



Designated according to The Construction Products (Amendment etc.) (EU Exit) Regulations 2020

UK Technical Assessment	UKTA-0836-23/6748 of 08/03/2023
Technical Assessment Body issuing the UK Technical Assessment:	British Board of Agrément
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(s):	abs Sicherungstechnik GmbH & Co. KG Robert-Koch-Straße 19b 55129 Mainz DEUTSCHLAND
This UK Technical Assessment contains:	35 pages including 26 Annexes which form an integral part of this assessment
This UK Technical Assessment is issued in accordance with The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 on the basis of:	UKAD 350022-01-1107 Kit for closure system for conveyor systems

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1. Technical description of the product

This UK Technical Assessment 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:

Single-leaf sliding leaf

The approximately 62 mm thick sliding leaf consists of various calcium silicate boards (40 mm and 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) steel hollow profiles (40 mm x 40 mm x 2 mm) are located. The front sides are covered with 0.75 mm thick steel plates. At the lateral faces, the angle profiles are 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, cable penetration seals may be inserted (Table 4).

Guide for the sliding leaf

The guiding rails, running gears, running rails and wall fastenings must be dimensioned according to dimension and weight of the sliding leaf. They must comply with the declarations of the drawings of the control plan 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 leaf's 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, must be provided with additional devices against opening in the case of fire (e.g., a thermally actuated locking device) if the sliding leaf exceeds a defined weight.

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 ($t \geq 2$ 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.

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(s) in accordance with the applicable UK Assessment Document (hereinafter UKAD)

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

When the cable penetration seals and the intumescent materials are used, the verified ambient conditions (e.g. the category stated in TR024²) 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 UK 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 UK 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 $\geq 800 \text{ kg} \cdot \text{m}^{-3}$ and a thickness $\geq 150 \text{ mm}$	E 120	2.500 mm	2.500 mm	6,25 m ²
	El ₂ 90 El ₁ 60	3.750 mm	3.750 mm	9,38 m ²
Low-density solid wall aerated concrete with an overall density of $\geq 450 \text{ kg} \cdot \text{m}^{-3}$ and a thickness $\geq 150 \text{ mm}$	E 120	2.500 mm	2.500 mm	6,25 m ²
	El ₂ 90 El ₁ 60	3.750 mm	3.750 mm	9,38 m ²
Lightweight wall in accordance with annex 8, fastening version 3 thickness $\geq 100 \text{ mm}$	El ₂ 90 El ₁ 90	2.000 mm	2.000 mm	4,00 m ²
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				

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 $\geq 800 \text{ kg} \cdot \text{m}^{-3}$ and a thickness $\geq 150 \text{ mm}$	El ₂ 90 El ₁ 60	2.090 mm	2.090 mm	2,34 m ²
Low-density solid floor aerated concrete with an overall density of $\geq 450 \text{ kg} \cdot \text{m}^{-3}$ and a thickness $\geq 150 \text{ mm}$	El ₂ 90 El ₁ 60	2.090 mm	2.090 mm	2,34 m ²
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 - The conveyor tracks can be continuous or disconnected or disconnected while closing of the closure in the closing area of the sliding leaf.

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 technology⁶

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 (Annex 20) (steel profile)	175 mm	166 mm	EI 120
Container conveyor system (Annexes 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
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 (Annexes 24 & 25)	300 mm	297 mm	EI 120
Power & free (Steel) (Annex 26)	175 mm	166 mm	EI 120

⁶⁾ see Annexes 14 to 26

⁷⁾ or aluminium profiles with separating cut (≥ 2 mm)

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. Mechanical resistance and stability (BWR 1)

Not relevant.

3.2. Safety in case of fire (BWR 2)

Essential characteristic	Performance
Fire resistance (EN 13501-2)	See clause 2, Tables 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 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
	Calcium 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

3.3. Health, hygiene and the environment (BWR 3)

Not relevant.

3.4. Safety and accessibility in use (BWR 4)

Not relevant.

3.5. Protection against noise (BWR 5)

Not relevant.

3.6. Energy economy and heat retention (BWR 6)

Not relevant.

3.7. Sustainable use of natural resources (BWR 7)

No performance assessed.

4. Assessment and verification of constancy of performance (hereinafter AVCP) system applied

4.1. System of assessment and verification of constancy of performance

According to UKAD No. 350022-01-1107 and Annex V of the Construction Products Regulation (Regulation (EU) 305/2011) as brought into UK law and amended, the system of assessment and verification of constancy of performance (AVCP) 1 applies.

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with the British Board of Agrément and made available to the UK Approved Bodies involved in the conformity attestation process.

5.1. UKCA marking for the product/ system must contain the following information:

- Identification number of the Approved Body
- Name/address of the manufacturer of the product/ system
- Marking with intention of clarification of intended use
- Date of marking
- Number of certificate of constancy of performance (where applicable)
- UKTA number.

On behalf of the British Board of Agrément



Date of Issue: 8 March 2023

Hardy Giesler
Chief Executive Officer

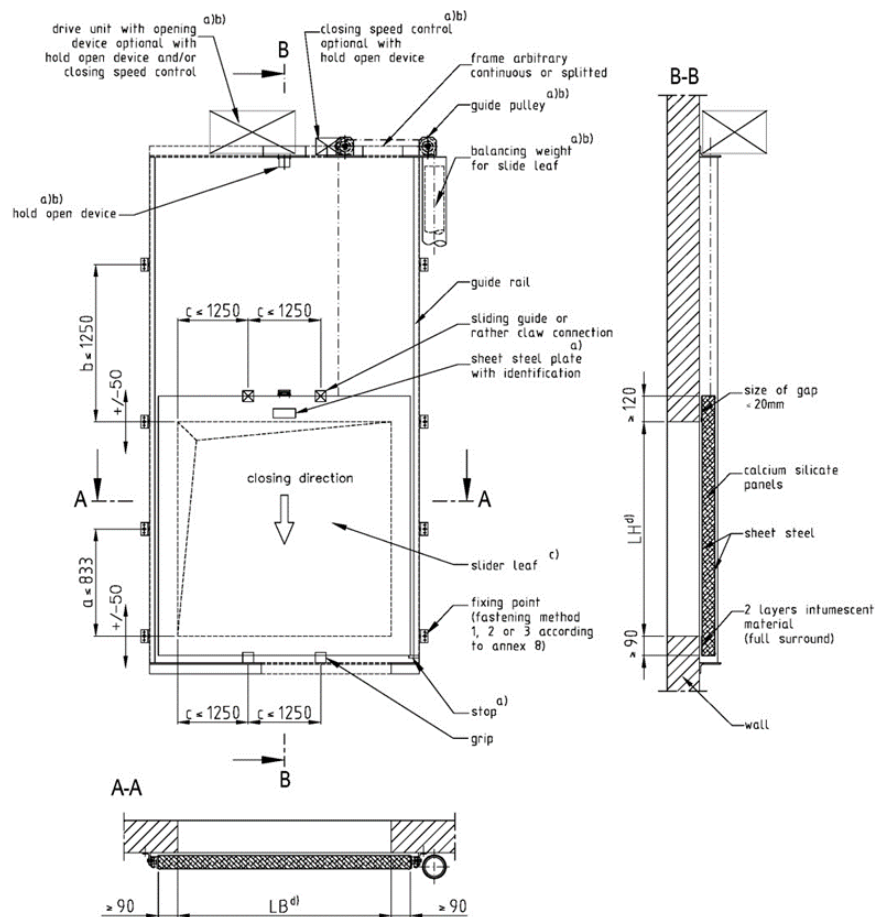


British Board of Agrément,
1st Floor Building 3,
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Croxley Park
Watford
WD18 8YG

ANNEX 1

Overview – closing direction downwards form above Wall installation

This annex applies to the product described in the main body of the UK Technical Assessment.



dimensions in mm

- 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 UKTA

Overview – closing direction upwards from below Wall installation

Technical drawing of a door assembly, showing front, side, and cross-sectional views with detailed labels for components and dimensions.

