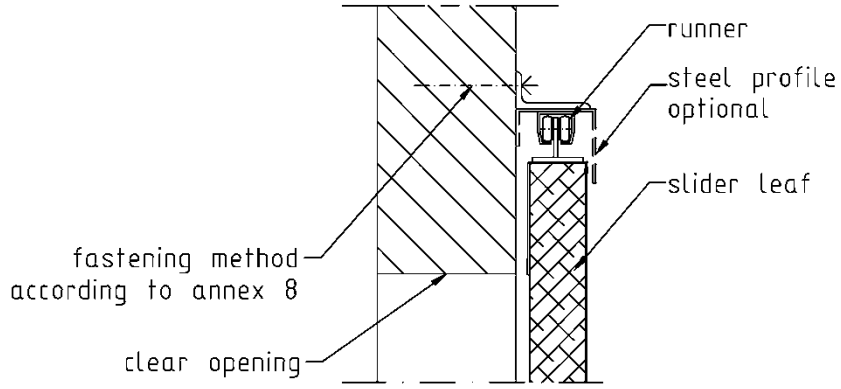


variant 3:

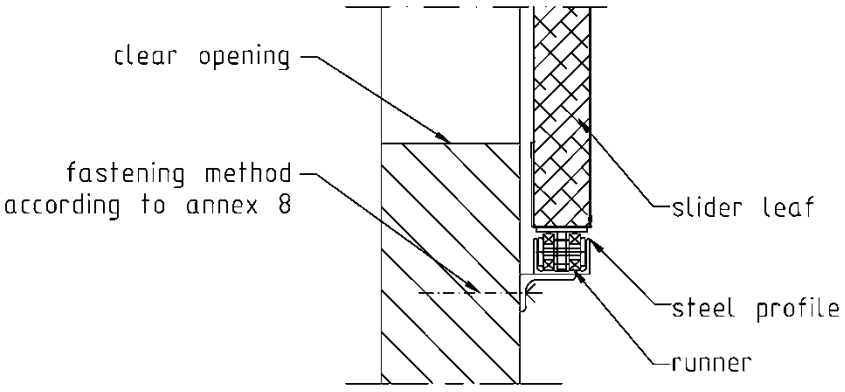


abs EI SLIDE	Annex 9
Types of connection to the bordering component Vertical guide Wall installation	

variant 1: hanging slider leaf



variant 2: standing slider leaf



abs EI SLIDE	Annex 10
Connection to the bordering component, horizontal closing direction, wall installation - variant 1: hanging slider leaf (maximum weight of the slider leaf acc. HELM-rail) - variant 2: standing slider leaf (maximum weight of the slider leaf: 285 kg)	

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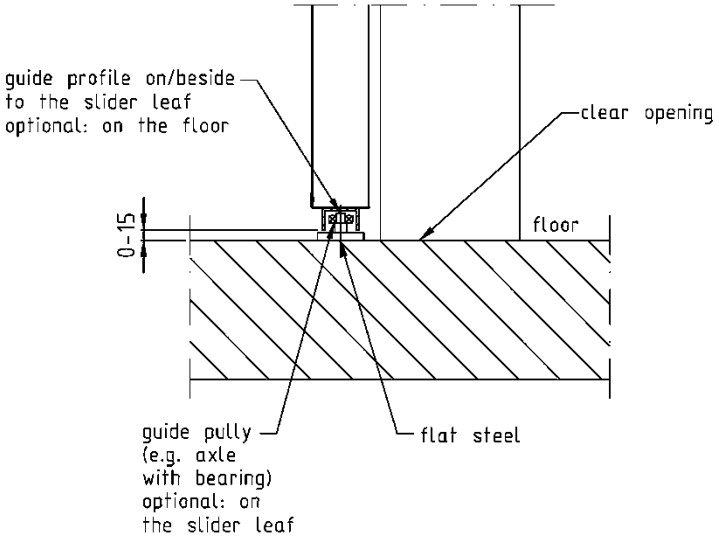
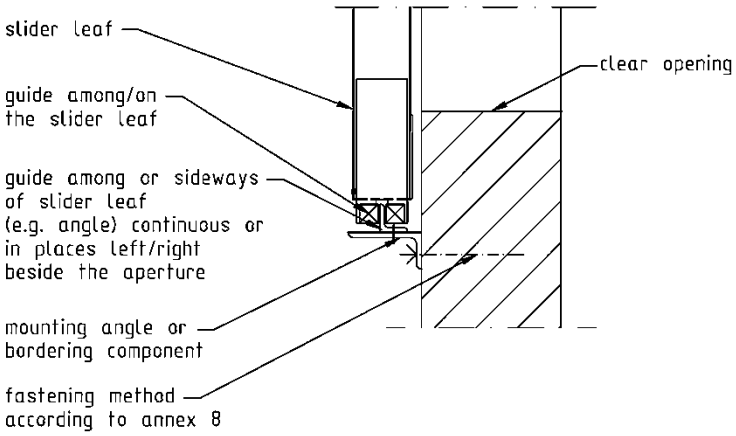
variant 1:



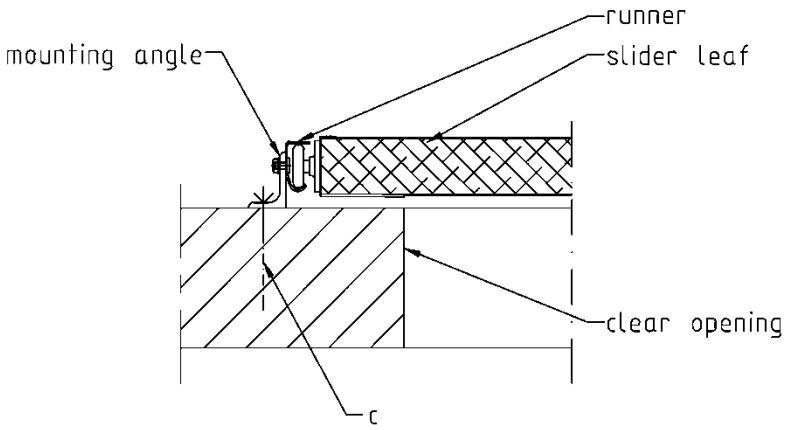
variant 2:

