Deutsches Institut für Bautechnik
Zulassungsstelle für Bauprodukte und Bauarten
Bautechnisches Prüfamt
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Authorised and notified according to Article 10 of the Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products (89/106/EEC)

Deutsches Institut für Bautechnik

DIBt

Mitglied der EOTA
Member of EOTA

European Technical Approval ETA-13/0015

English translation prepared by DIBt - Original version in German language

Handelsbezeichnung *Trade name*		VISS SG
Zulassungsinhaber *Holder of approval*		Jansen AG Stahlröhrenwerk, Kunststoffwerk Industriestraße 34 9463 Oberriet SG SCHWEIZ
Zulassungsgegenstand und Verwendungszweck *Generic type and use of construction product*		Fassade VISS SG - Geklebte Glaskonstruktion *Facade VISS SG - Structural Glazing*
Geltungsdauer: *Validity:*	vom *from* bis *to*	20 February 2013 20 February 2018
Herstellwerk *Manufacturing plant*		Jansen AG Stahlröhrenwerk, Kunststoffwerk Industriestraße 34 9463 Oberriet SG SCHWEIZ

Diese Zulassung umfasst *This Approval contains*	36 Seiten einschließlich 25 Anhänge *36 pages including 25 annexes*

I LEGAL BASES AND GENERAL CONDITIONS

1 This European technical approval is issued by Deutsches Institut für Bautechnik in accordance with:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products[1], modified by Council Directive 93/68/EEC[2] and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council[3];
- *Gesetz über das In-Verkehr-Bringen von und den freien Warenverkehr mit Bauprodukten zur Umsetzung der Richtlinie 89/106/EWG des Rates vom 21. Dezember 1988 zur Angleichung der Rechts- und Verwaltungsvorschriften der Mitgliedstaaten über Bauprodukte und anderer Rechtsakte der Europäischen Gemeinschaften (Bauproduktengesetz - BauPG) vom 28. April 1998[4], as amended by Article 2 of the law of 8 November 2011[5];*
- Common Procedural Rules for Requesting, Preparing and the Granting of European technical approvals set out in the Annex to Commission Decision 94/23/EC[6].

2 Deutsches Institut für Bautechnik is authorized to check whether the provisions of this European technical approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European technical approval and for their fitness for the intended use remains with the holder of the European technical approval.

3 This European technical approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1 of this European technical approval.

4 This European technical approval may be withdrawn by Deutsches Institut für Bautechnik, in particular pursuant to information by the Commission according to Article 5(1) of Council Directive 89/106/EEC.

5 Reproduction of this European technical approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of Deutsches Institut für Bautechnik. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European technical approval.

6 The European technical approval is issued by the approval body in its official language. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

1 Official Journal of the European Communities L 40, 11 February 1989, p. 12
2 Official Journal of the European Communities L 220, 30 August 1993, p. 1
3 Official Journal of the European Union L 284, 31 October 2003, p. 25
4 *Bundesgesetzblatt Teil I 1998*, p. 812
5 *Bundesgesetzblatt Teil I 2011*, p. 2178
6 Official Journal of the European Communities L 17, 20 January 1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of the product and intended use

1.1 Definition of the construction product

This European technical approval applies to the façade with the trade name VISS SG of the company Jansen AG, Oberriet, Switzerland. It is about a structural sealant glazing system. This European technical approval covers the mechanical fixing of the insulating glass units VARIO to a transom-mullion system (Annex 1).The manufacturing of the insulating glass units VARIO is regulated by ETA-10/0362.
The insulating glass units are punctually anchored to the structure at the construction site using retaining devices inserted into the U-profile. The self-weight of the insulating glass units being always supported by glazing supports.

The dimensions of the insulating glass units amount to at least 400 mm x 800 mm (width x height and height x width respectively) and at most 2500 mm x 5000 mm (width x height and height x width respectively).

1.2 Intended use

The angle of inclination to the vertical shall not exceed 10° with a slope to the inside. As overhead glazing a slope to the horizontal of 7° to 90° is possible, where in such a case laminated safety glass shall be used as lower pane, the provisions of the Member State shall be considered respectively. The structural bond shall not be permanently subject to tension.

The use of the insulating glass units for the stiffening of other building elements or as safety barrier is not covered by this ETA.

The insulating glass units may only be installed at construction heights approved for these types of construction according to the stipulations of the respective Member State. The stipulations of the respective Member State relating to the use of emergency retainers are to be observed.

The essential requirements applying to the façade VISS SG refer to safety in case of fire (Essential Requirement 2, abbreviated: ER 2), hygiene, health and the environment (ER 3), safety in use (ER 4), protection against noise (ER 5) and energy economy and heat retention (ER 6).

Type I and Type II (as defined in ETAG 002-1, Section 2.1) is covered by this ETA. Type I: mechanical transfer of the self-weight of the façade element to the support frame and/or structure and then to the substructure. The structural sealant transfers wind suction loads, and devices (emergency retainers) are used to reduce danger in the case of structural sealant failure. Type II: mechanical transfer of the self-weight of the façade element to the support frame and/or structure and then to the substructure. The structural sealant transfers wind suction loads, and no emergency retainers are used.

Regulatory restrictions of the Member States relating to the use of the insulating glass units are to be taken into consideration. The pane thickness and formats are to be adjusted under consideration of the field of application and the required actions.

1.3 Intended working life of the construction product

The provisions made in this European technical approval are based on an assumed working life of the façade VISS SG of 25 years, provided that the conditions laid down in sections 4.2/5.1/5.2/5.3 for packaging / transport / storage / installation / use / maintenance / repair are met. 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 construction.

2 Characteristics of the product and methods of verification

2.1 Product characteristics

2.1.1 Insulating glass units

The insulating glass units VARIO according to the European technical approval ETA-10/0362 are to be used. The specified provisions of this ETA have to be observed.

In the area of the load-bearing insulating glass edge U-profiles made of stainless steel are glued. The U-profiles can have upstands, which bite into the lateral slot of the external insulating glass pane. These upstands serve for the external pane as mechanical protection and carry the wind loads in case of bond failure. The insulating glass units with U-profile and without upstands are used for type II; the insulating glass units with U-profile and with upstands are used for type I.

2.1.2 Retaining devices made of stainless steel

Wind suction loads are transferred by retaining devices made of stainless steel grade 1.4301, which extend into the U-profiles of the insulating glass units VARIO. There are two different types of the retaining devices. One is called T retaining device (Art. No. 452.165) and the other is called L retaining device (Art. No. 452.166). The minimum strength class S275 shall apply for the retaining devices. The thickness of the retaining device T shall not go below a value of 3.90 mm and for the retaining device L not below 3.65 mm. The anchoring depth of 9 mm into the U-profile of the insulating glass unit VARIO shall be met.

Segmented glazing with an angle of +/-5° according to Annexes 19 and 20 is permissible using the T retaining devices.

2.1.3 Fixing to the substructure

For fixing the retaining devices according to 2.1.2 to the frame profiles of the façade there are four options:

- Dovetail joint with the anchor bolt VISS SG according to Annex 2
- Welded joint according to Annex 5
- Screwed fastening with stud bolt VISS Basic according to Annex 8
- Screwed and rivetted joint according to Annex 11

The anchor bolt VISS SG of the dovetail joint is inserted into the groove of the VISS-profile and is distorted clockwise. The anchor bolt VISS SG is made of stainless steel grade 1.4305 with a creep limit of 400 MPa and an ultimate tensile strength of 600 MPa according to table 16 of EN 10088-3[7].

[7] EN 10088-3:2005 Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes

The welded stud of the welded joint is fixed to the substructure by welding with drawn arc according to EN ISO 14555[8]. The welded stud is made of stainless steel grade 1.4307 of the strength class S460 according Z-30-3-6[9].

The screwed fastening is used for profiles with a sheet thickness of 3 mm and thicker. The stud bolt VISS Basic is screwed directly into the tapped thread of the frame profile of the façade. The stud bolt VISS Basic is made of stainless steel grade 1.4305 with a creep limit of 400 MPa and an ultimate tensile strength of 600 MPa according to table 16 of EN 10088-3.

The screwed and rivetted joint is used for profiles with a sheet thickness between 2 and 3 mm. In this case the stud bolt VISS Basic is screwed into a blind rivet nut M6 made of zinc coated steel, which was set in place before.

2.1.4 Glazing supports

For bearing the self-weight of the insulating glass units VARIO there are six different glazing supports available:

- Glazing support for dovetail joints according to Annex 14
- Glazing support for welded joints according to Annex 15
- Glazing support for screwed fastening according to Annex 16
- Glazing support for screwed and rivetted joint according to Annex 16
- Glazing support made of flat steel welded into a dovetailed profile Annex 14
- Glazing support made of flat steel welded to the frame profiles of the façade Annex 15

As contact material polypropylene setting blocks are used for which compatibility with the load-bearing silicone sealant has to be verified. For instance the standard block GLSV of polypropylene by Gluske BKV GmbH, Wuppertal, can be used as contact material. The measurement of the supporting device depends on the total thickness of the insulating glass unit. It shall be ensured that the outer pane of the insulating glass unit is supported to at least two thirds of the pane thickness. It shall not be padded in the area of U-profile.

2.1.5 Joint sealing

After assembly, the joints between infill elements are to be sealed using one of the sealants mentioned below:

- DC 791 (Dow Corning) or
- DC 797 (Dow Corning)

2.1.6 Emergency retainers

For the loading case of bond failure the horizontal wind forces are absorbed and passed on by emergency retainers. As emergency retainers there are upstands of 40 mm at the U-profile according ETA-10/0362, which bite into the lateral slot of the external insulating glass pane.

The necessity to use such emergency retainers is regulated by the respective Member States. In Germany, these are required for all sealed infill elements installed at heights of 8 m or more.

[8] EN ISO 14555:2006 Welding - Arc stud welding of metallic materials

[9] Z-70.3-6 (20/04/2009) Allgemeine bauaufsichtliche Zulassung "Erzeugnisse, Verbindungsmittel und Bauteile aus nichtrostenden Stählen"; DIBt

2.2 Method of verification

2.2.1 General

The assessment of the fitness for the intended use of the infill elements in relation to the essential requirements for safety in case of fire (ER 2), for hygiene, health and the environment (ER 3), for safety in use (ER 4), protection against noise (ER 5) and for energy economy and heat retention (ER 6) has been made in accordance with the "Guideline for European Technical Approval for Structural Sealant Glazing Kits" (ETAG 002-1).

2.2.2 Safety in case of fire (ER 2)

According to Commission Decision 96/603/EC, glass will be classified in category A1 and the silicone sealant of the insulating glass units VARIO according ETA-10/0362 and the joint sealing as per Section 2.1.5 are assigned to class F.

The resistance to fire can only be assessed for the entire façade construction and shall be verified separately.

Note: A European reference fire scenario for facades has not been laid down. In some Member States the classification of "VISS SG" according to EN 13501-1[10] might not be sufficient for the use in facades. An additional assessment of "VISS SG" according to national provisions (e.g. on the basis of a large scale test) might be necessary to comply with Member States regulations, until the existing European classification system has been completed.

2.2.3 Hygiene, health and the environment (ER 3)

Relating to "Dangerous substances" the manufacturer of the infill elements has made a declaration of compliance with the Council Directive 76/769/EEC of 27 July 1976 published with amendments in the EC Official Journal.

Note: In addition to the specific clauses relating to dangerous substances contained in this European technical approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Directive, these requirements need also to be complied with, when and where they apply.

2.2.4 Safety in use (ER 4)

2.2.4.1 General

The stability of the infill elements and their anchorage to the structure shall be verified by taking particular account of the following:

- self-weight,
- wind (pressure and suction) ,
- temperature,
- exposure to climatic conditions.

The required number and the distances of the U-profiles and screw-retaining devices respectively shall be determined following structural design calculation (2.2.4.2, 2.2.4.3 and 2.2.4.4).

In the context of issuing this ETA the verification of impact safety of the structure was not performed.

The regulations in the Member States, in which the structural sealant glazing kit is used, shall be observed.

[10] EN 13501-1:2010 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

2.2.4.2 Insulating glass units

The glass panes and the structural sealing of VARIO as well as the emergency retainers shall be dimensioned for the actions in accordance with the provisions of ETA-10/0362.

2.2.4.3 Retaining devices and fixing to the substructure

The effects of actions according to section 2.2.4.1 shall be calculated for retaining devices according to section 2.1.2 and for the U-profiles of the insulating glass units VARIO according ETA-10/0362. For the load bearing capacity of the U-profiles a limitation is given in ETA-10/0362.