Front View (Main):

- Dimensions:**
 - Top width: $c \leq 1250$ (twice)
 - Left height: $a \approx 833$ (with ± 50 tolerance)
 - Bottom height: $b \approx 1750$ (with ± 50 tolerance)
 - Bottom width: $c \leq 1250$ (twice)
- Labels:**
 - grip
 - closing speed control optional with hold open device
 - guide pulley
 - stop
 - closing device (weight, spring, door closer etc.)
 - slider leaf
 - fixing point (fastening method 1, 2 or 3 according to annex 8)
 - fall protection
 - sliding guide or roller claw connection
 - sheet steel plate with identification
 - guide rail
 - hold open device
 - frame arbitrary continuous or splitted
 - drive unit with opening device optional with hold open device and/or closing speed control
 - closing direction (indicated by an arrow)

Side View (B-B):

- Dimensions:**
 - Top width: $a \approx 120$
 - Height: H^{dl}
 - Bottom width: $a \approx 90$
- Labels:**
 - sheet steel
 - calcium silicate panels
 - size of gap $\approx 20\text{mm}$
 - 2 layers intumescent material (fall surround)
 - well

Cross-section A-A:

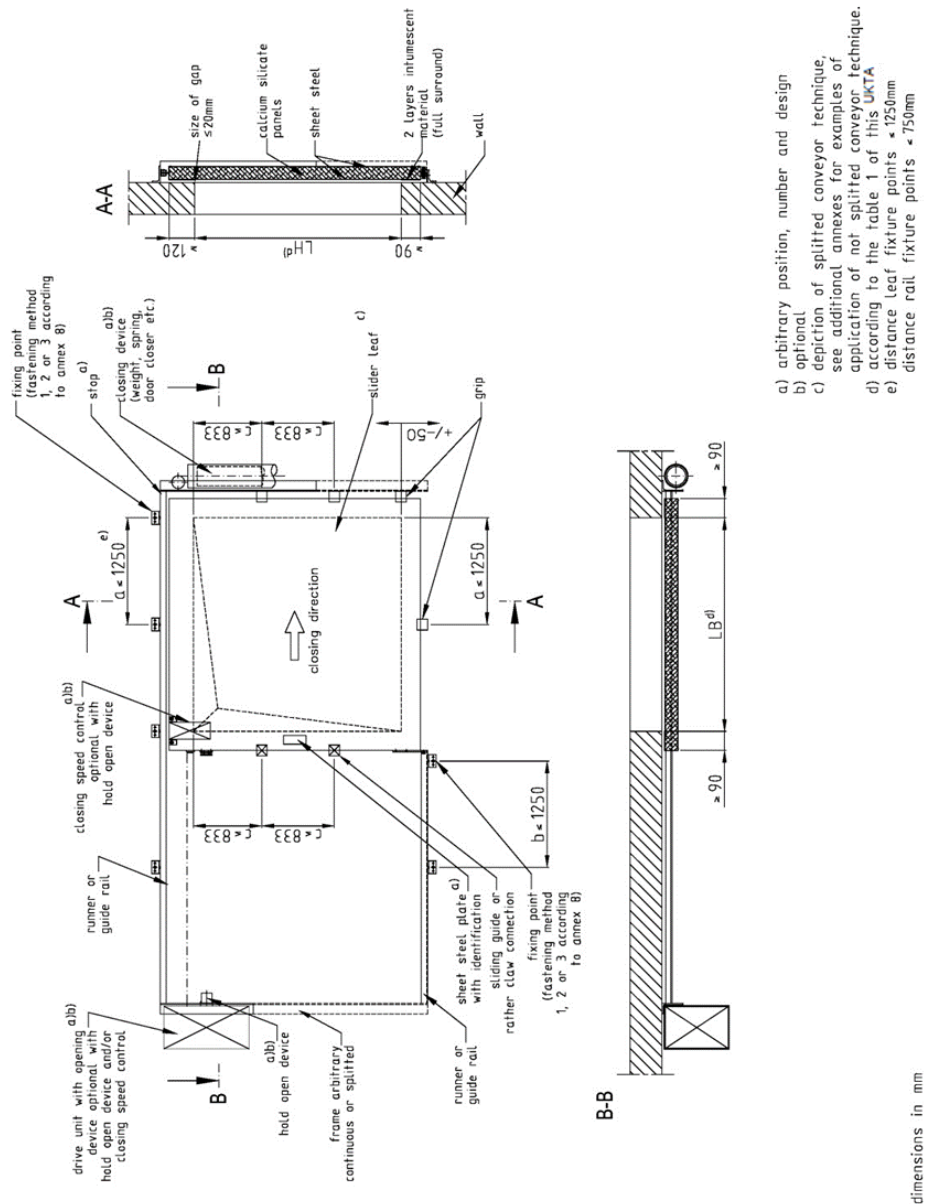
- Dimensions:**
 - Width: $a \approx 90$ (twice)
 - Height: LB^{dl}

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

ANNEX 3

Overview – horizontal closing direction Wall installation

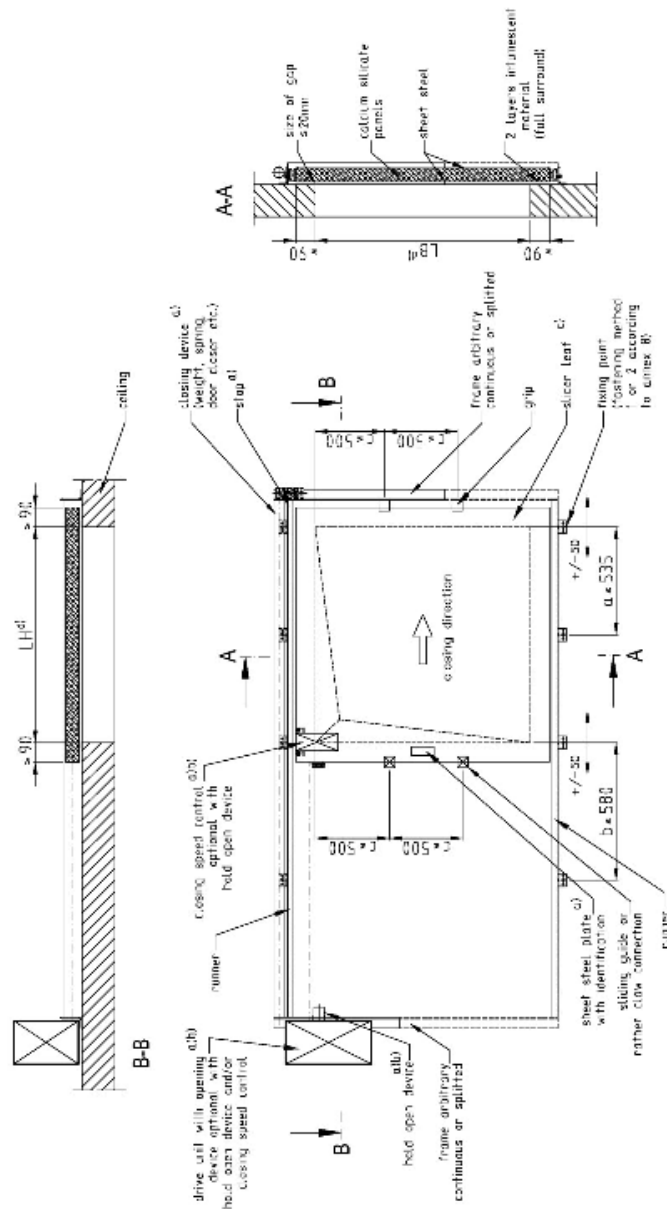
This annex applies to the product described in the main body of the UK Technical Assessment.



ANNEX 5

Overview – horizontal closing direction On-floor installation

This annex applies to the product described in the main body of the UK Technical Assessment.



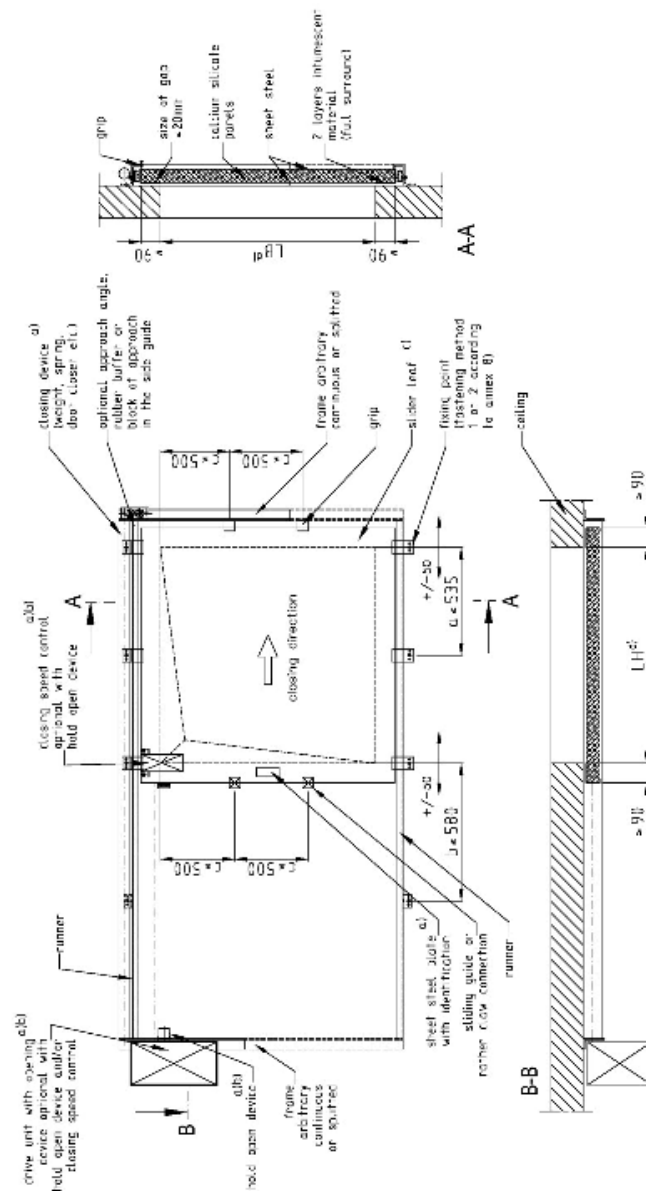
- a) arbitrary position, number and design
- b) optional
- c) depiction of splitted conveyor technique, see additional annexes for examples of application of not splitted conveyor technique.
- d) according to the table 2 of this UKTA

dimensions in mm

ANNEX 6

Overview – horizontal closing direction+ Installation beneath the ceiling

This annex applies to the product described in the main body of the UK Technical Assessment.