for installation in elevated position

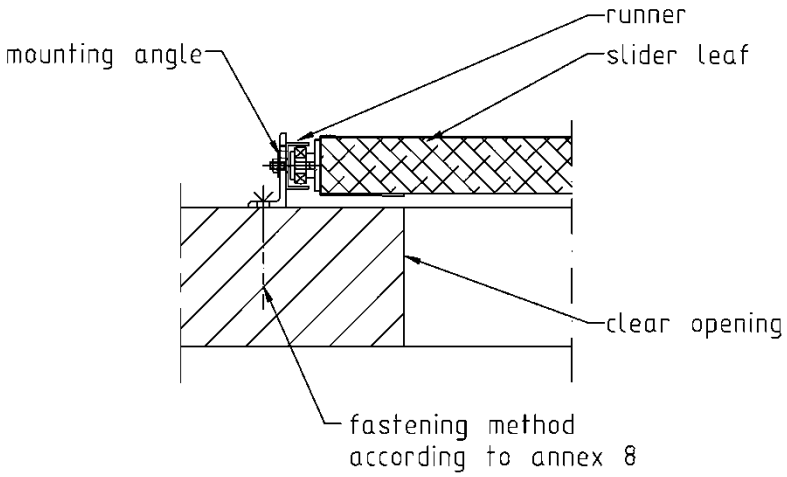


abs EI SLIDE	Annex 11
Types of connection to the bordering component Guide rails below and in elevated position Wall installation	

variant 1:

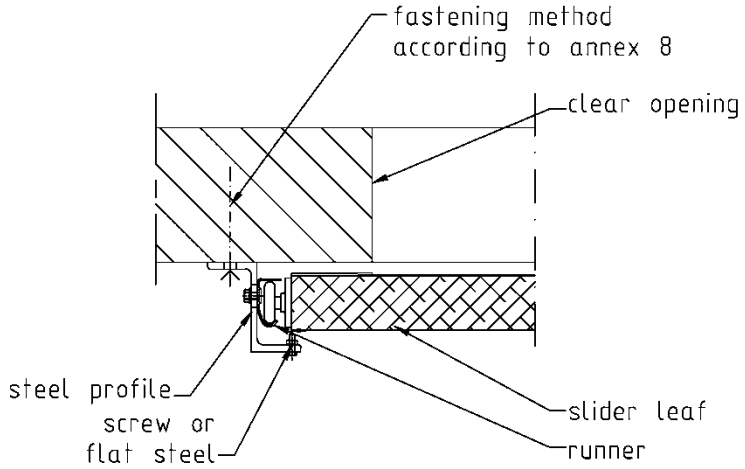


variant 2:

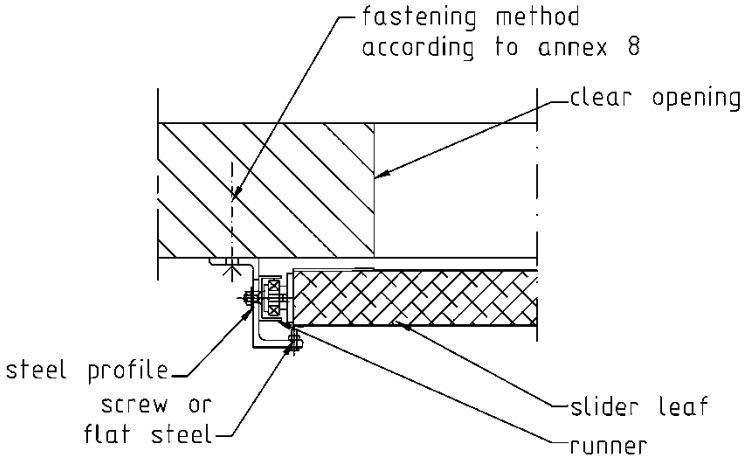


abs EI SLIDE	Annex 12
Types of connection to the bordering component Running rail On-floor installation	

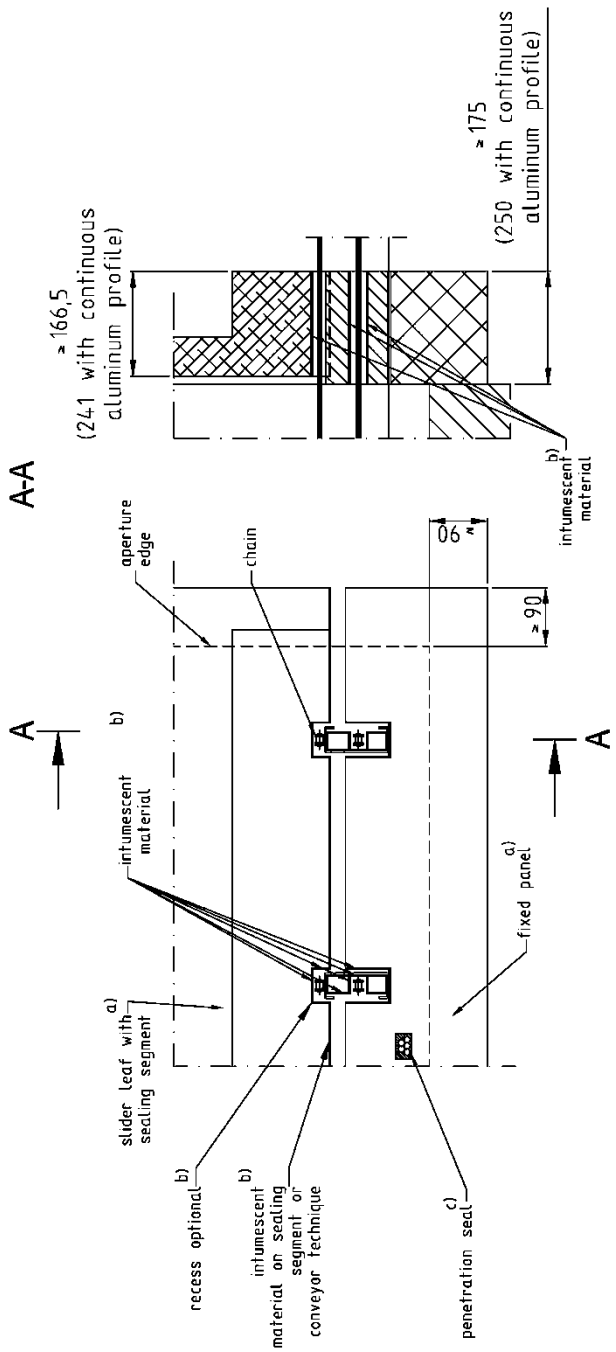
variant 1:



variant 2:



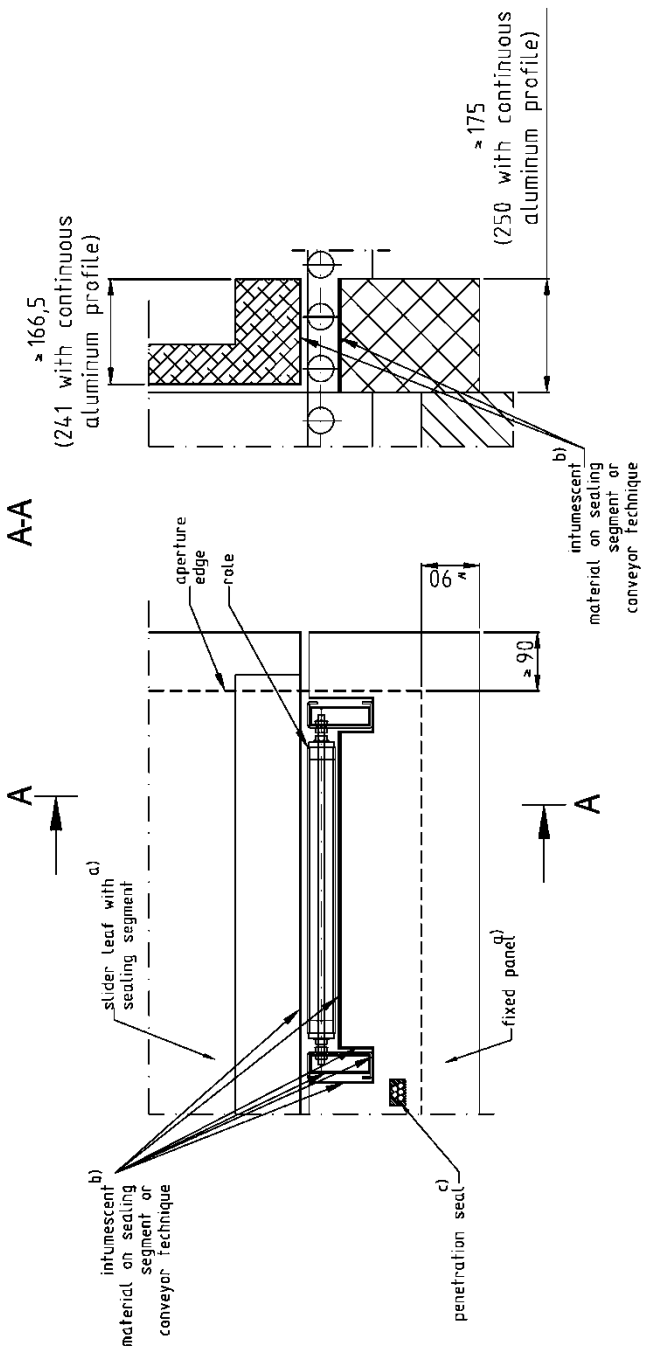
abs EI SLIDE	Annex 13
Types of connection to the bordering component Running rail Installation beneath the ceiling	



dimensions in mm

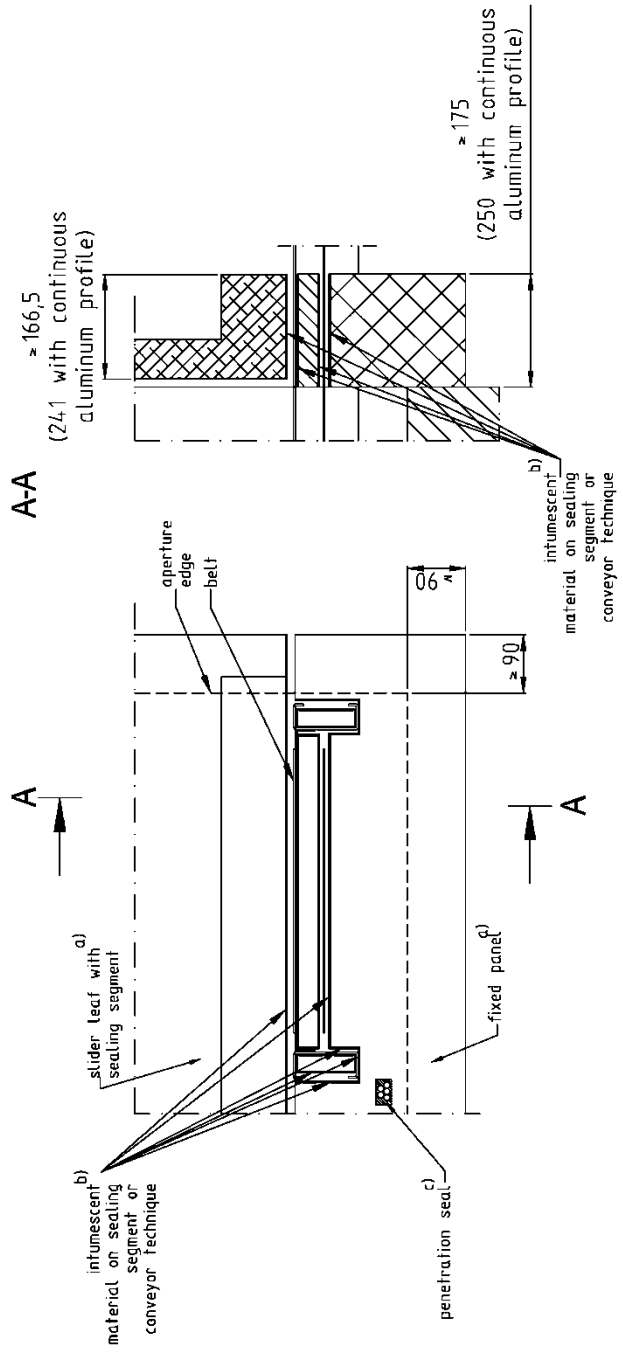
a) dimensions and design are regulated in the control plan relating to the ETA.
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for chain conveyor	Annex 14