The load bearing capacity of the retaining device T is 3.31 kN and of the retaining device L it is 1.23 kN. Determining these values for resistance the following safety factors are included:

- 1.33 in case of the breakage of the screw
- 1.10 in case of the compliance criterion
- 1.33 in case of other failure

For fixing the retaining devices to the substructure the stipulations of section 2.1.3 are to be observed. For the structural system of the retaining device and its fixing to the substructure the bearing capacity of the retaining device is decisive for the design, not the fixing.

2.2.4.4 Glass supports

In the following table the bearing capacity of the glass supports are listed. The specified safety factors are respected on the resistance side. The stated values for the bearing capacity apply for the number of bolts referred to in the table.

The glass supports VISS SG are installed in pairs. The glass supports with welded bolts or stud bolts can be installed either in pairs or solitary.

The specifications according Section 2.1.4 shall be observed.

Glass supports	**Number**	**Decisive test**	**Safety factor**	**Bearing capacity [kN]**
VISS SG 50x50x2	1 pair	Failure	1,33	1,32
VISS SG 150x60x2,75	1 pair	Compliance criterion	1,1	1,09
Schweißbolzen 50x50x3	3	Failure	1,33	2,57
Schraubbolzen 50x50x3	3	Compliance criterion	1,1	2,77
Schraubbolzen + Niet 50x50x2	3	Compliance criterion	1,1	1,34
Flachstahl 50x50x2	1	Failure	1,33	7,73
Flachstahl 150x60x2,75	1	Compliance criterion	1,1	16,57

2.2.4.5 Deflection

For limiting the deflection the provisions of ETA-10/0362 shall be observed.

2.2.4.6 Air permeability, watertightness

Class AE as per EN 12152[11] has been determined for the air permeability of closed façades.

Class RE 1200 as per EN 12154[12] has been determined for the watertightness.

[11] EN 12152:2002 Curtain walling - Air permeability - Performance requirements and classification
[12] EN 12154:1999 Curtain walling - Watertightness - Performance requirements and classification

2.2.5 Protection against noise (ER 5)

In the context of issuing this ETA the verification of performance capacities of the protection against noise was not performed. For the verification of the entire façade structure, regarding the protection against noise, the regulations of the Member States shall apply.

2.2.6 Energy economy and heat retention (ER 6)

The total thermal transmittance U_{CW} of the façade construction is to be determined as per EN 13947[13]. The following values determined for infill elements using insulating glass units can be used for dimensioning:

VISS SG, coated steel, width of the profile: 50 mm, thickness of the infill element: 32 mm and depth of the frame: 137 mm: U_f = 1.5 W/(m²K)

For the verification of the entire façade structure, regarding the energy economy and thermal insulation, the regulations of the Member States shall apply.

3 Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the decision of the European Commission of 24.06.1996 published in the Official Journal of the European Communities L 254 of 08.10.1996 the system 2+ of attestation of conformity for structural sealant glazing kit according to type I of ETAG 002-1 and the system 1 of attestation of conformity for type II of the ETAG 002-1 apply. These systems are defined in the following:

System 1: Certification of the conformity of the product by a notified body on the basis of:

(a) Tasks for the manufacturer:
- (1) factory production control;
- (2) further testing of samples taken at the factory by the manufacturer in accordance with a prescribed test plan;

(b) Tasks for the notified body:
- (3) initial type-testing of the product;
- (4) initial inspection of factory and of factory production control;
- (5) continuous surveillance, assessment and approval of factory production control;

System 2+: Declaration of conformity of the product by the manufacturer on the basis of:

(a) Tasks for the manufacturer:
- (1) initial type-testing of the product;
- (2) factory production control;
- (3) testing of samples taken at the factory in accordance with a prescribed test plan.

(b) Tasks for the notified body:
- (4) certification of factory production control on the basis of:
  - initial inspection of factory and of factory production control;
  - continuous surveillance, assessment and approval of factory production control.

[13] DIN EN 13947:2007-07 Thermal performance of curtain walling - Calculation of thermal transmittance

3.2 Responsibilities

To ensure that the product is in conformity with this European technical approval the following controls are required.

The regulations for VARIO are defined in ETA-10/0362 and the related control plan.

The manufacturer may only use the initial / raw / constituent materials stated in the technical documentation of this European technical approval.

Tasks for the assessment of conformity for system 1

	Tasks	Contents
Manufacturer	Factory production control	Permanent internal control of production; type scope, frequency and documantation of the tests are laid down in the control plan. Involvement of a body approved for the field of structural sealant glazing systems in accordance with the control plan.
	Testing of samples taken at the factory	Testing of samples taken at the factory in accordance with a prescribed control plan.
Notified Body	Initial type-testing of the product	Execution and documentation of the tests in accordance with the control plan by an approved body.
	Initial inspection of factory and factory production control	The notified body has to verify that the factory, in particular the staff and equipment, and the factory production control, are suitable to ensure continuous and orderly manufacturing of the products in compliance with the provisions given in section 2.1 and in the Annexes of the European technical approval.
	continuous surveillance, assessment and approval of factory production control	The notified body shall perform at least twice a year a surveillance at the factory. It shall be verified that the factory production control is maintained taking into account the specified control plan.
	EC certificate of conformity	Issuing an EC certificate of conformity of the product.

Tasks for the assessment of conformity for system 2+

	Tasks	Contents
Manufacturer	Initial type-testing of the product	Execution and documentation of the tests in accordance with the control plan.
	Factory production control	Permanent internal control of production; type scope, frequency and documentation of the tests are laid down in the control plan. Involvement of an approved body for the field of structural sealant glazing systems in accordance with the control plan.
	Testing of samples taken at the factory	Testing of samples taken at the factory in accordance with a prescribed control plan.
Notified Body	Initial inspection of factory and factory production control	The notified body has to verify that the factory, in particular the staff and equipment, and the factory production control, are suitable to ensure continuous and orderly manufacturing of the products in compliance with the provisions given in section 2.1 and in the Annexes of the European technical approval.
	continuous surveillance, assessment and approval of factory production control	The notified body shall perform at least twice a year a surveillance at the factory. It shall be verified that the factory production control is maintained taking into account the specified control plan.
	EC certificate of conformity	Granting of EC certificate for the factory production control.

The EC certificartes and the results of the factory production control and the continuous surveillance shall be submitted by the notified body or the manufacturer to the Deutsches Institut für Bautechnik, on request.

In cases where the provisions of the European technical approval and its control plan are no longer fulfilled, the certificate of conformity has to be invalidated and Deutsches Institut für Bautechnik has to be informed.

3.3 CE marking

The CE marking shall be affixed on the product itself, on the label attached to it, on the packaging or on the accompanying document. The letters "CE" shall be accompanied by the following additional information:

- the name and address of the manufacturer (legal entity responsible for the manufacturer) and the manufacturing plant,
- the last two digits of the year in which the CE marking was affixed,
- the number of the EC certificate of conformity for the product (system 1),
- the number of the EC certificate for the factory production control (system 2+),
- the number of the European technical approval,
- identification of the product "VISS SG".

4 Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1 Manufacturing

The European technical approval is issued for the product on the basis of agreed information, deposited with Deutsches Institut für Bautechnik, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited information being incorrect, should be notified to Deutsches Institut für Bautechnik before the changes are introduced. Deutsches Institut für Bautechnik will decide whether or not such changes affect the approval and consequently the validity of the CE marking on the basis of the approval, and if so whether further assessment or alterations to the approval shall be necessary.

Observing the provisions laid down in ETA-10/0362 the insulating glass units VARIO may only be manufactured in plants mentioned there.

4.2 Installation

The infill elements shall be fixed to the supporting structure according to the processing guidelines of the company Jansen AG in such a manner that no restraints may occur in the elements. The installation shall be performed by experts only, which have been trained for these works by the company Jansen AG.

The insulating units VARIO shall not be installed in an environment with high chloride content (e.g. indoor pools).

5 Indications to the manufacturer

5.1 General

The manufacturer is to ensure that all participants are instructed in the special stipulations of this European technical approval.

5.2 Packaging, transport and storage

The manufacturer shall take suitable precautions for packaging, transport and storage to ensure that glass elements are protected against damage by, e.g. breakage, scratching, splitting or contamination.

Suitable arrangements have to be made to prevent the application of unacceptable loads to the structural seal, for example the provision of suitable racks, and to prevent exposure to water, solar radiation or significant changes of temperature, by protecting with covers.

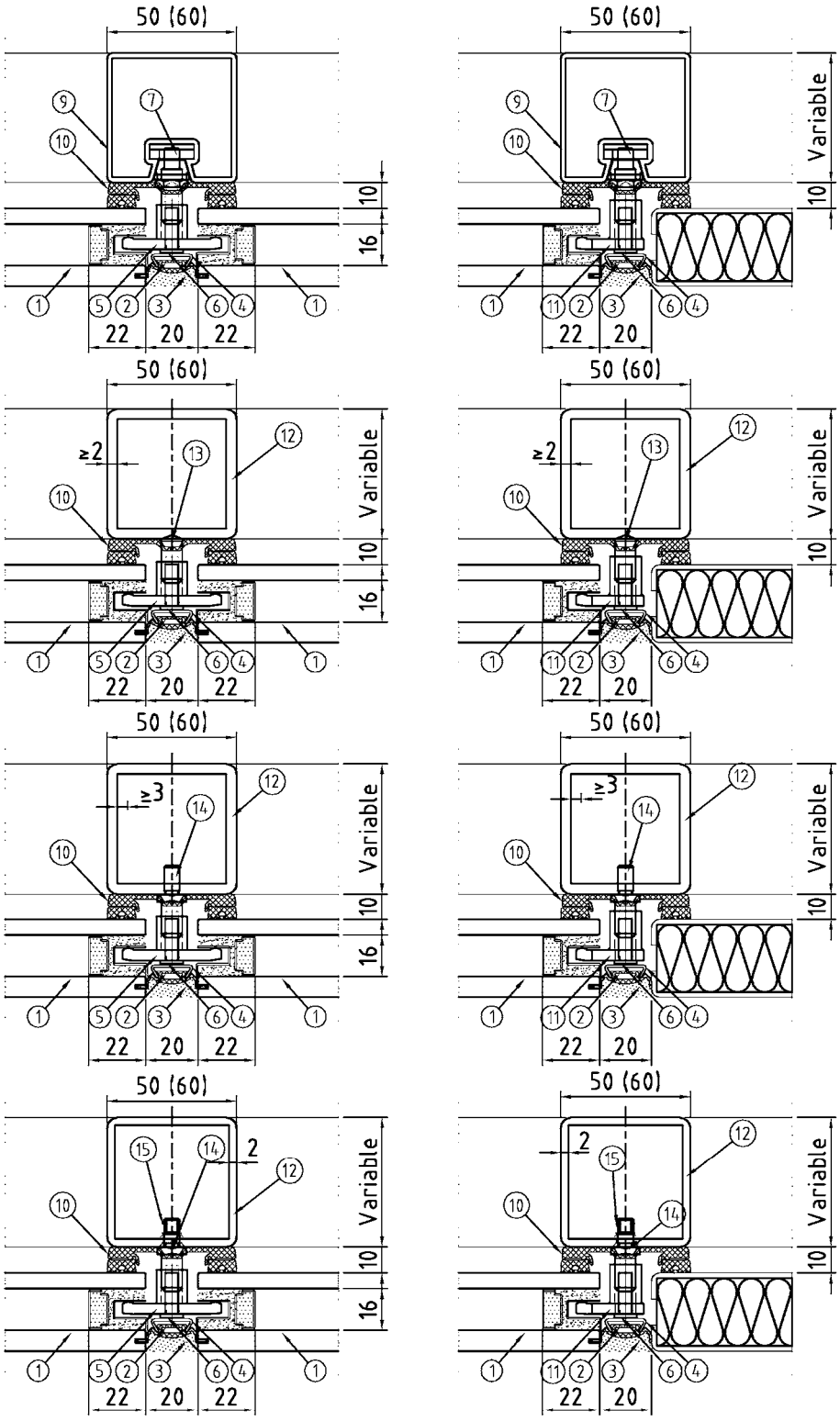
5.3 Use, maintenance, repair

The cleaning of the façade may only be performed by using water with the addition of not more than 1 % surface-active agents without any other chemical additives and/or any aggressive cleaning methods (e.g. blast-cleaning with steam pressure).