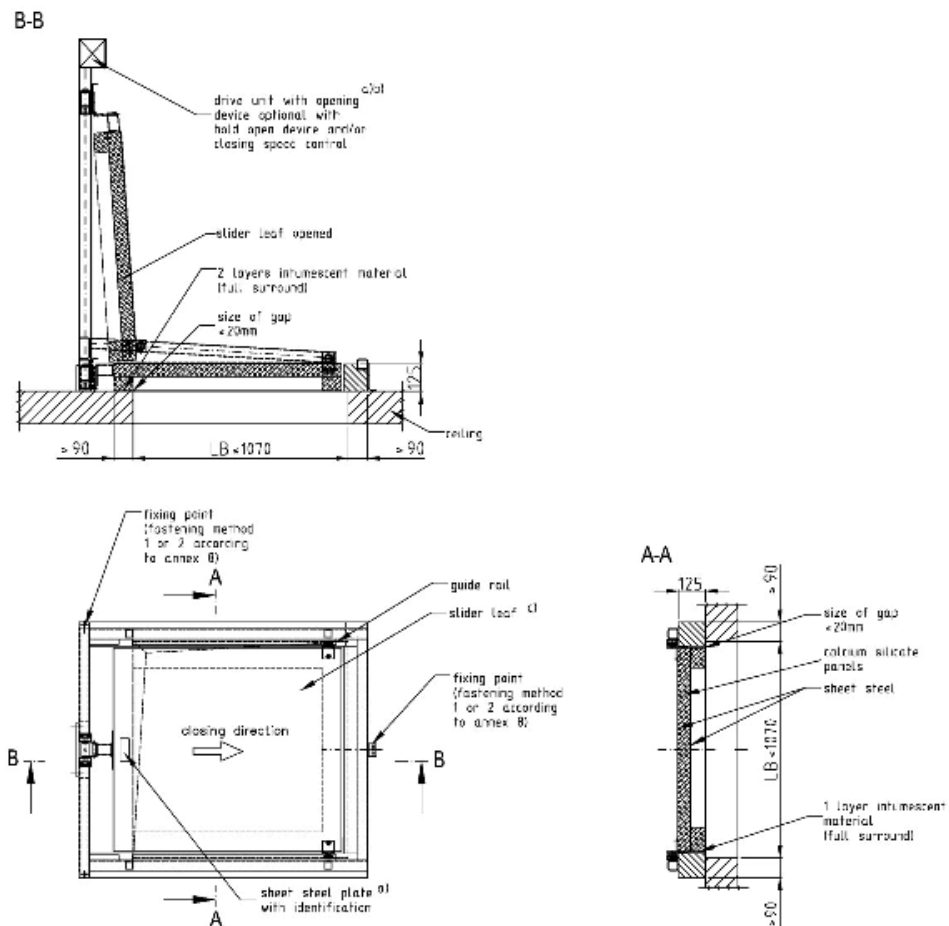


dimensions in mm

ANNEX 7

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

This annex applies to the product described in the main body of the UK Technical Assessment.



dimensions in mm

- 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.

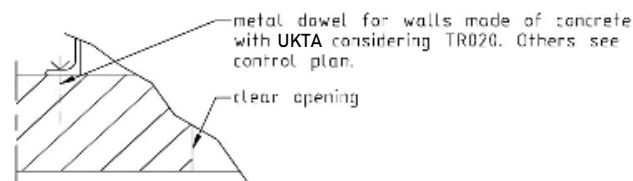
ANNEX 8

Types of connection to the bordering component Fastening methods

This annex applies to the product described in the main body of the UK Technical Assessment.

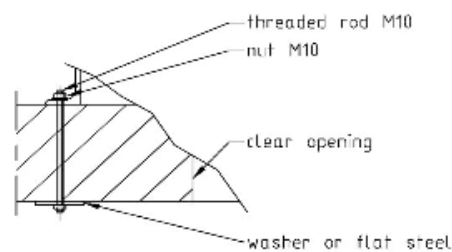
fastening method 1

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



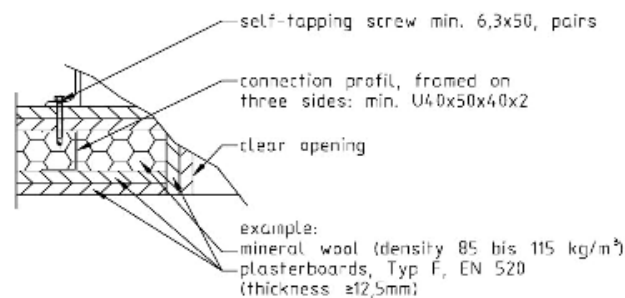
fastening method 2

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



fastening method 3

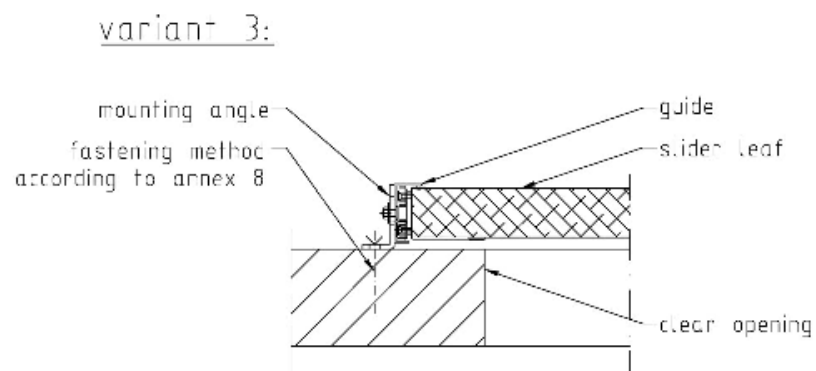
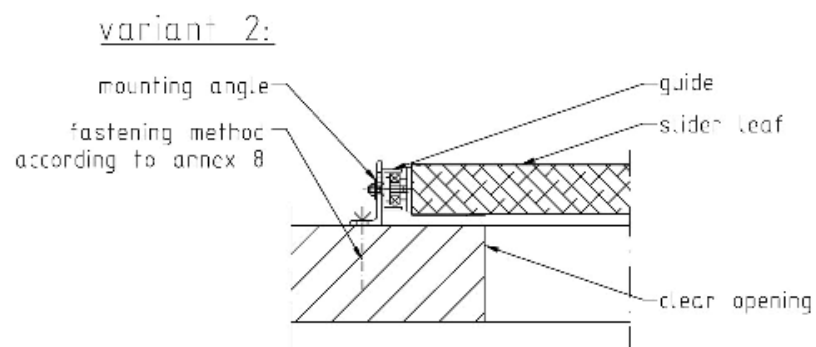
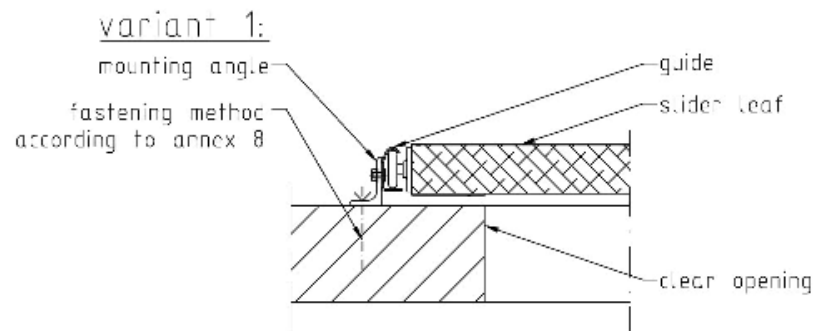
(Lightweight plasterboard faced steel stud partition EI90):



ANNEX 9

Types of connection to the bordering component Vertical guide Wall installation

This annex applies to the product described in the main body of the UK Technical Assessment.