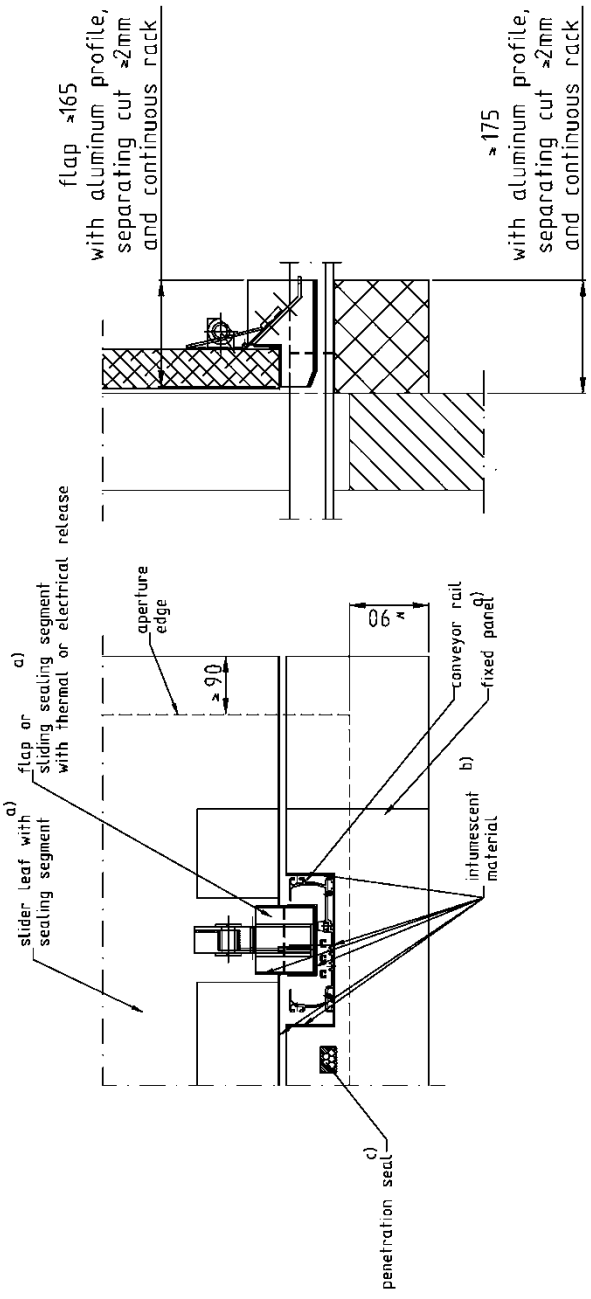
a) dimensions and design are regulated in the control plan relating to the ETA.
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	Annex 15
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for roller conveyor	

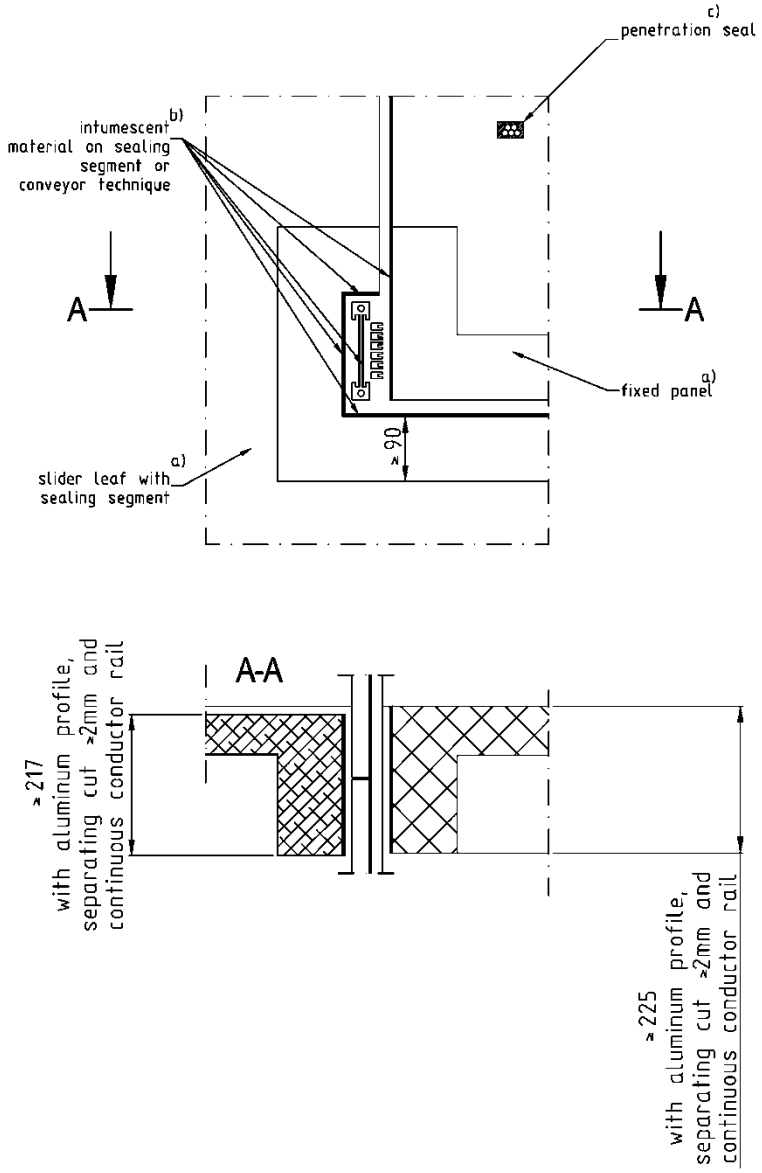


a) dimensions and design are regulated in the control plan relating to the ETA
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan, penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for belt conveyor	Annex 16



abs EI SLIDE	
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for container conveyor - with folding or sliding sealing segment	Annex 17