Georg Feistel
Head of Department

beglaubigt:
Herr

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

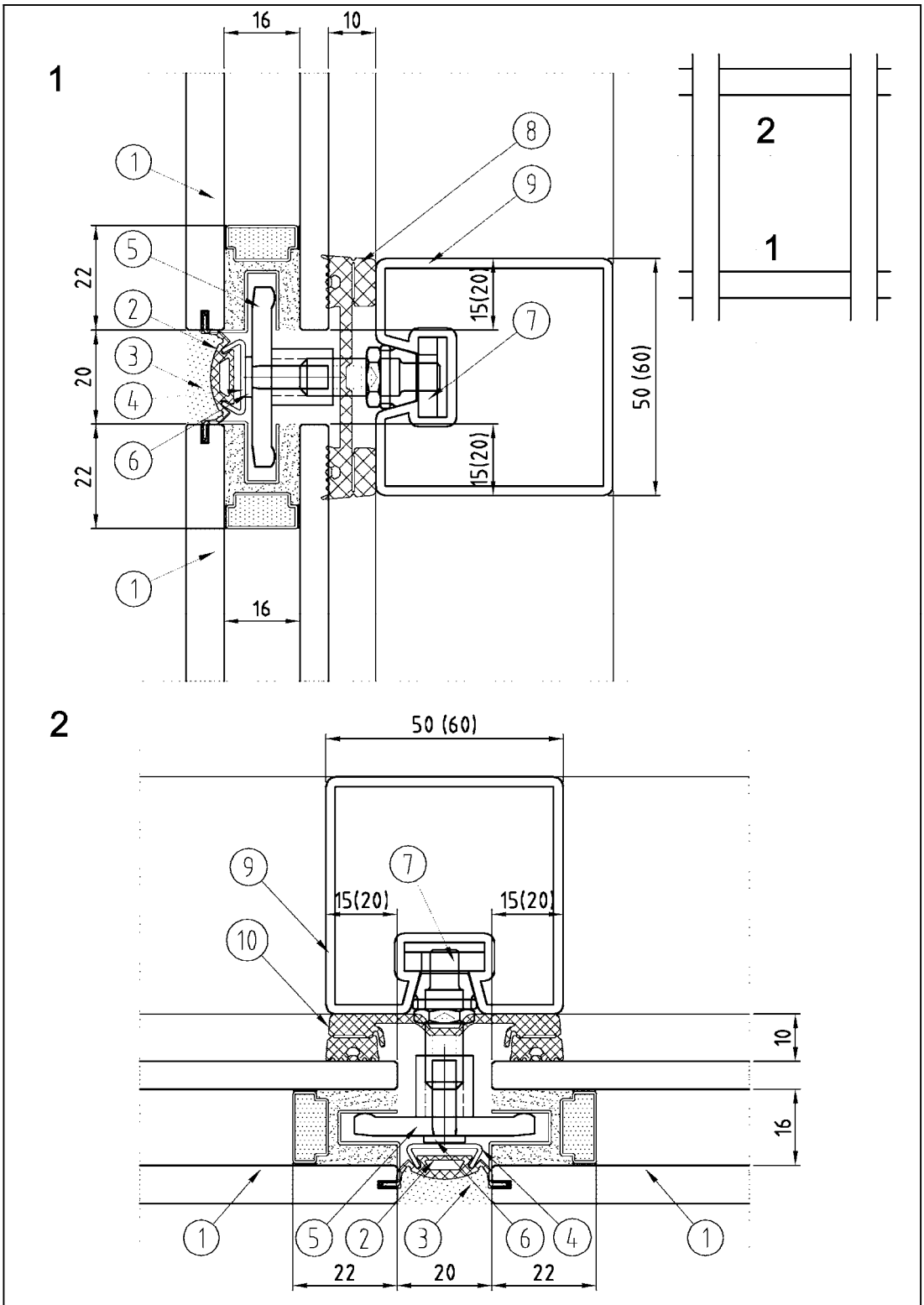
all dimensions in mm

"JANSEN VISS-SG"

- Fastenings-Art-

Annex 1

Deutsches Institut für Bautechnik



Item list see Annex 25

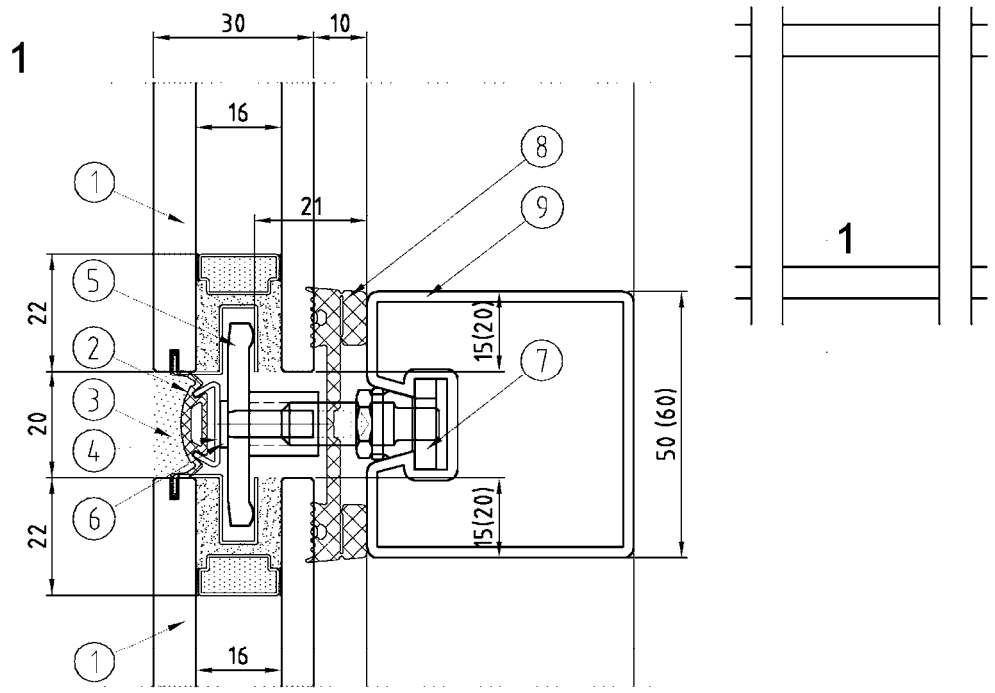
all dimensions in mm

"JANSEN VISS-SG"

- Sectional drawing 50 (60)mm-

Annex 2

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

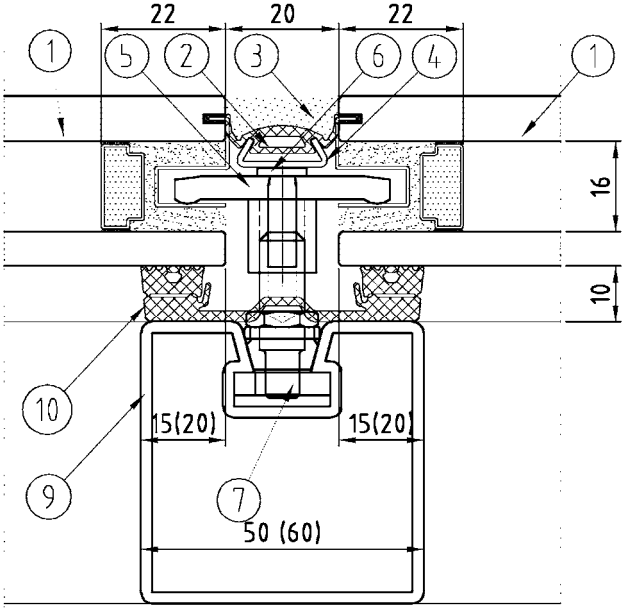
all dimensions in mm

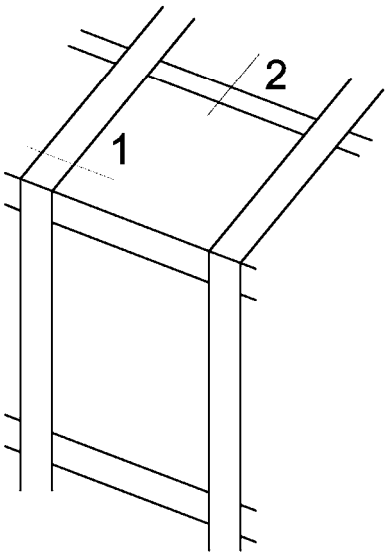
"JANSEN VISS-SG"
- Sectional drawing 50 (60)mm-
- Glass thickness 30(21)mm-70(57)mm -

Annex 3

Deutsches Institut für Bautechnik DIBt

1





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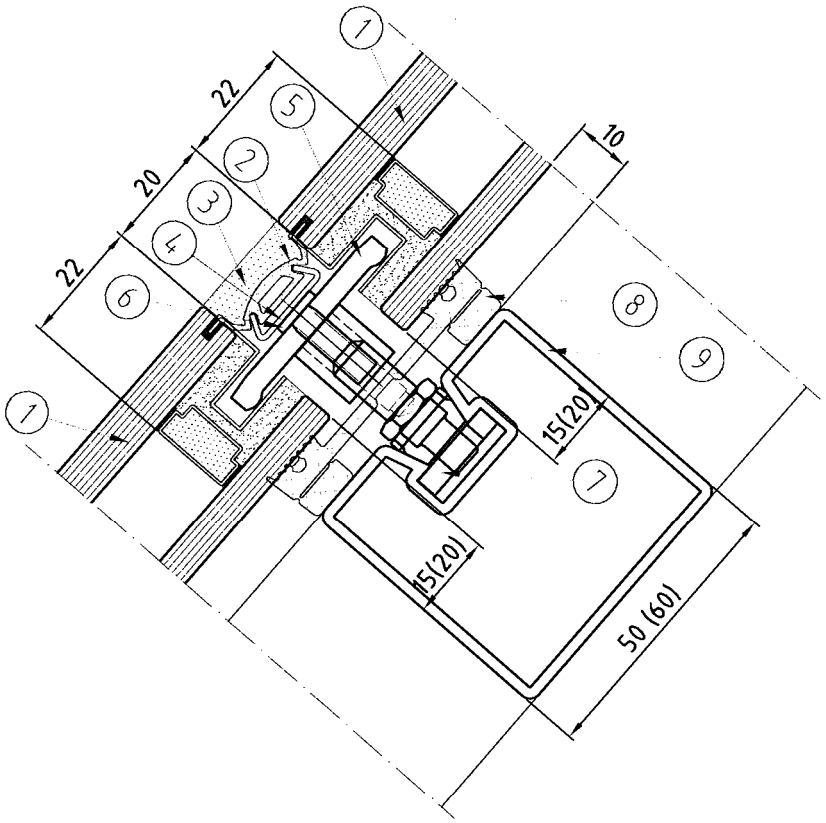