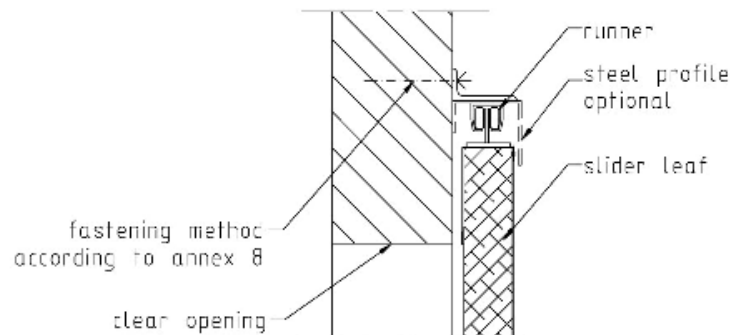
ANNEX 10

Connection to the bordering component, horizontal closing direction, wall installation

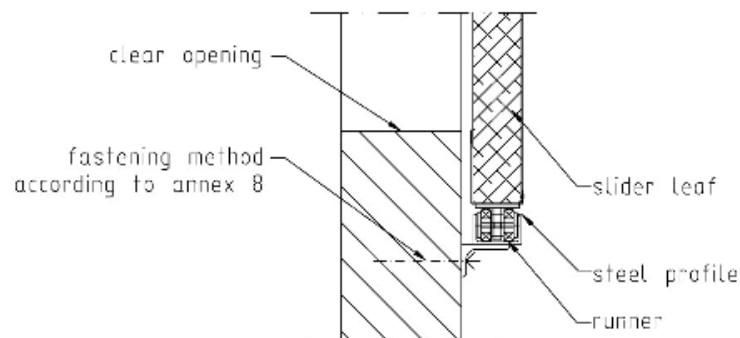
- variant 1: hanging slider leaf (maximum weight of the slider leaf acc. HELM-rail)
- variant 2: standing slider leaf (maximum weight of the slider leaf: 285 kg)

This annex applies to the product described in the main body of the UK Technical Assessment.

variant 1: hanging slider leaf



variant 2: standing slider leaf

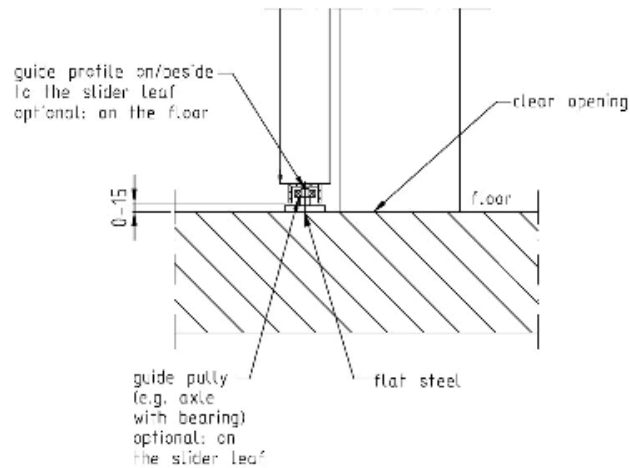


ANNEX 11

Types of connection to the bordering component Guide rails below and in elevated position Wall installation

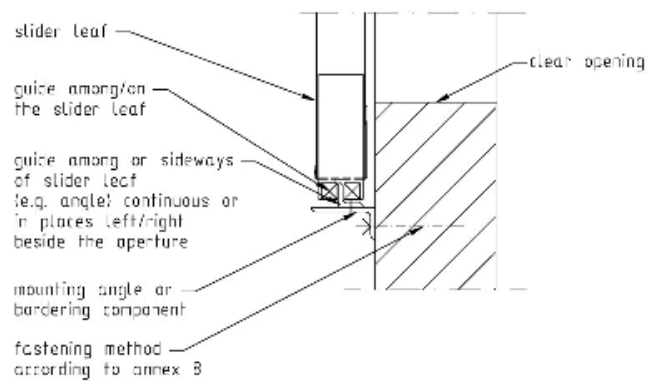
This annex applies to the product described in the main body of the UK Technical Assessment.

variant 1:



variant 2:

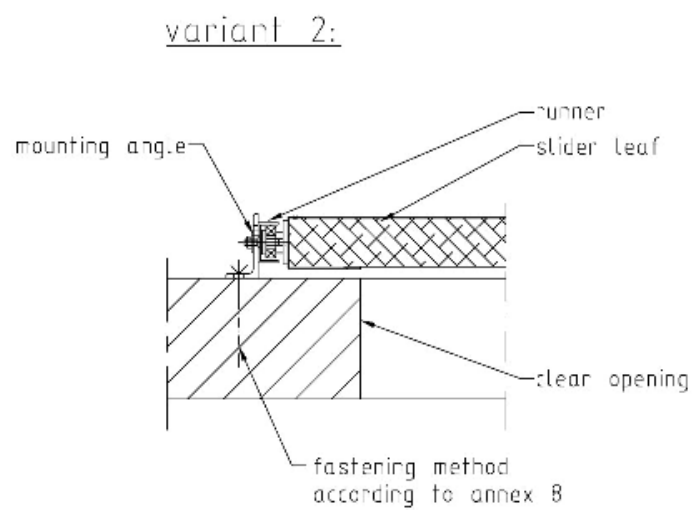
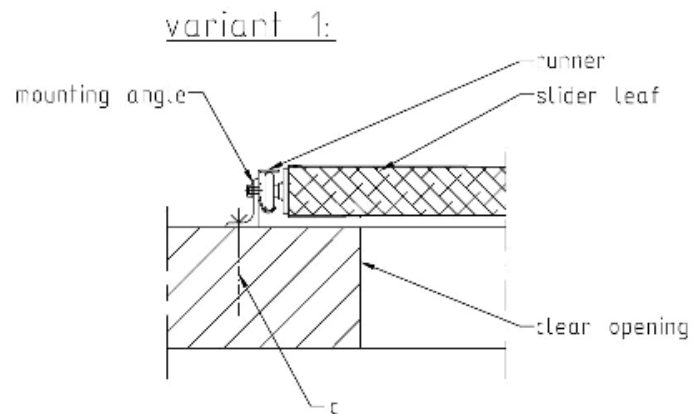
for installation in elevated position



ANNEX 12

Types of connection to the bordering component Running rail On-floor installation

This annex applies to the product described in the main body of the UK Technical Assessment.

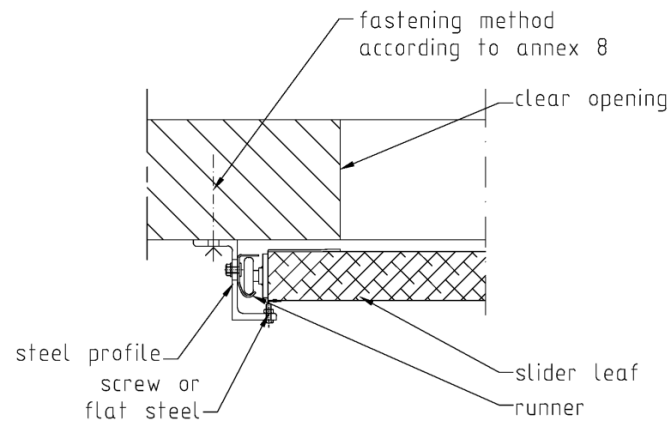


ANNEX 13

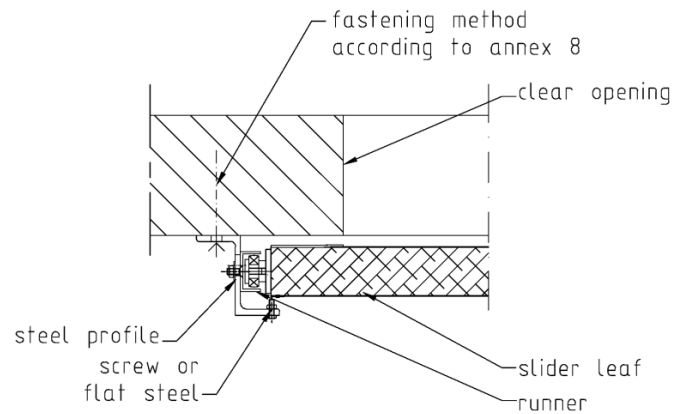
Types of connection to the bordering component Running rail Installation beneath the ceiling

This annex applies to the product described in the main body of the UK Technical Assessment.