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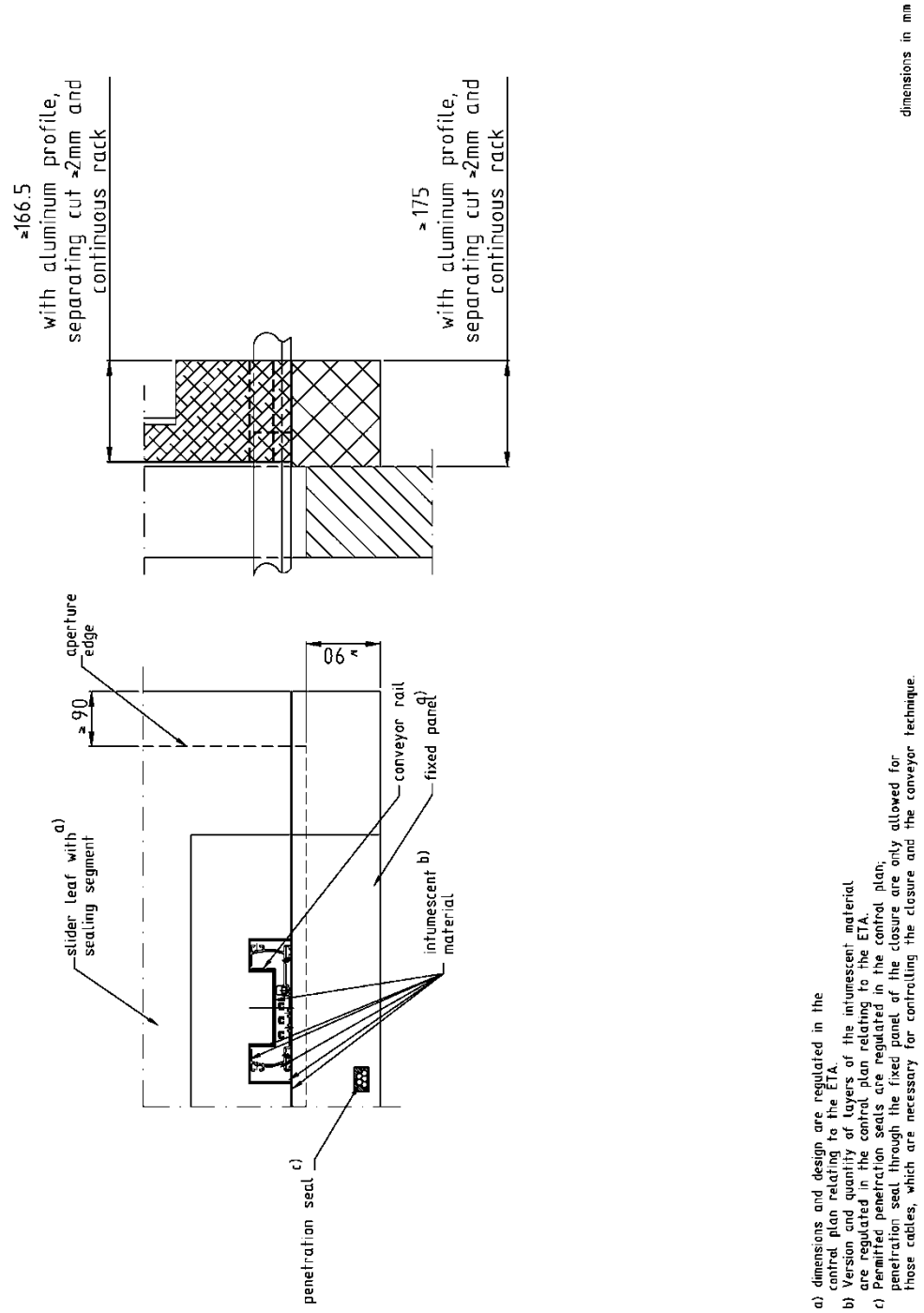
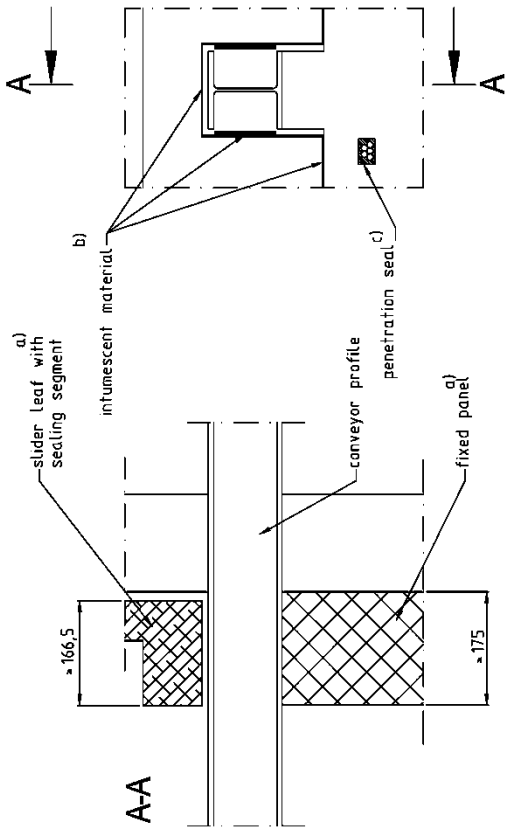
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

dimensions in mm

abs EI SLIDE	Annex 18
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for electric monorail system	



abs EI SLIDE	
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for container conveyor	Annex 19