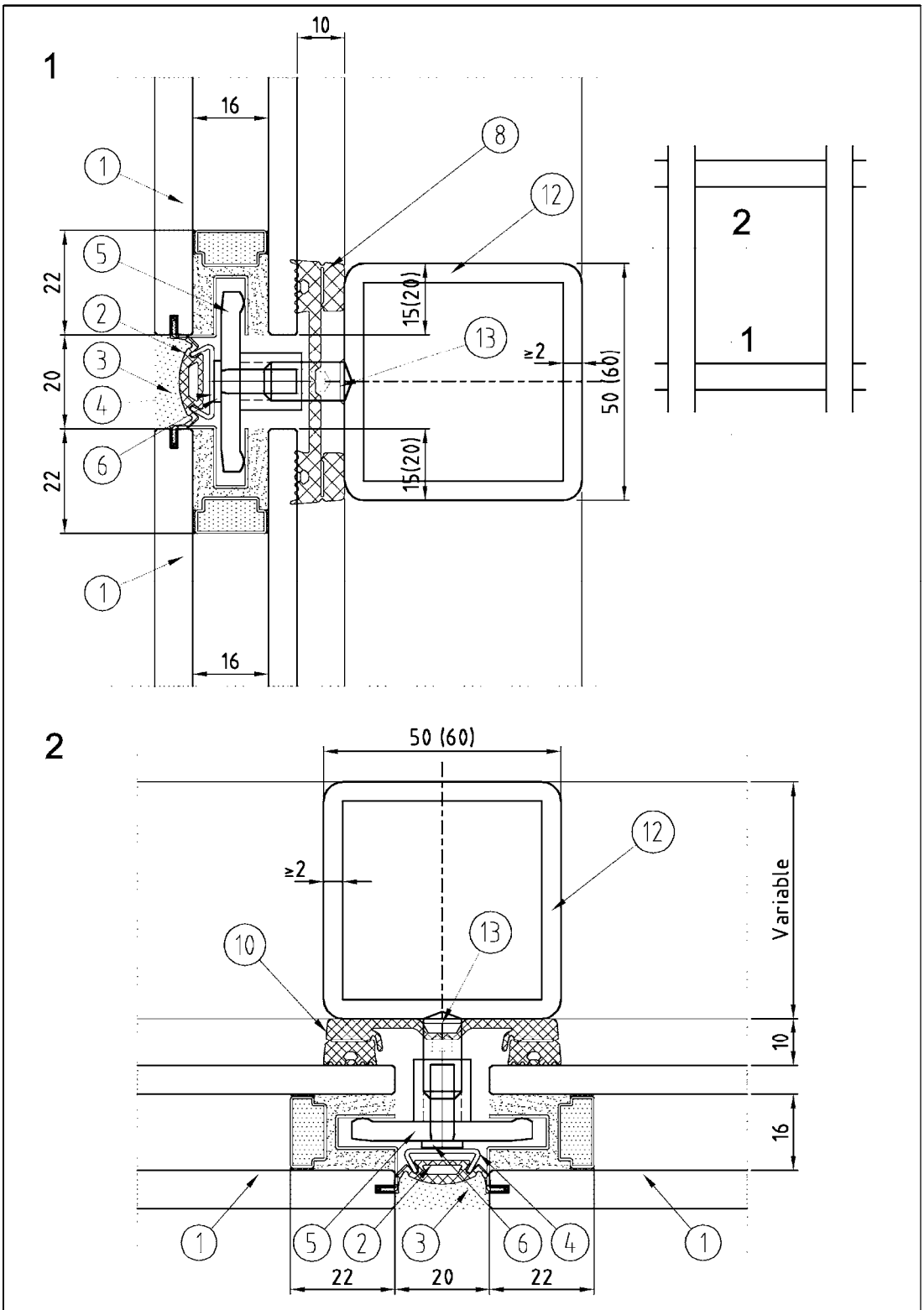
Item list see Annex 25

all dimensions in mm

"JANSEN VISS-SG"
- Sectional drawing 50 (60)mm-

Annex 4

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

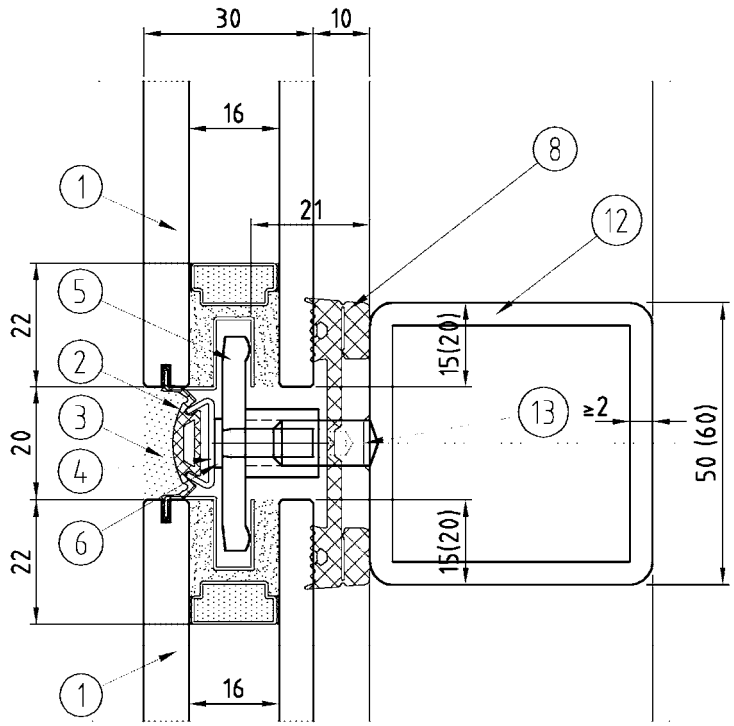
all dimensions in mm

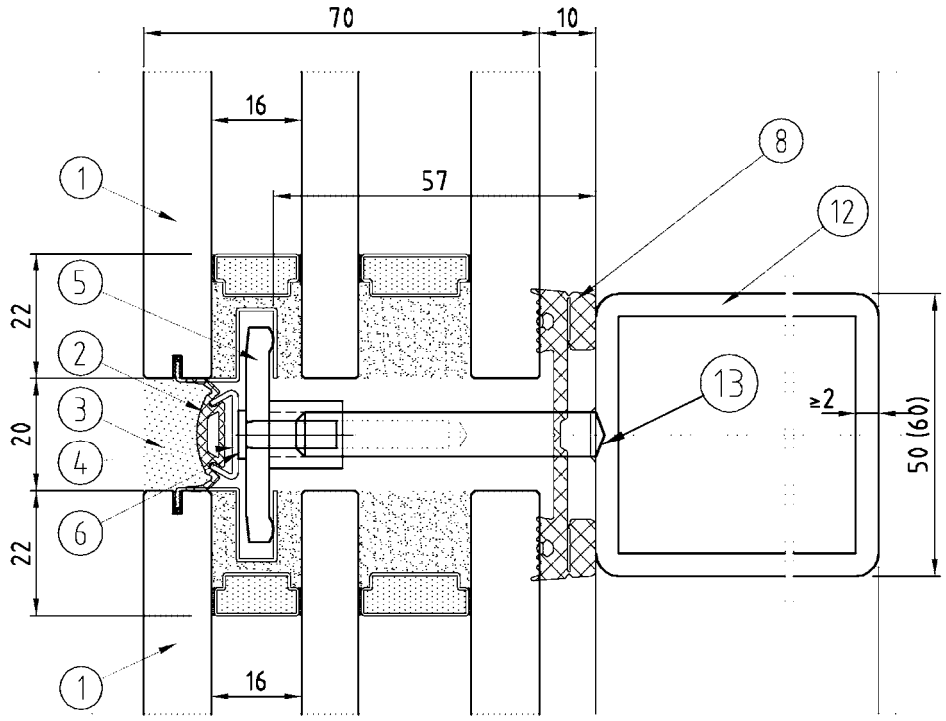
"JANSEN VISS-SG"

"VISS Basic - Welding stud"
- Sectional drawing 50 (60)mm-

Annex 5

Deutsches Institut für Bautechnik DIBt





Item list see Annex 25

all dimensions in mm

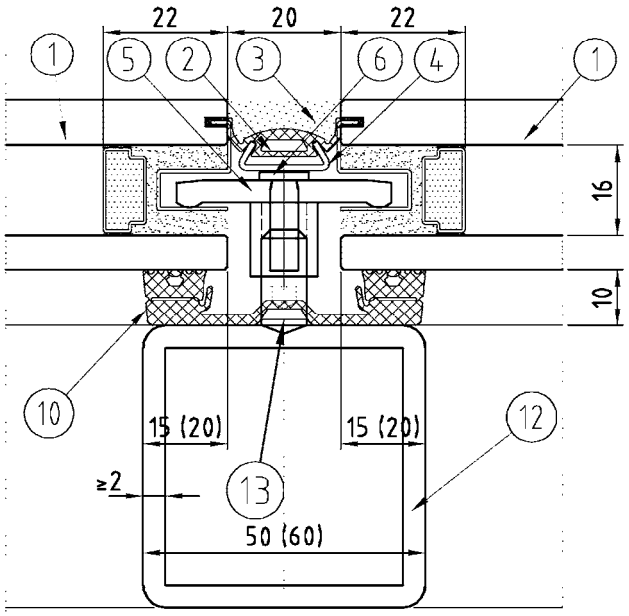
"JANSEN VISS-SG"

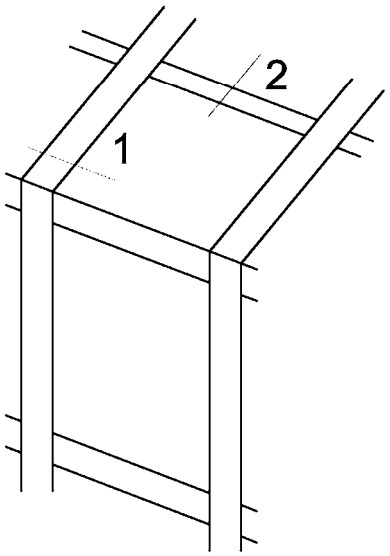
"VISS Basic 50 (60) mm - Welding stud"
- Glass thickness 30(21)mm-70(57)mm -

Annex 6

Deutsches Institut für Bautechnik DIBt

1





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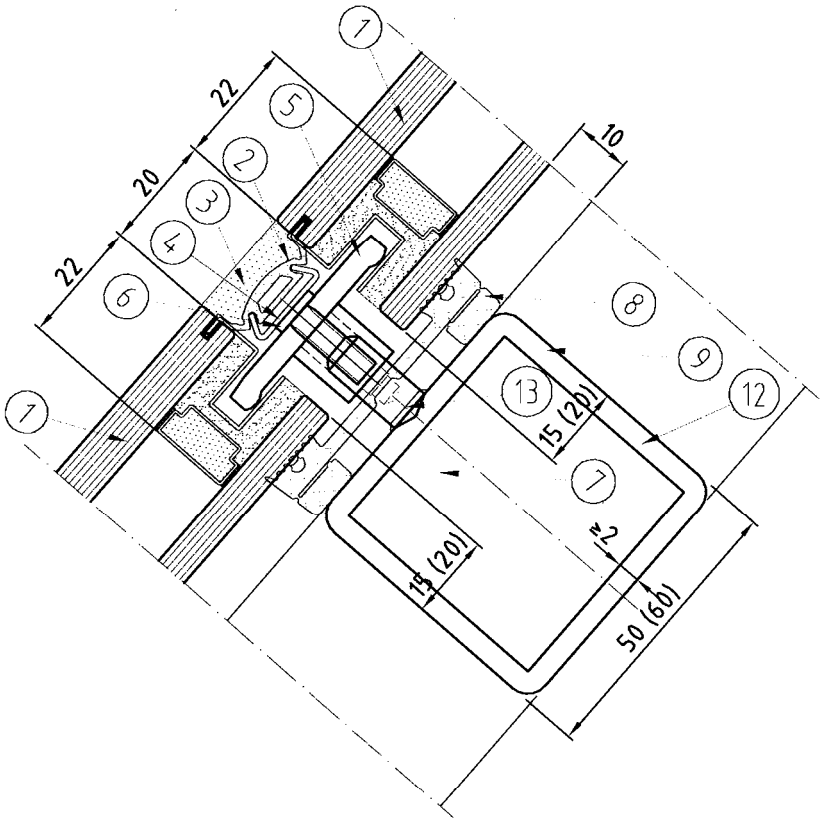