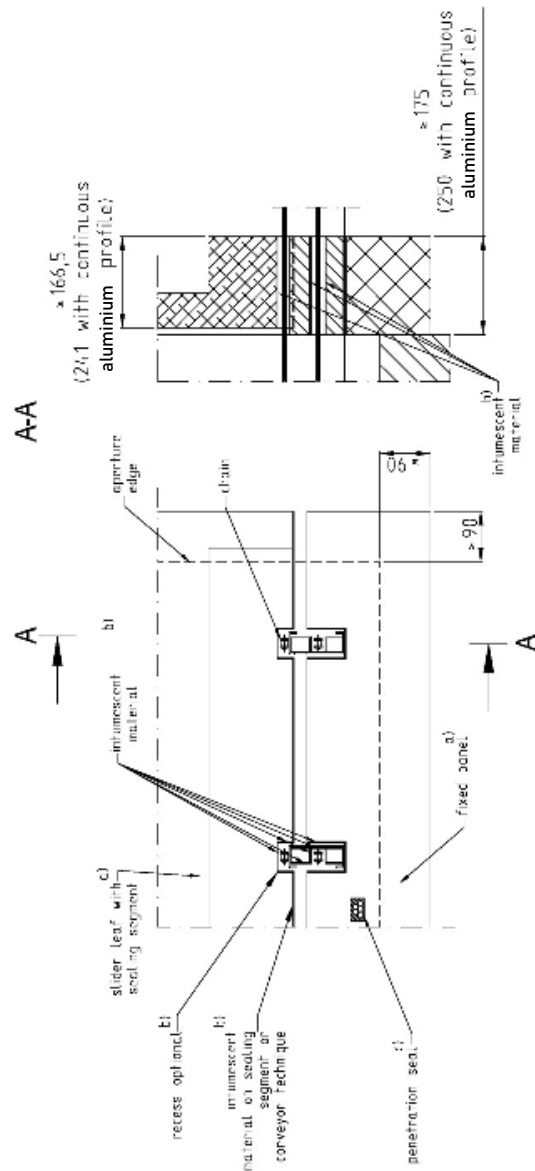
variant 1:



variant 2:



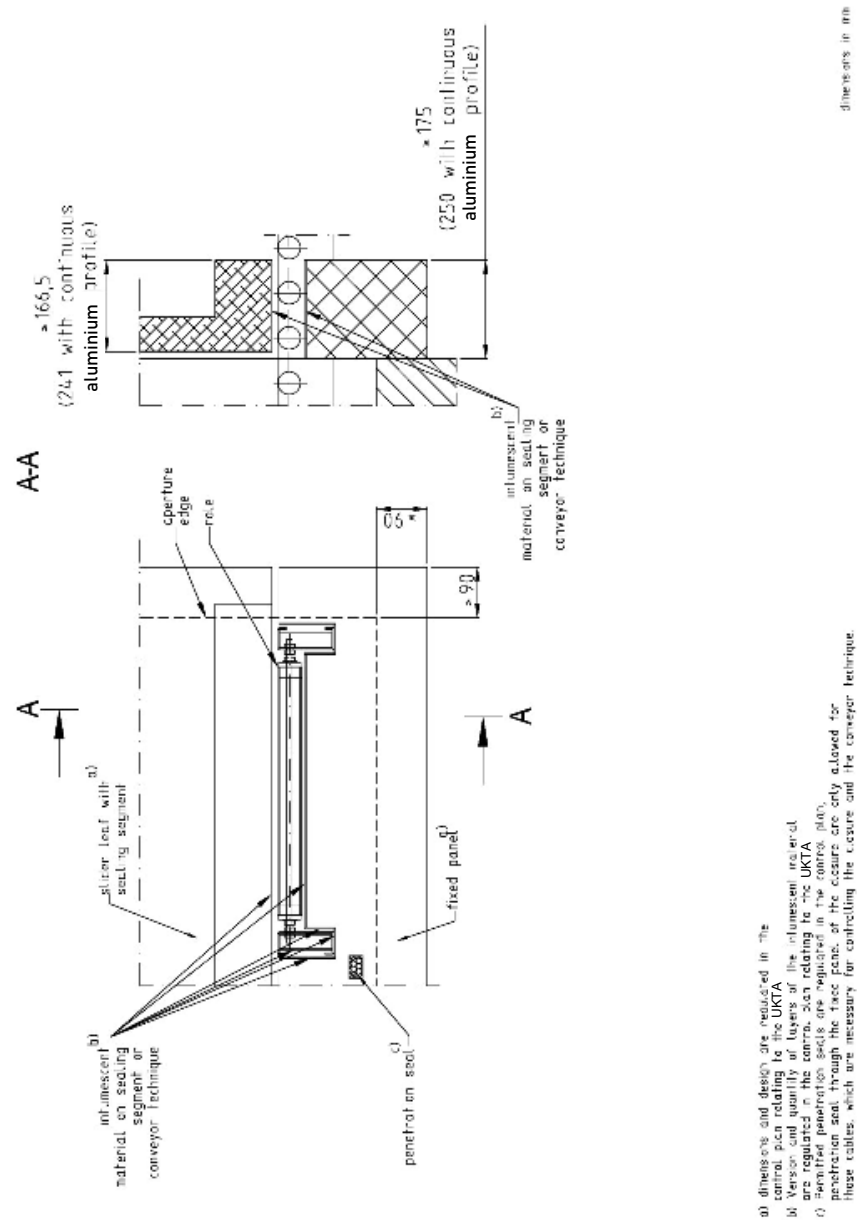
Detail – sealing of the continuous conveyor technique
- sealing segment and fixed panel for chain conveyor



d) dimensions and design are regulated in the control plan relating to the UKTA

Detail – sealing of the continuous conveyor technique
- sealing segment and fixed panel for roller conveyor

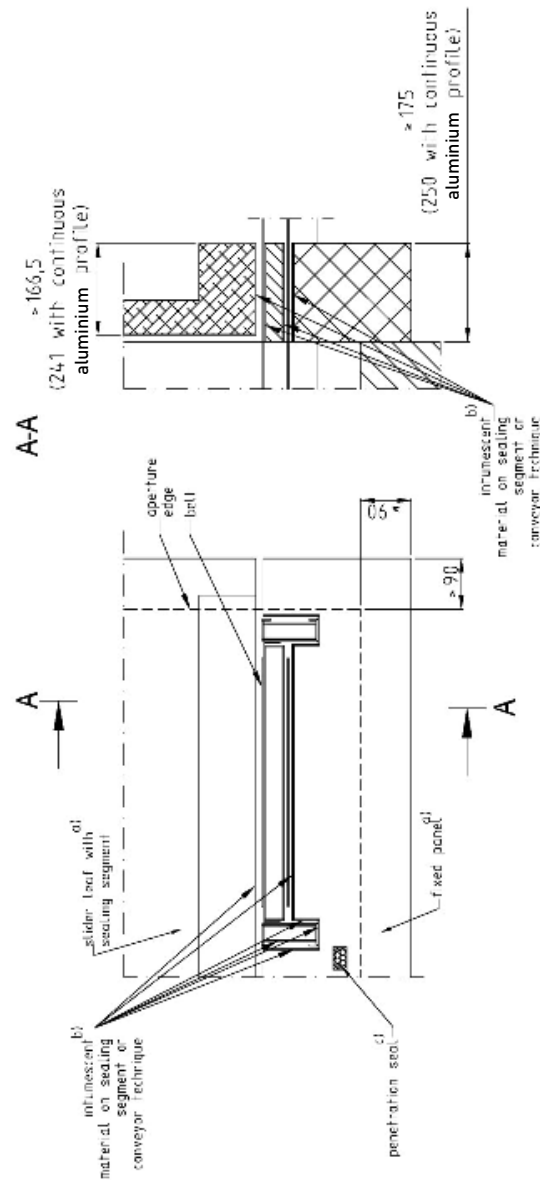
This annex applies to the product described in the main body of the UK Technical Assessment.



ANNEX 16

Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for belt conveyor

This annex applies to the product described in the main body of the UK Technical Assessment.



a) dimensions and design are regulated in the control plan relating to the UKTA
b) Version and quantity of layers of the resilient material are regulated in the control plan relating to the UKTA
c) Penetration seals are regulated in the control plan, these seals, which are necessary for controlling the closure and the conveyor technique