dimensions in mm

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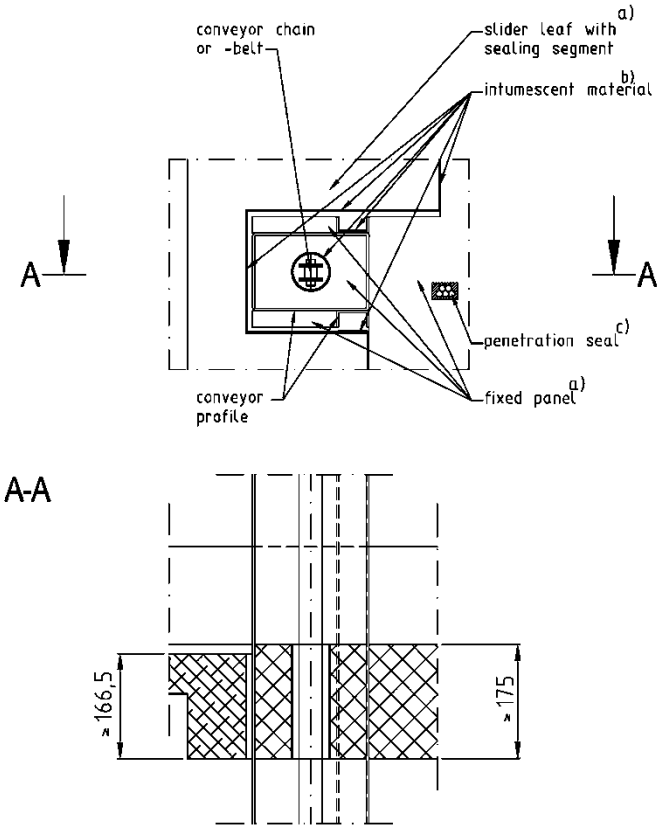
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	Annex 20
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for crane runway (H-beam)	



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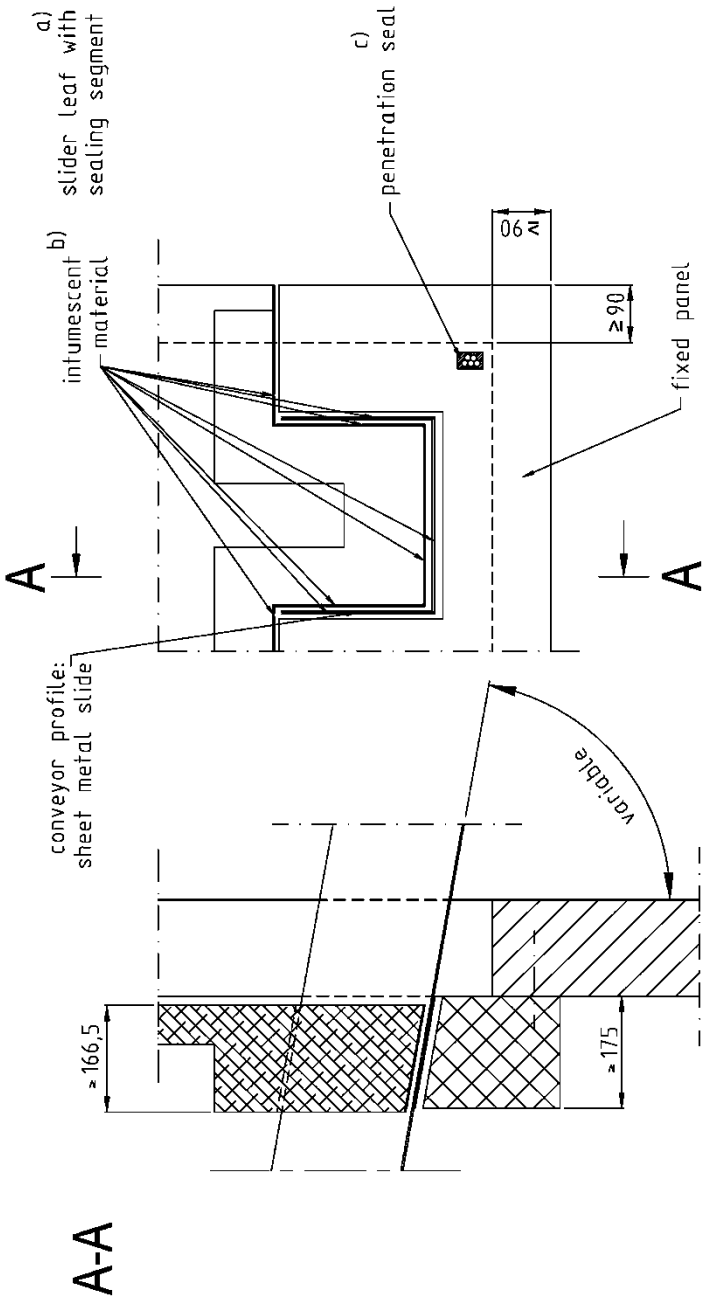
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

dimensions in mm

abs EI SLIDE	Annex 21
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for jack - floor installation	



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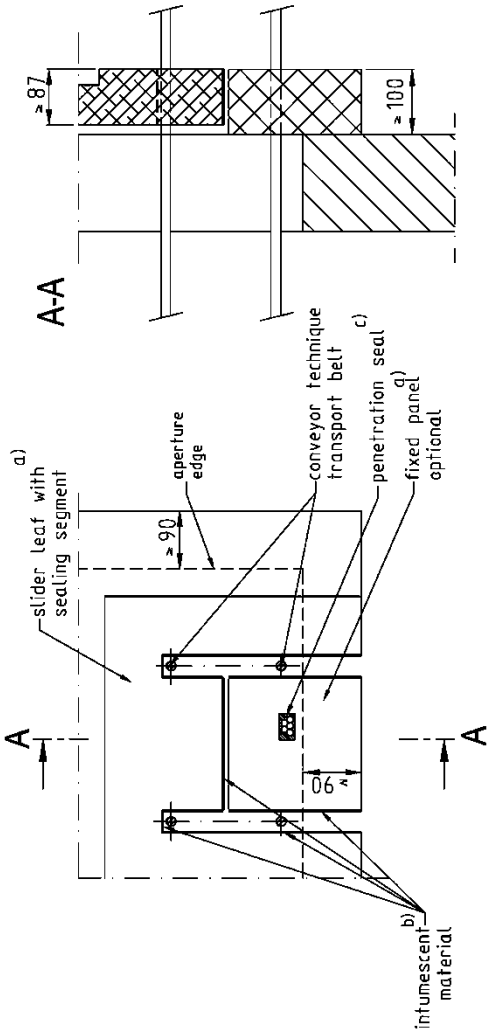
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for slide	Annex 22