Item list see Annex 25

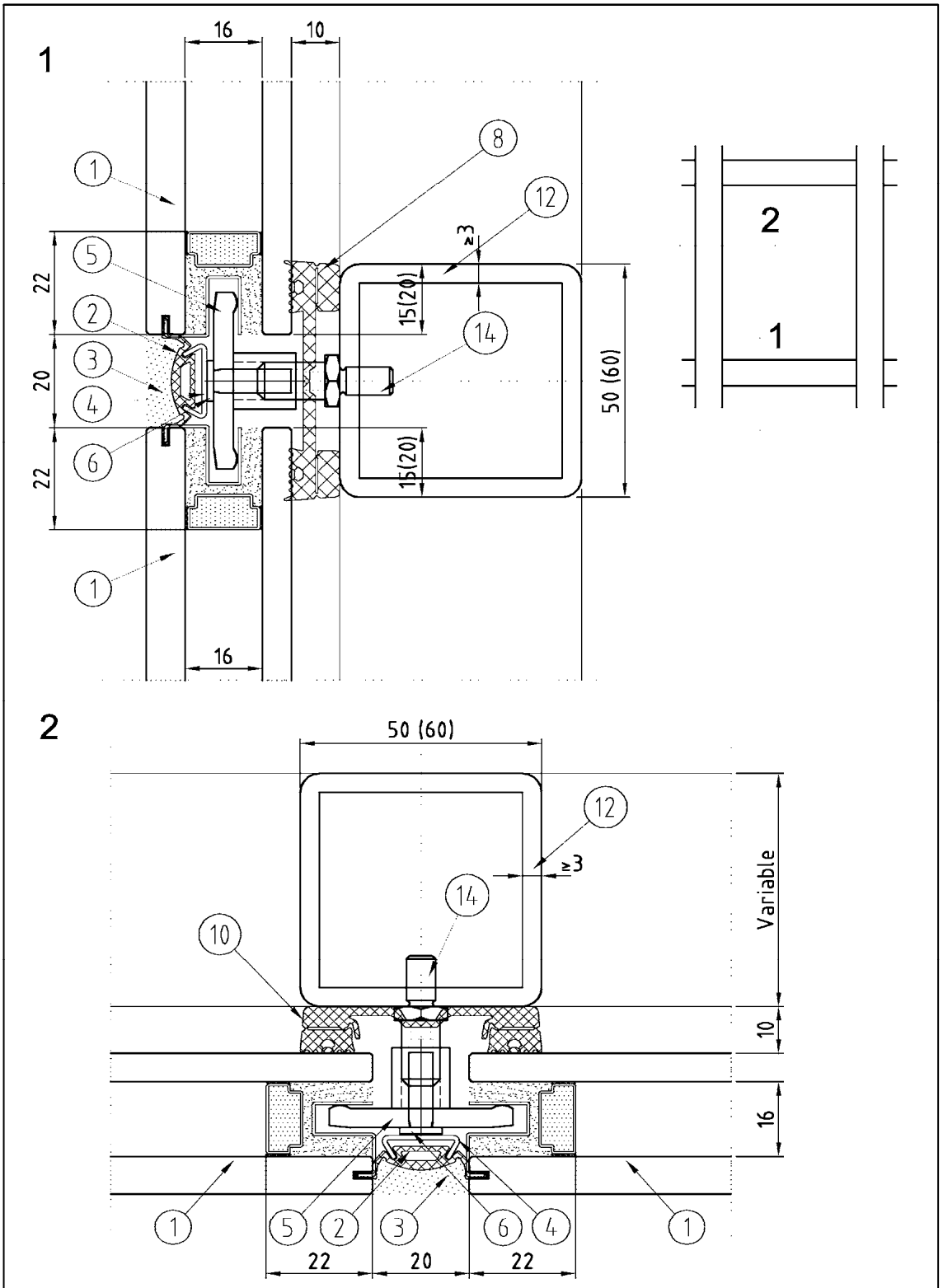
all dimensions in mm

"JANSEN VISS-SG"

"VISS Basic - Welding stud"
- Sectional drawing 50 (60)mm-

Annex 7

Deutsches Institut für Bautechnik



Item list see Annex 25

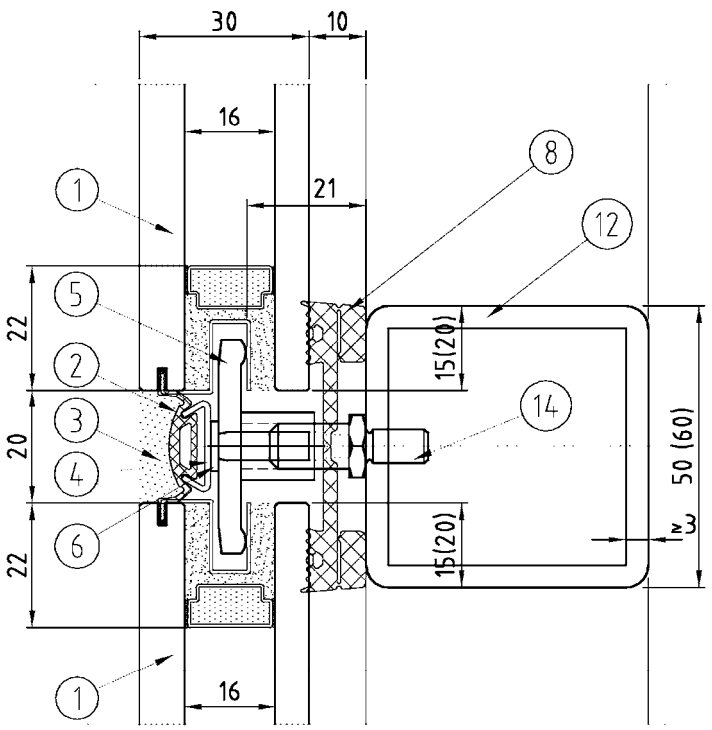
all dimensions in mm

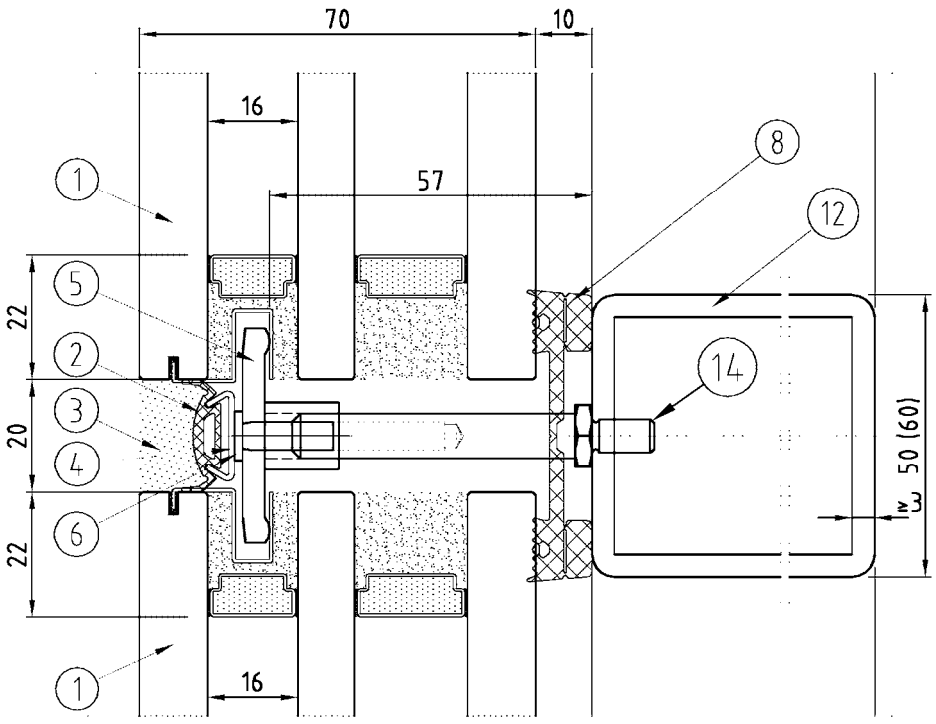
"JANSEN VISS-SG"

"VISS Basic - Screw bolt"
- Sectional drawing 50 (60)mm-

Annex 8

Deutsches Institut für Bautechnik





Item list see Annex 25

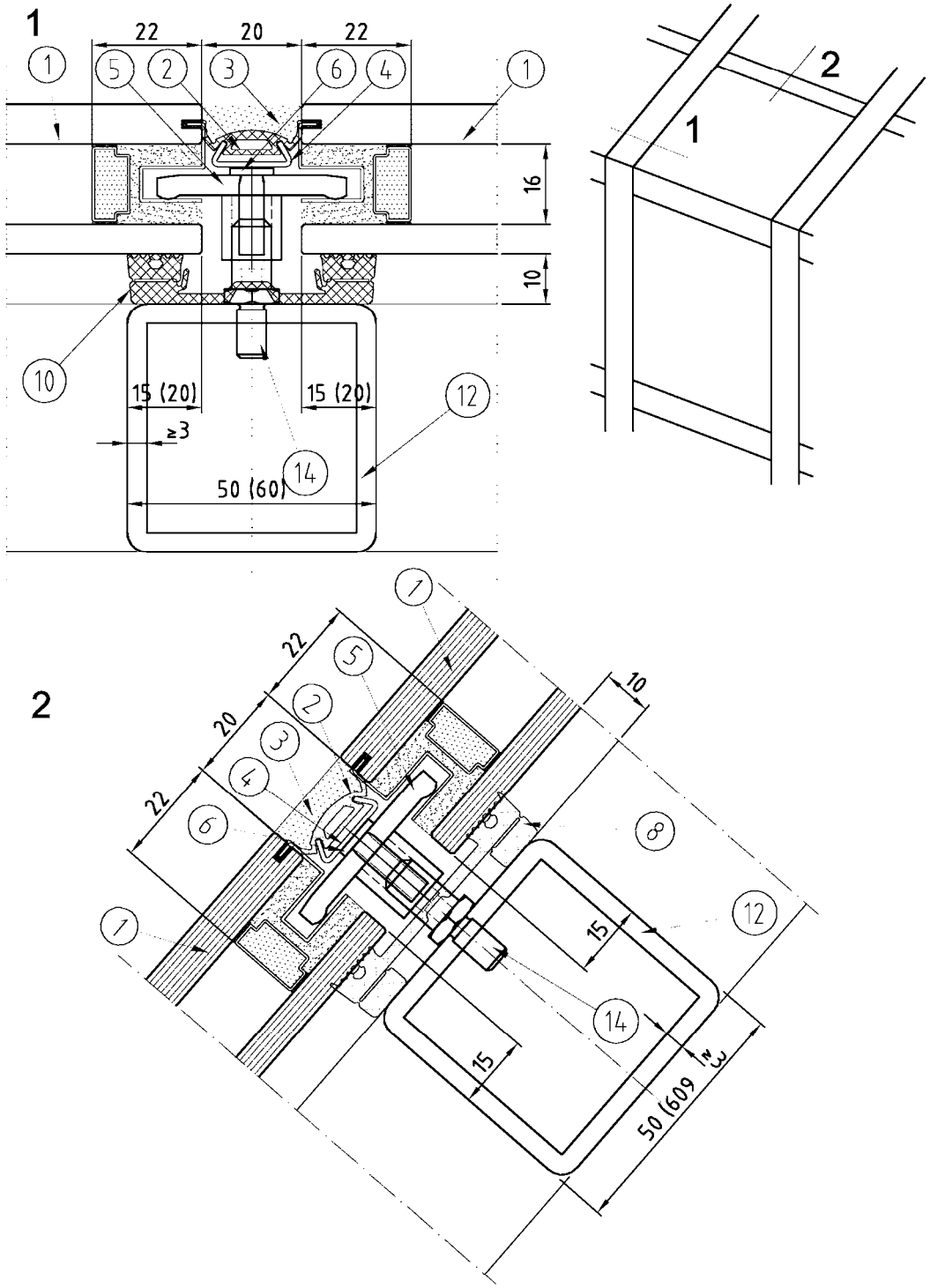
all dimensions in mm

"JANSEN VISS-SG"

"VISS Basic 50 (60) mm - Screw bolt"
- Glass thickness 30(21)mm-70(57)mm -

Annex 9

Deutsches Institut für Bautechnik DIBt



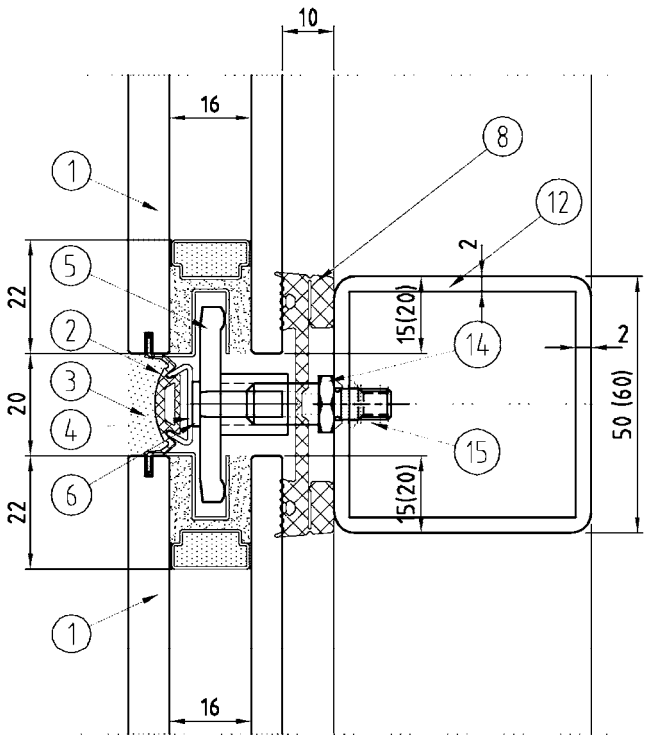
Item list see Annex 25

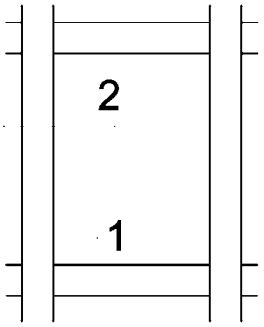
all dimensions in mm

"JANSEN VISS-SG" "VISS Basic - Screw bolt" - Sectional drawing 50 (60)mm-	Annex 10