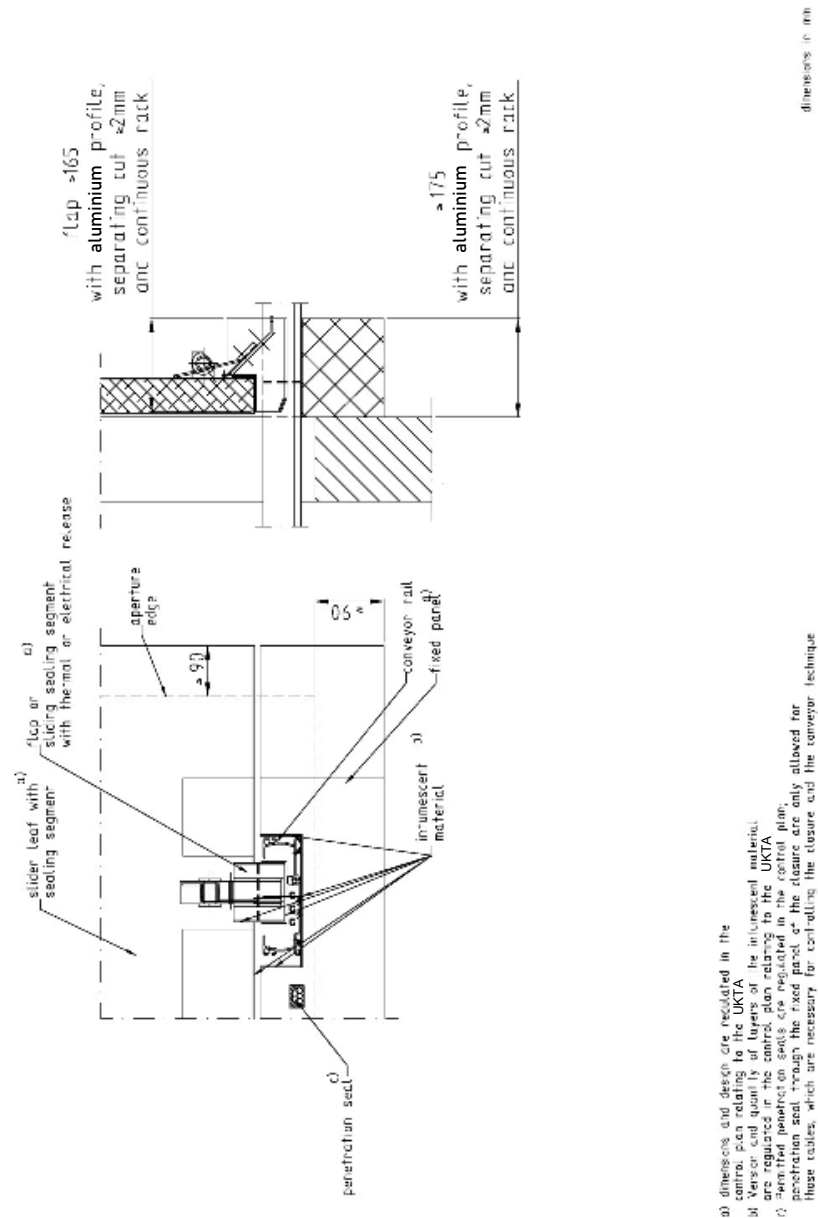
dimensions in mm

ANNEX 17

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for container conveyor
- with folding or sliding sealing segment

This annex applies to the product described in the main body of the UK Technical Assessment.

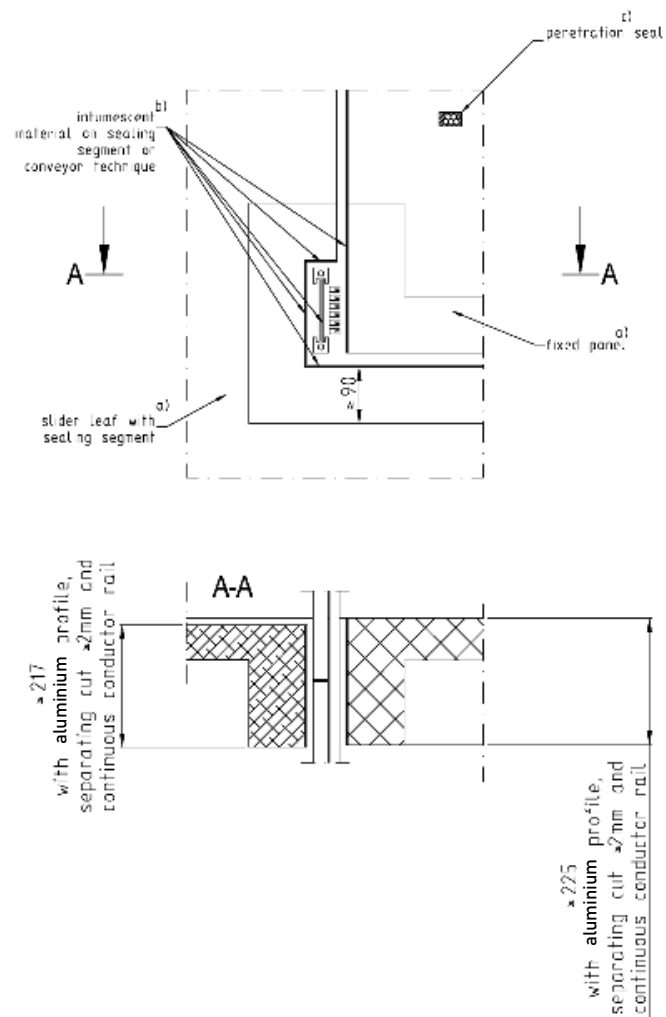


ANNEX 18

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for electric monorail system

This annex applies to the product described in the main body of the UK Technical Assessment.



- a) dimensions and design are regulated in the control plan relating to the UKTA
- b) Version and quantity of layers of the inflammable material are regulated in the control plan relating to the UKTA
- 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.

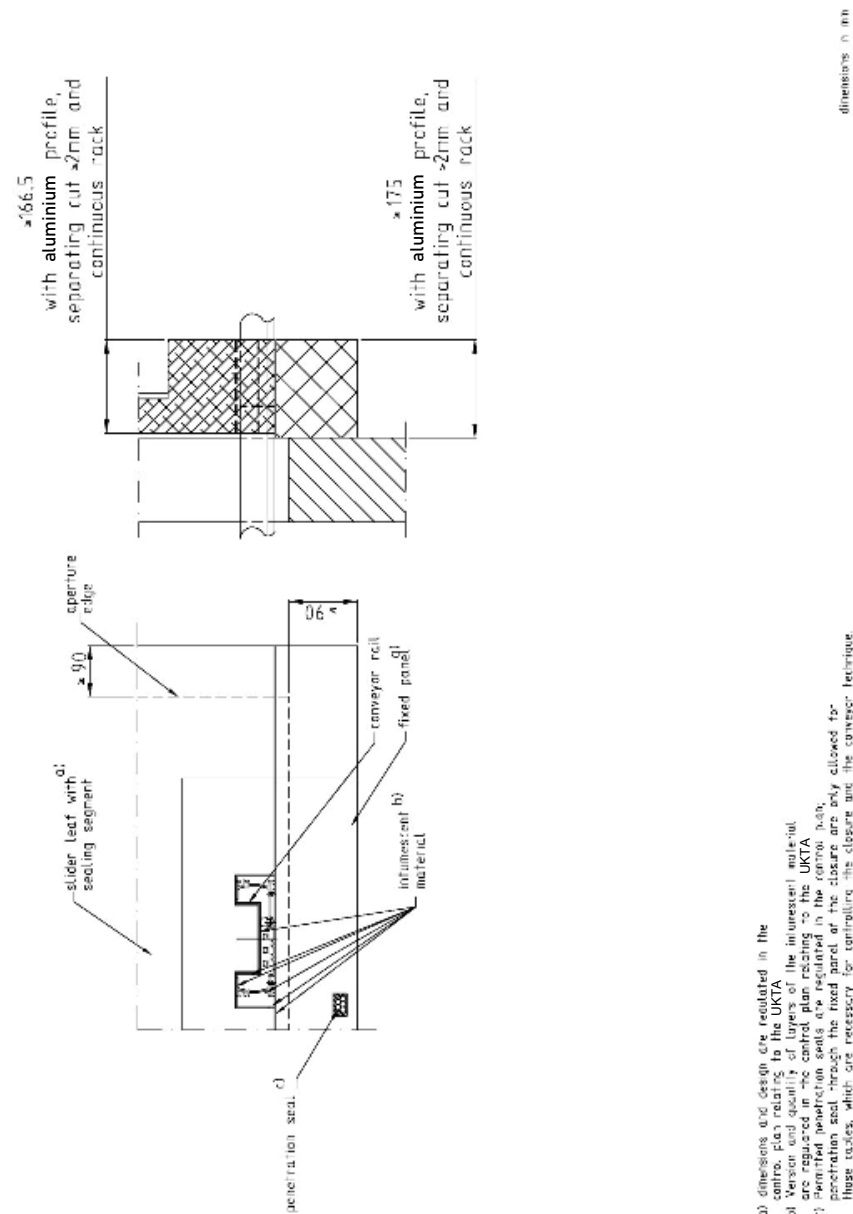
Dimensions in mm

ANNEX 19

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for container conveyor

This annex applies to the product described in the main body of the UK Technical Assessment.



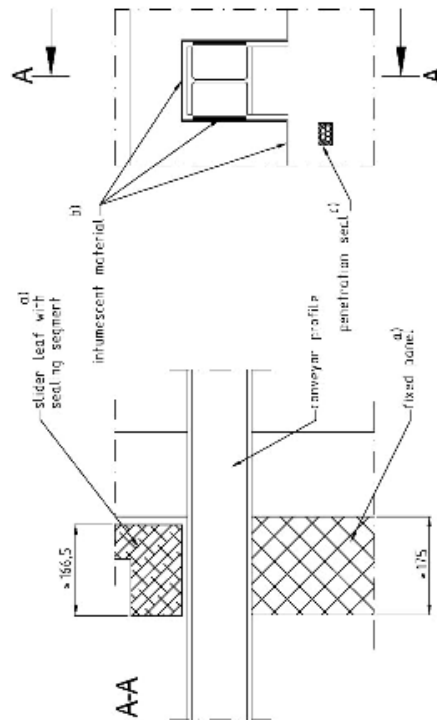
a) dimensions and design are regulated in the control plan relating to the UKTA
 b) Version and quality of layers of the infill material are regulated in the control plan relating to the UKTA
 c) Permitted penetration seals are regulated in the control plan
 d) Penetration seal through the fixed panel of the closure are only allowed for those cases, which are necessary for controlling the closure and the conveyor technique

ANNEX 20

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for crane runway (H-beam)

This annex applies to the product described in the main body of the UK Technical Assessment.



a) dimensions and design are regulated in the control plan relating to the UKTA.
 b) the infuscent material is regulated in the control plan relating to the UKTA.
 c) Penetration seals are regulated in the control plan relating to the UKTA.
 d) Penetration seals through the fixed panel of the closure are only allowed for those cases, which are necessary for controlling the closure and the conveyor technique.