dimensions in mm

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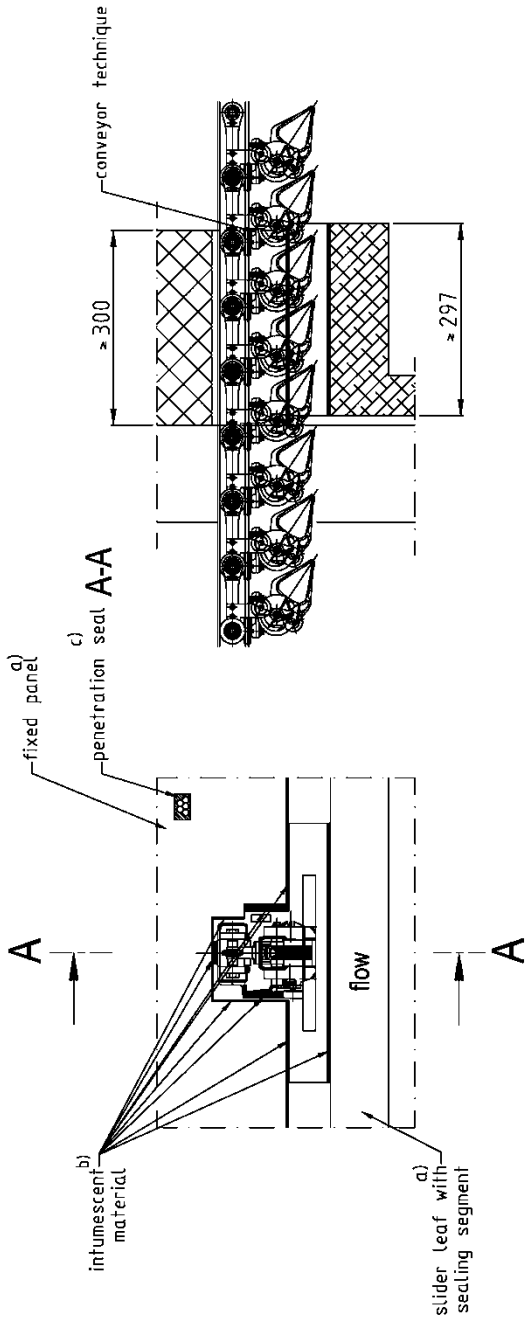
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for tray conveyor (o-belt)	Annex 23



dimensions in mm

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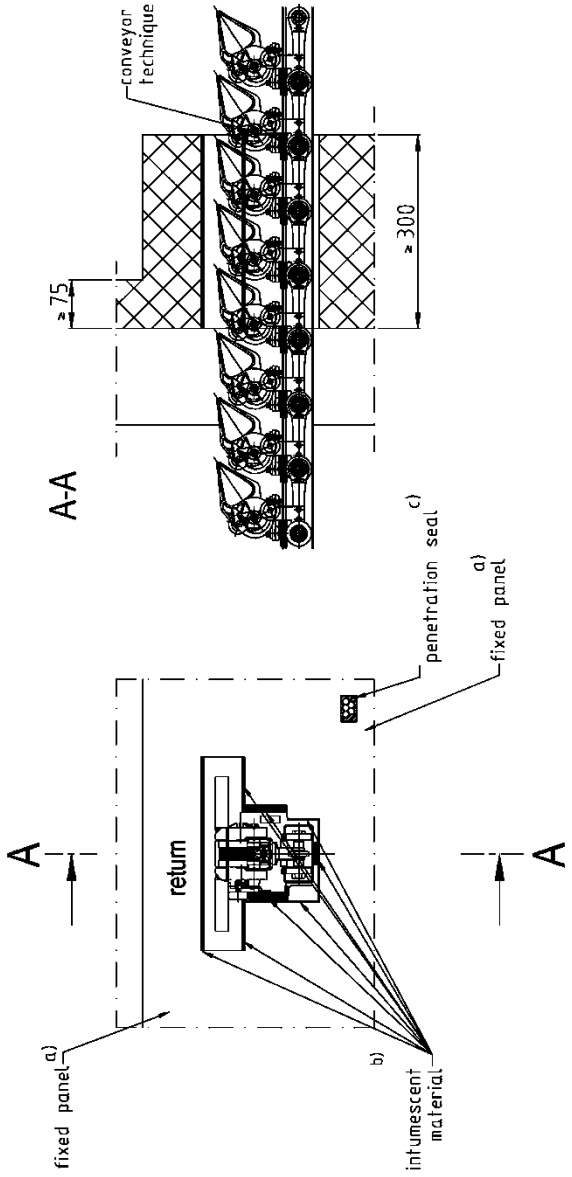
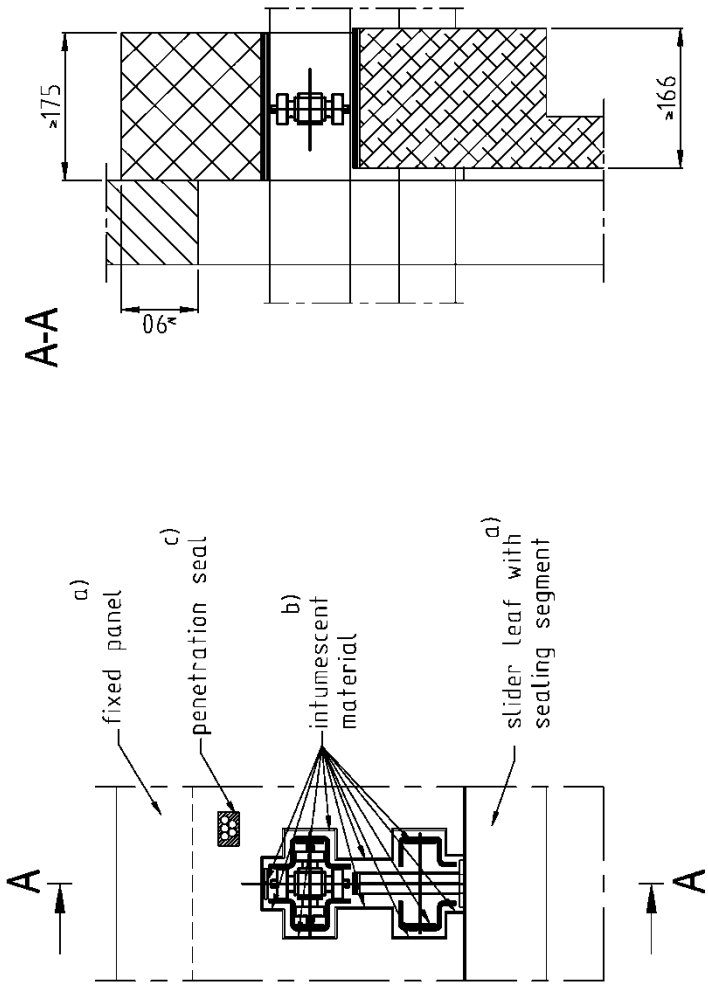
abs EI SLIDE	Annex 24
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for paper conveyor (flow line)	