Deutsches Institut für Bautechnik DIBt

1





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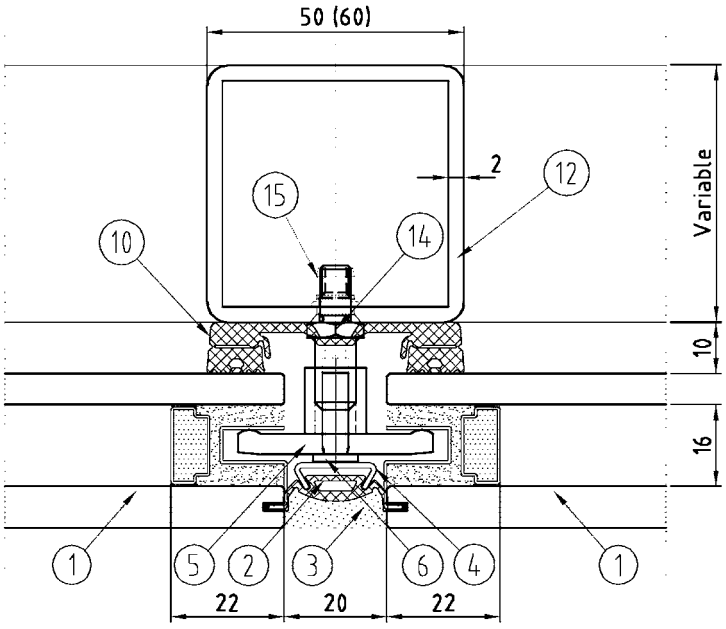
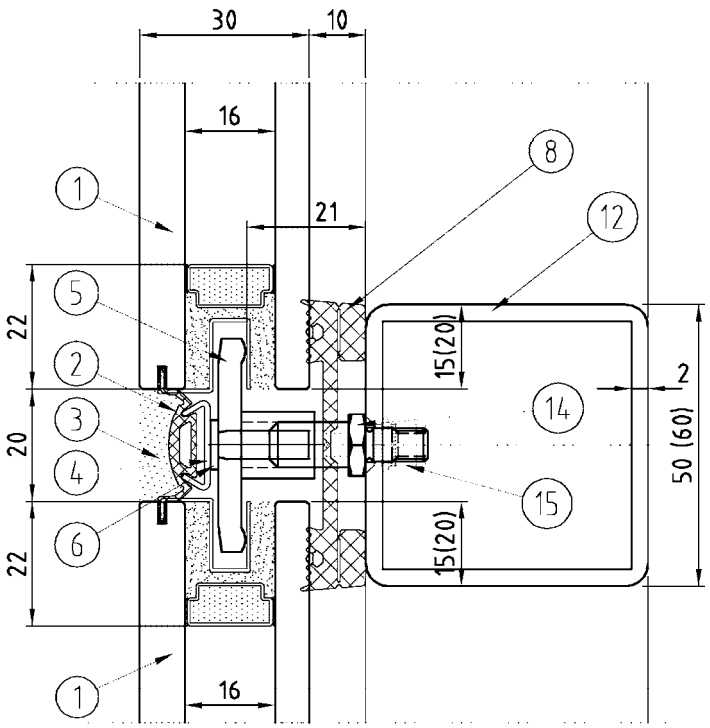


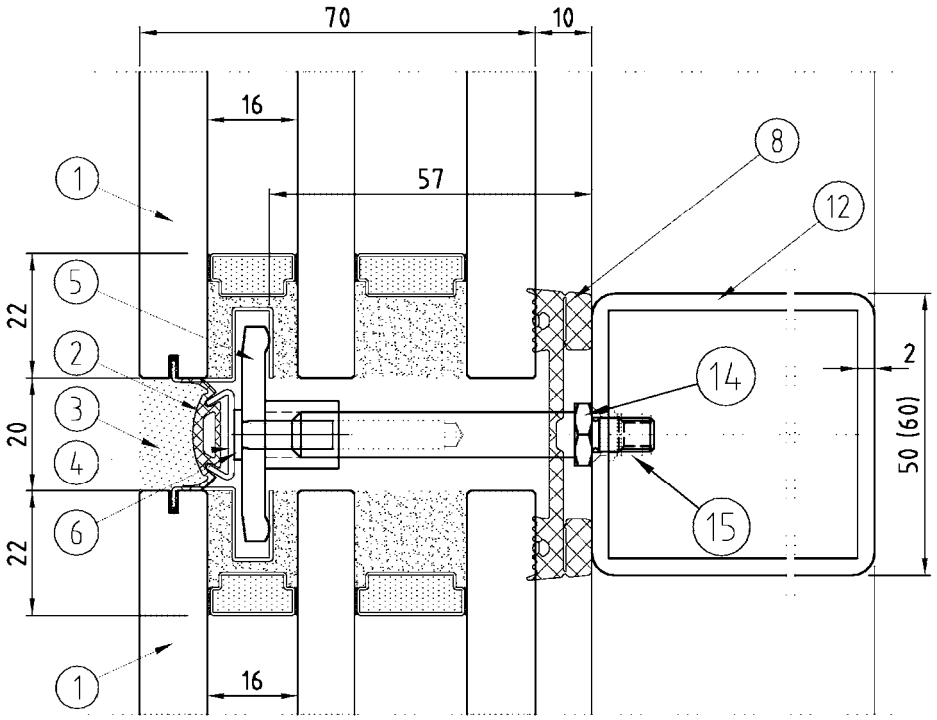
Item list see Annex 25

all dimensions in mm

"JANSEN VISS-SG" "VISS Basic (Supporting structure 2mm)-Screw bolt" - Sectional drawing 50 (60)mm-	Annex 11

Deutsches Institut für Bautechnik DIBt





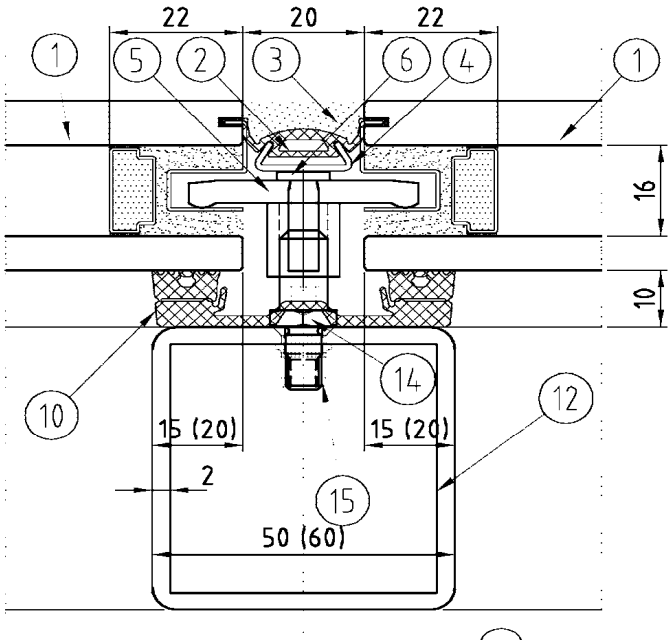
Item list see Annex 25

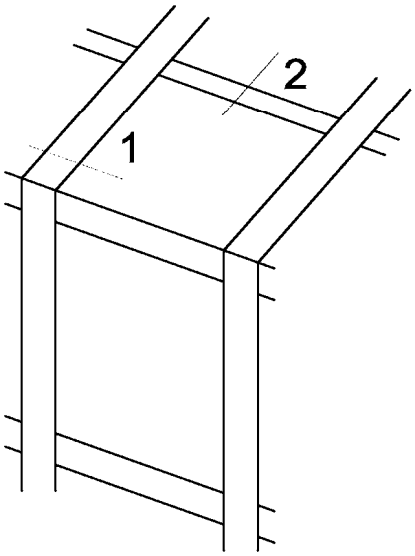
all dimensions in mm

"JANSEN VISS-SG" "VISS Basic (Supporting structure 2mm)-Screw bolt" - Glass thickness 30(21)mm-70(57)mm -	Annex 12

Deutsches Institut für Bautechnik DIBt

1





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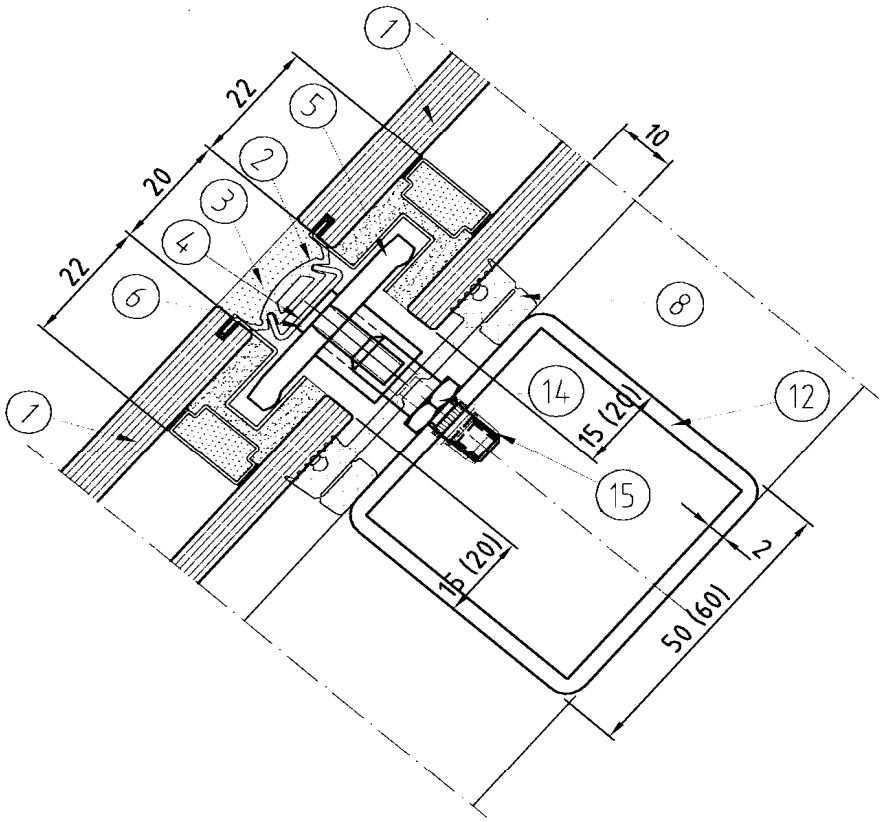
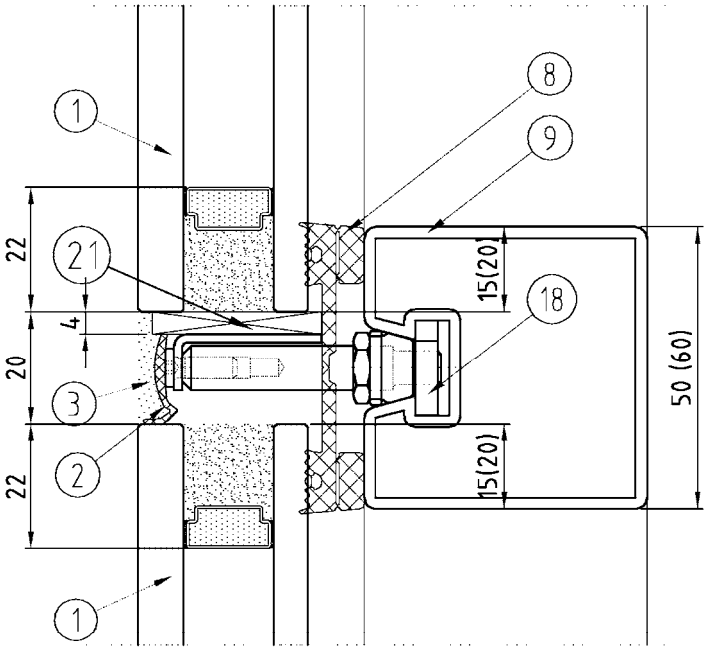