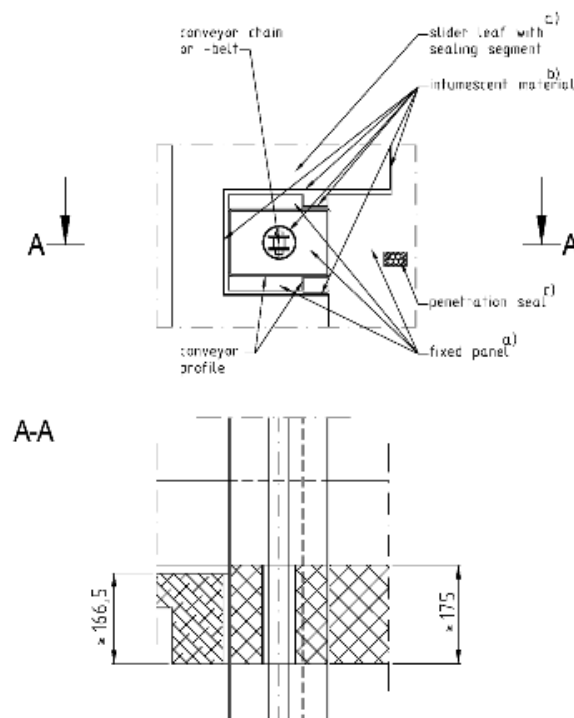
dimensions in mm

ANNEX 21

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for jack
- floor installation

This annex applies to the product described in the main body of the UK Technical Assessment.



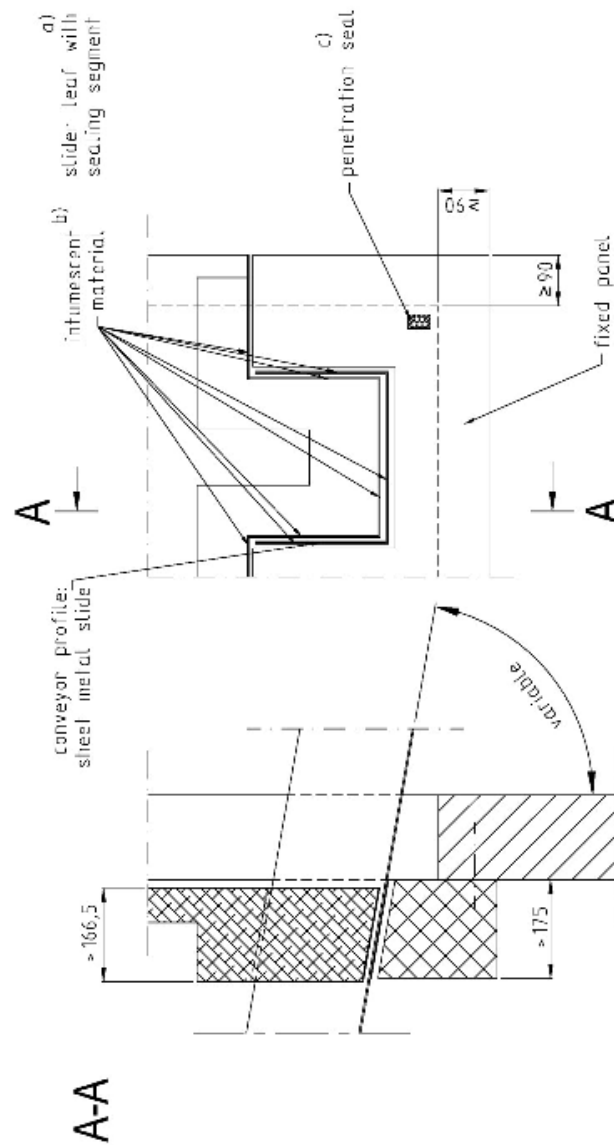
- a) dimensions and design are regulated in the control plan relating to the UKTA
- b) Version and quantity of layers of the infuscent material are regulated in the control plan relating to the UKTA
- c) Permitted penetration seals are regulated in the control plan, penetration seal through the fixed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

dimensions in mm

ANNEX 22

Detail – sealing of the continuous conveyor technique - sealing segment and fixed panel for slide

This annex applies to the product described in the main body of the UK Technical Assessment.



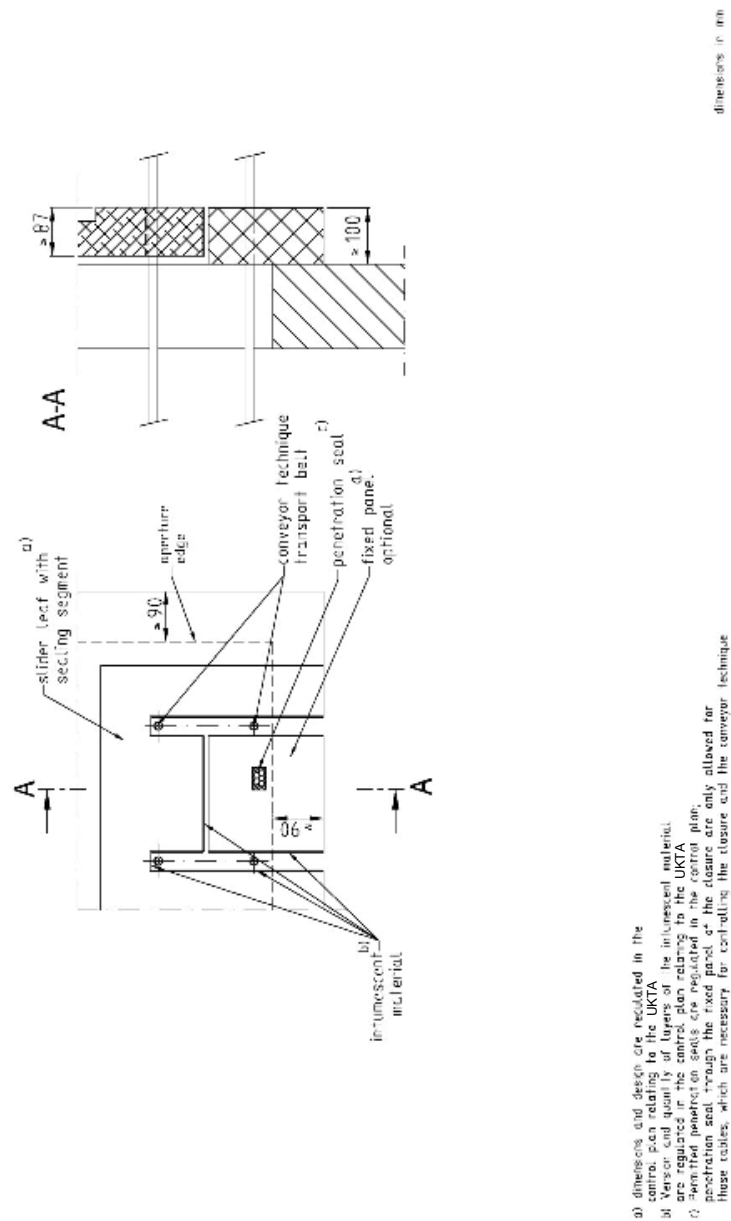
a) dimensions and design are regulated in the control plan relating to the UKTA
b) Version and quantity of layers of the intumescent material are regulated in the control plan relating to the UKTA
c) Penetration seals are regulated in the control plan. Penetration seals through the fixed panel of the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

ANNEX 23

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for tray conveyor (o-belt)

This annex applies to the product described in the main body of the UK Technical Assessment.