dimensions in mm

a) dimensions and design are regulated in the control plan relating to the ETA.
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the ETA.
c) Permitted penetration seals are regulated in the control plan; penetration seal through the fixed panel of the closure are only allowed for those cables, which are necessary for controlling the closure and the conveyor technique.

abs EI SLIDE	Annex 25
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for paper conveyor (return in the fixed panel)	



dimensions in mm

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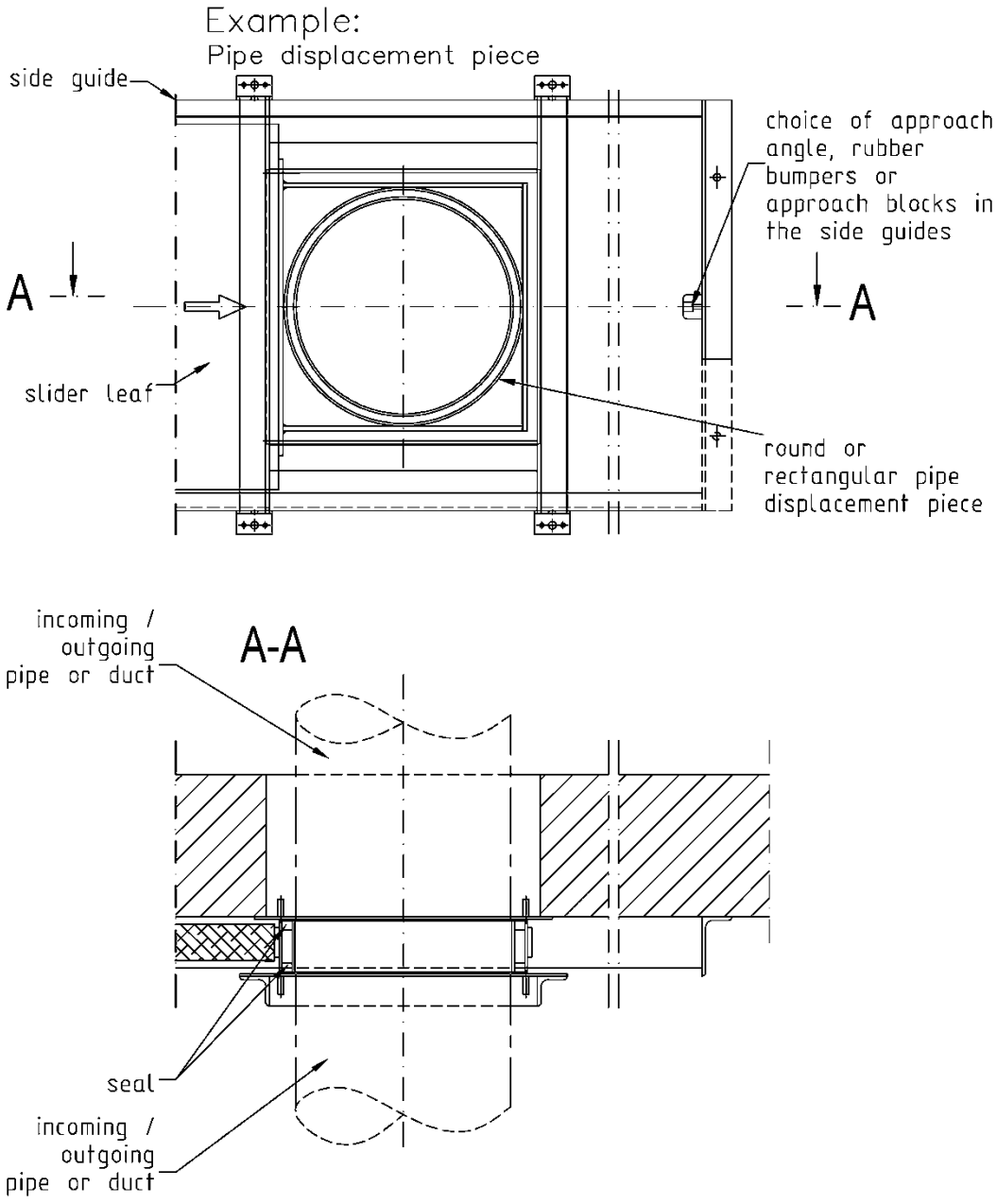
abs EI SLIDE	Annex 26
Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for "power and free" - conveyor	



abs EI SLIDE	Annex 27
Detail – sealing of the continuous conveyor technique – Pipe displacement piece for pipe conveyor	