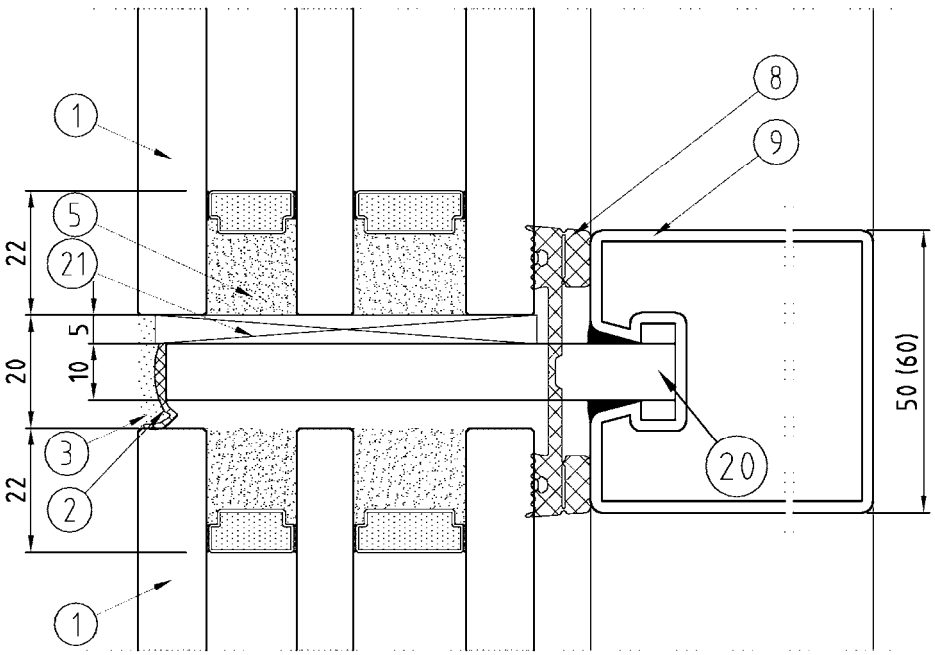
Item list see Annex 25

all dimensions in mm

"JANSEN VISS-SG" "VISS Basic (Supporting structure 2mm) - Screw bolt" - Sectional drawing 50 (60)mm-	Annex 13

Deutsches Institut für Bautechnik DIBt





Item list see Annex 25

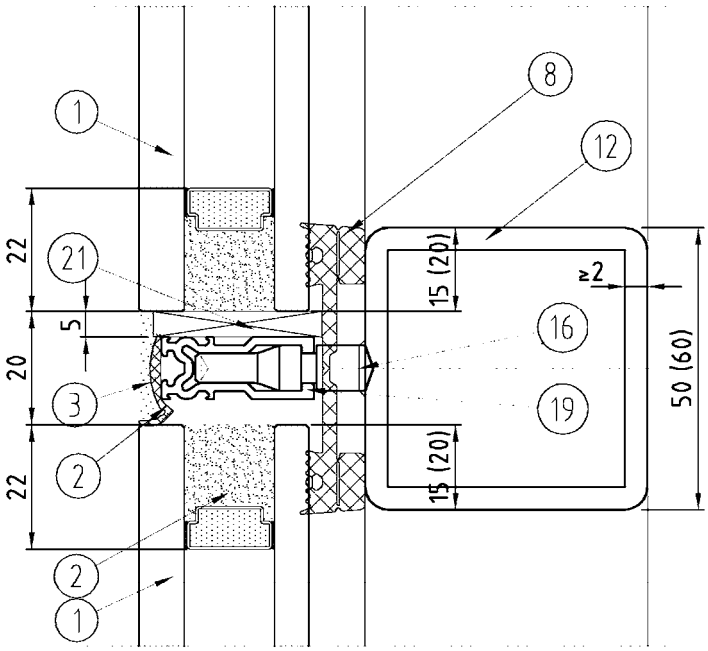
all dimensions in mm

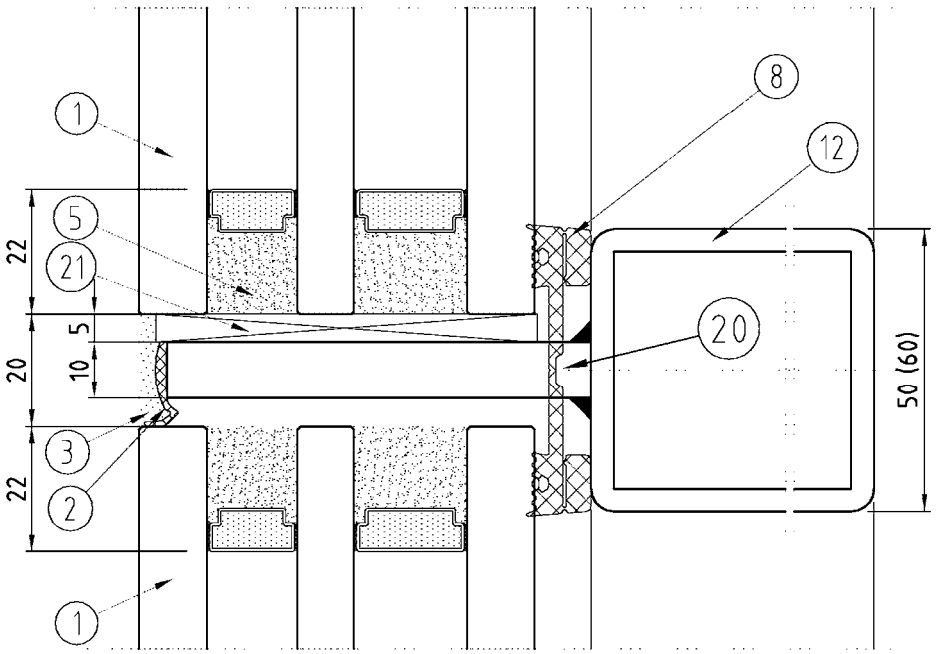
"JANSEN VISS-SG"

- Glazing support -
- Sectional drawing 50 (60)mm-

Annex 14

Deutsches Institut für Bautechnik DIBt



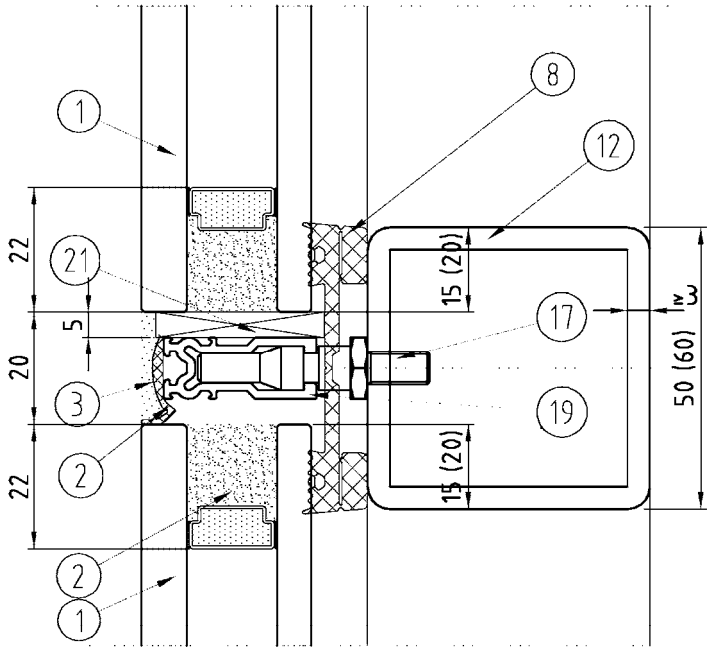


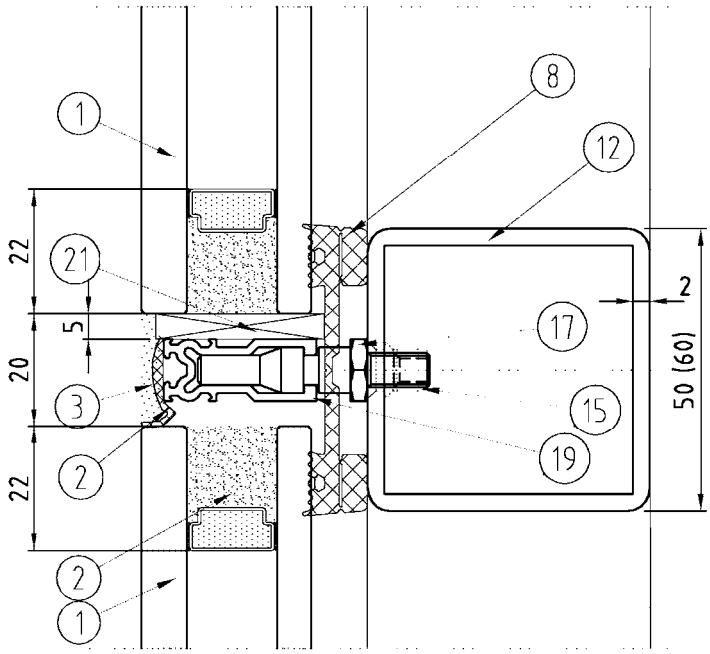
Item list see Annex 25

all dimensions in mm

"JANSEN VISS-SG" "VISS Basic 50 (60) mm- Welding supporting bolt" - Glazing support-	Annex 15

Deutsches Institut für Bautechnik DIBt





Item list see Annex 25

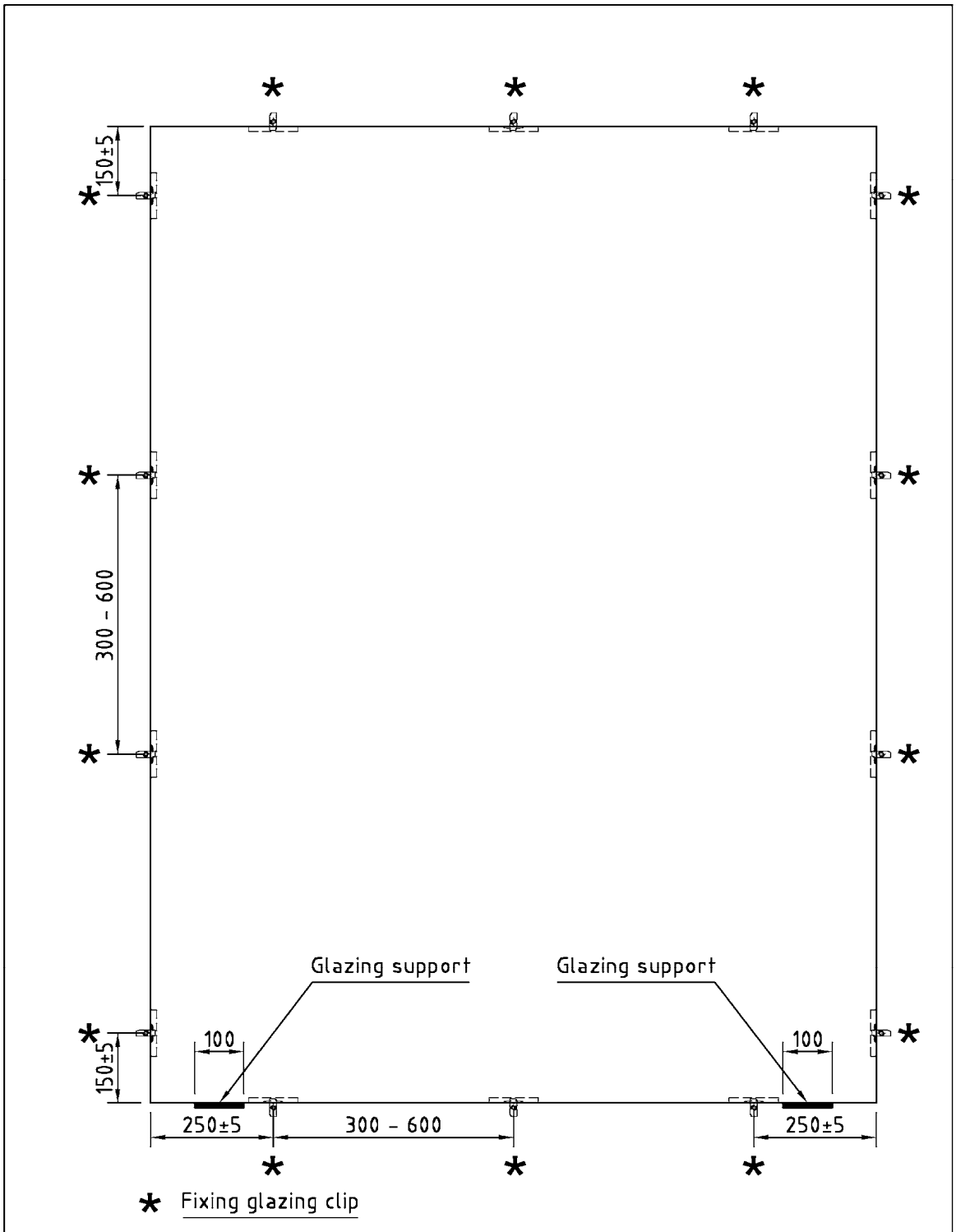
all dimensions in mm

"JANSEN VISS-SG"