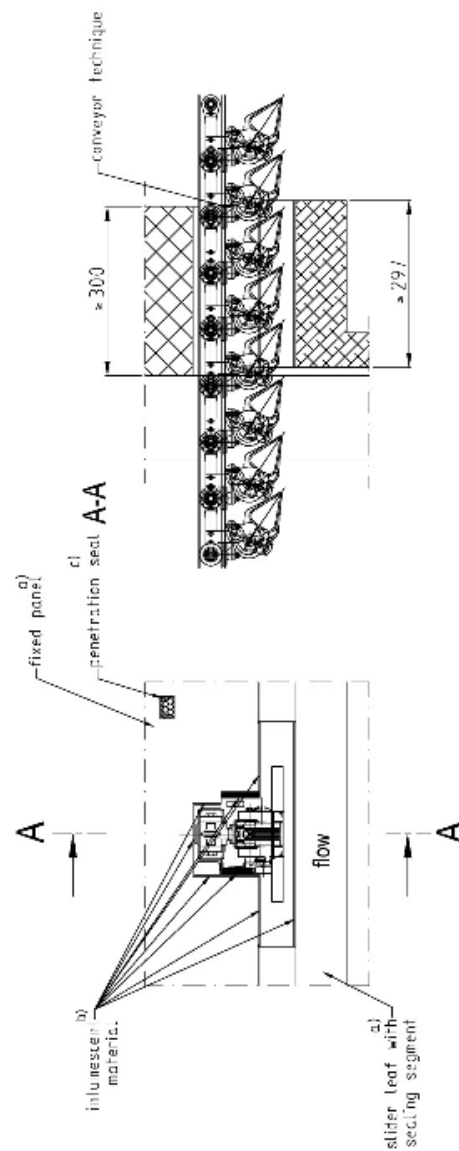


ANNEX 24

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for paper conveyor (flow line)

This annex applies to the product described in the main body of the UK Technical Assessment.



a) dimensions and design are regulated in the control plan relating to the UKTA
b) version and quantity of layers of the incombustible material are regulated in the control plan relating to the UKTA
c) penetration seal through the fixed panel of the closure are only allowed for those rollers, which are necessary for controlling the closure and the conveyor technique

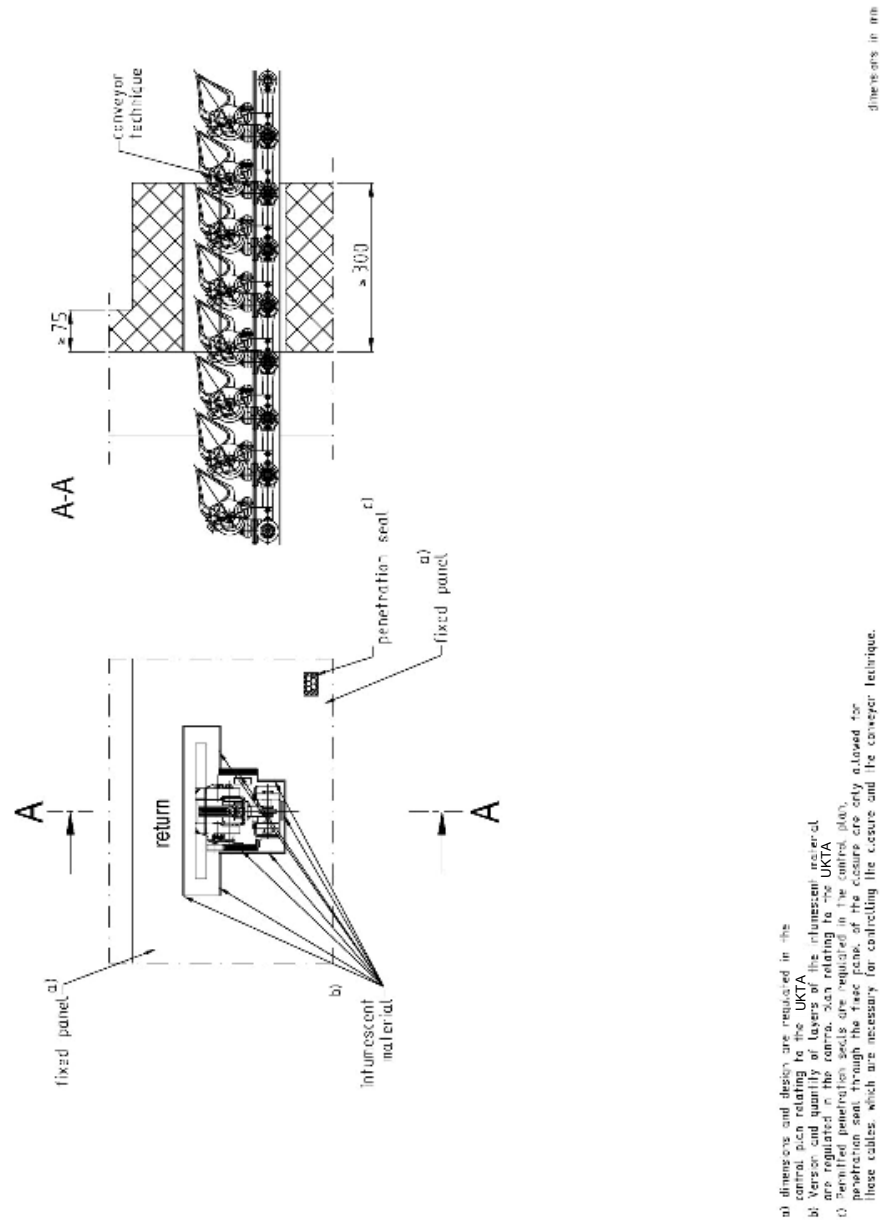
dimensions in mm

ANNEX 25

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for paper conveyor (return in the fixed panel)

This annex applies to the product described in the main body of the UK Technical Assessment.

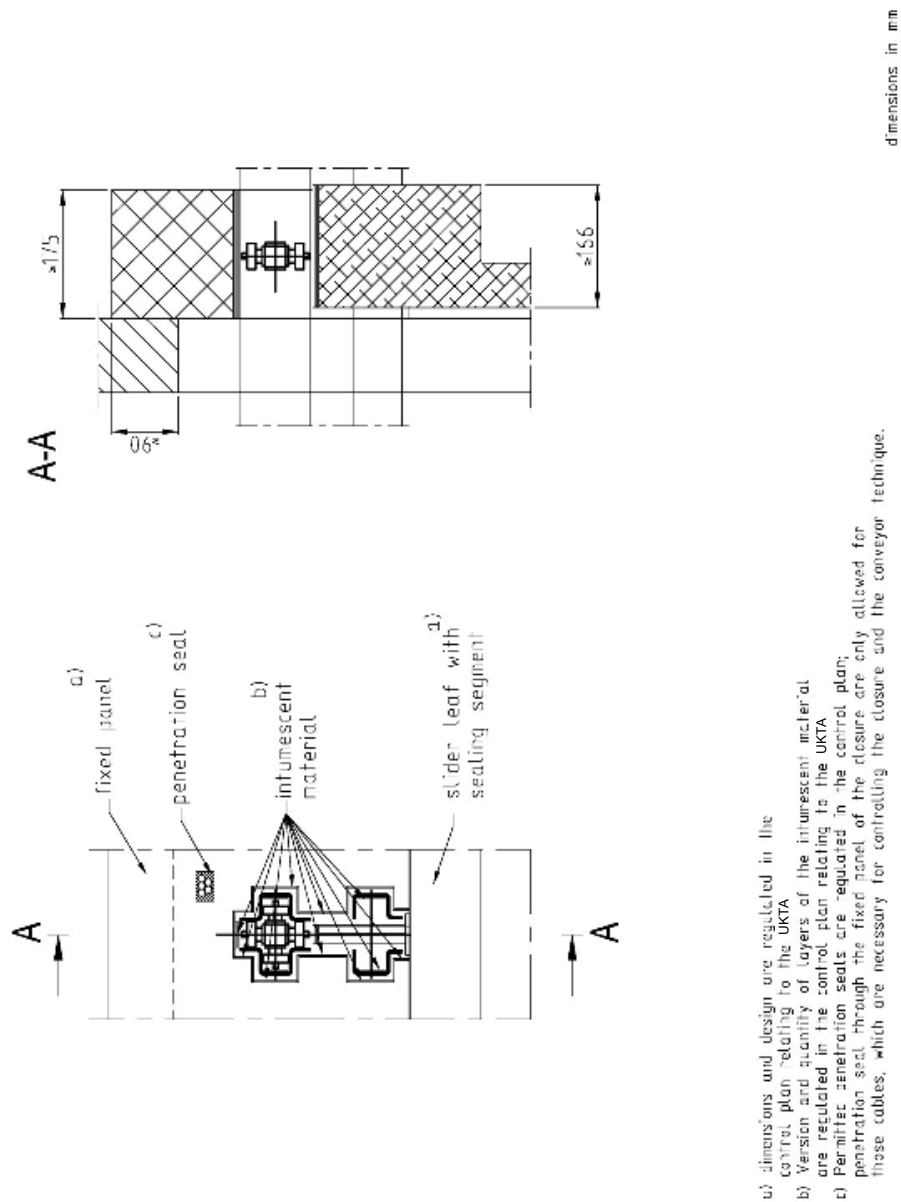


ANNEX 26

Detail – sealing of the continuous conveyor technique

- sealing segment and fixed panel for "power and free" - conveyor

This annex applies to the product described in the main body of the UK Technical Assessment.





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