"VISS Basic 50 (60) mm- Screw supporting bolt"
- Glazing support-

Annex 16

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

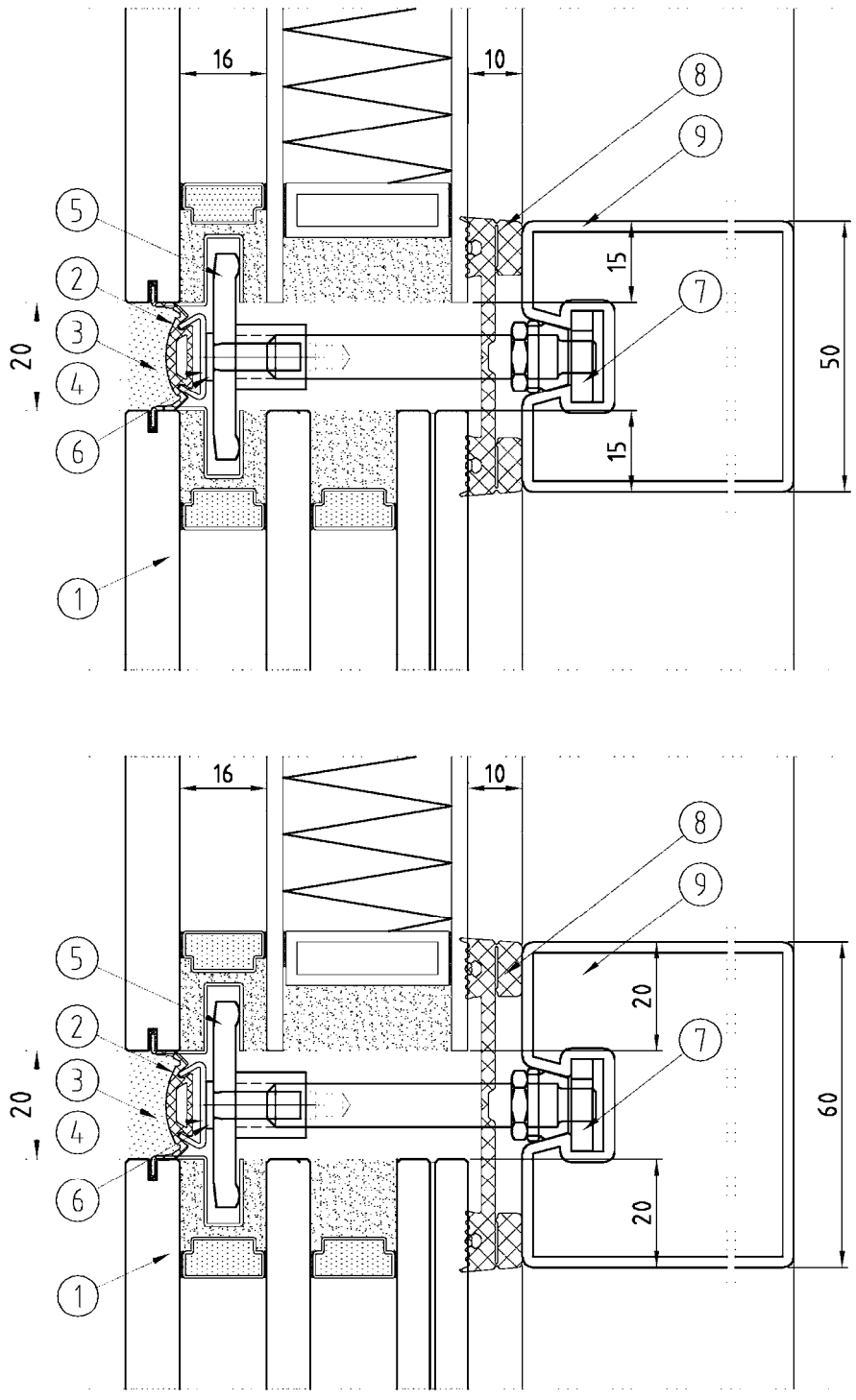
all dimensions in mm

"JANSEN VISS-SG"

"Position fixing glazing clip and glazing support"

Annex 17

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

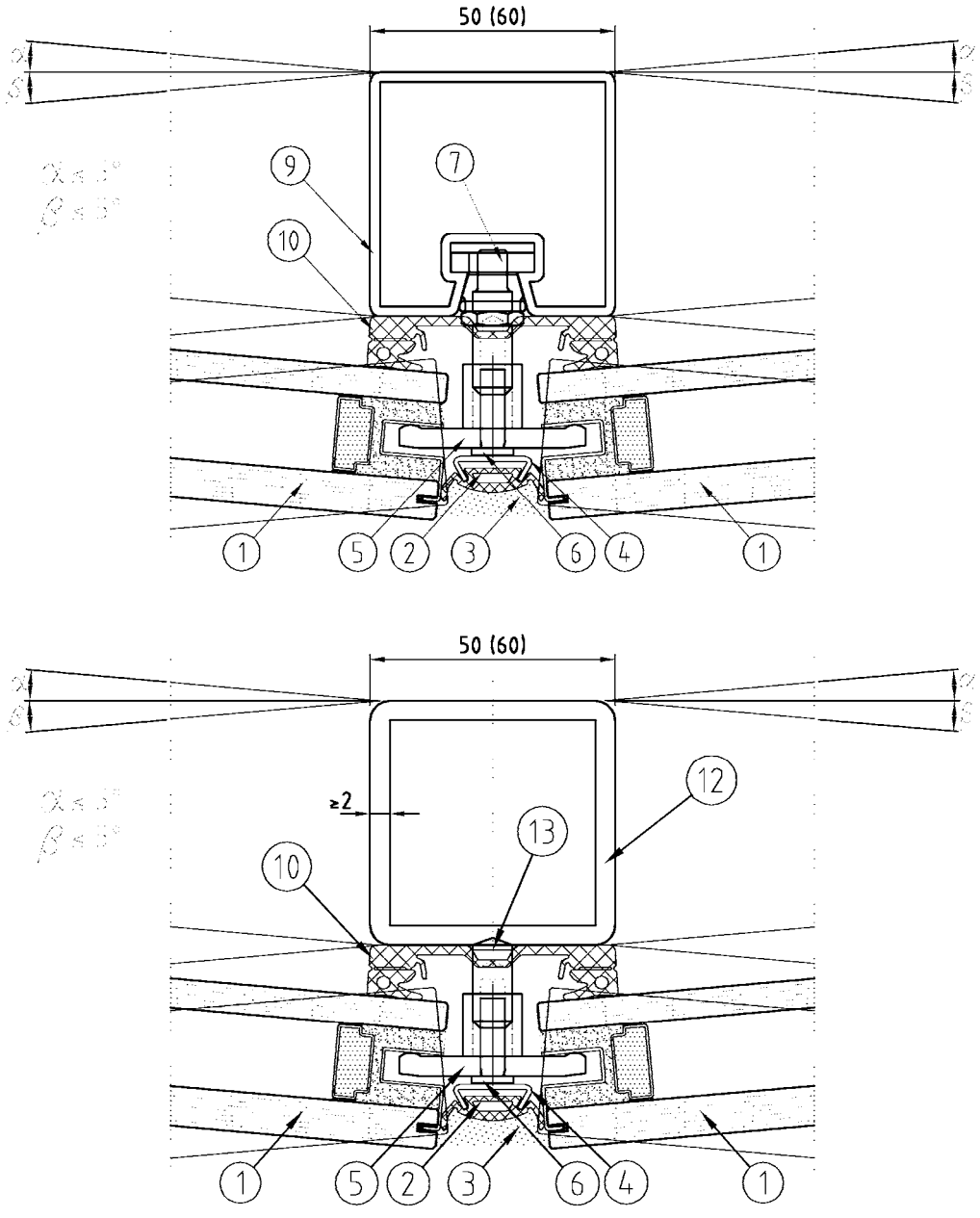
all dimensions in mm

"JANSEN VISS-SG"

- Panel -

Annex 18

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

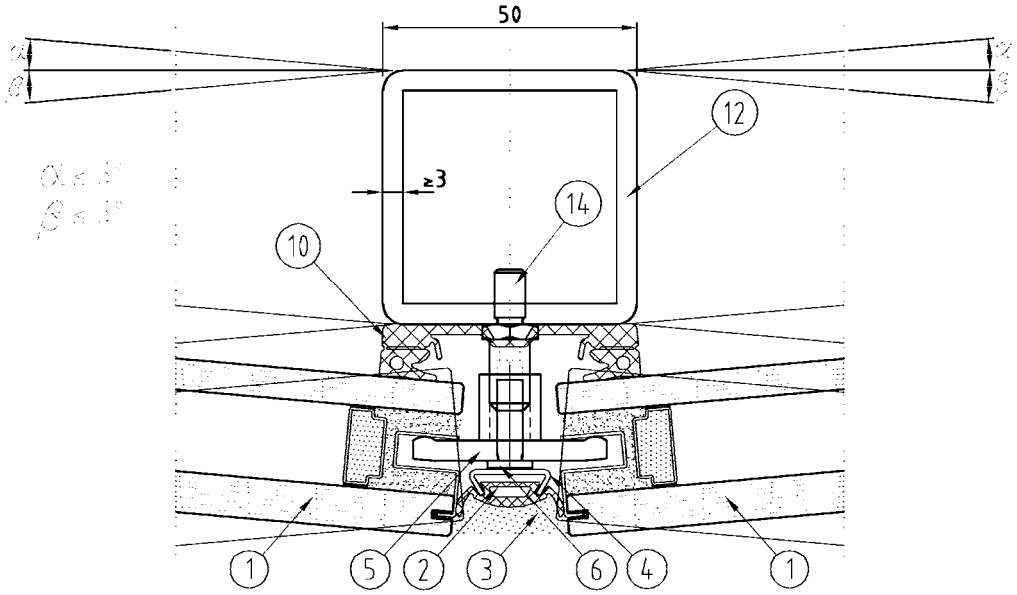
all dimensions in mm

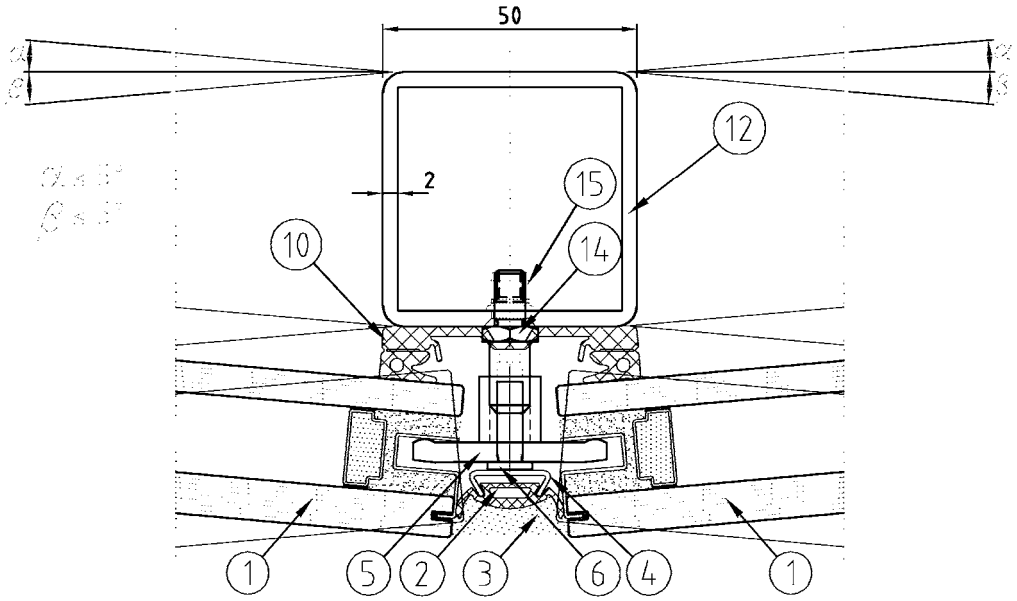
"JANSEN VISS-SG"

- Segmental glazing -
- Sectional drawing 50 (60)mm-

Annex 19

Deutsches Institut für Bautechnik





Item list see Annex 25

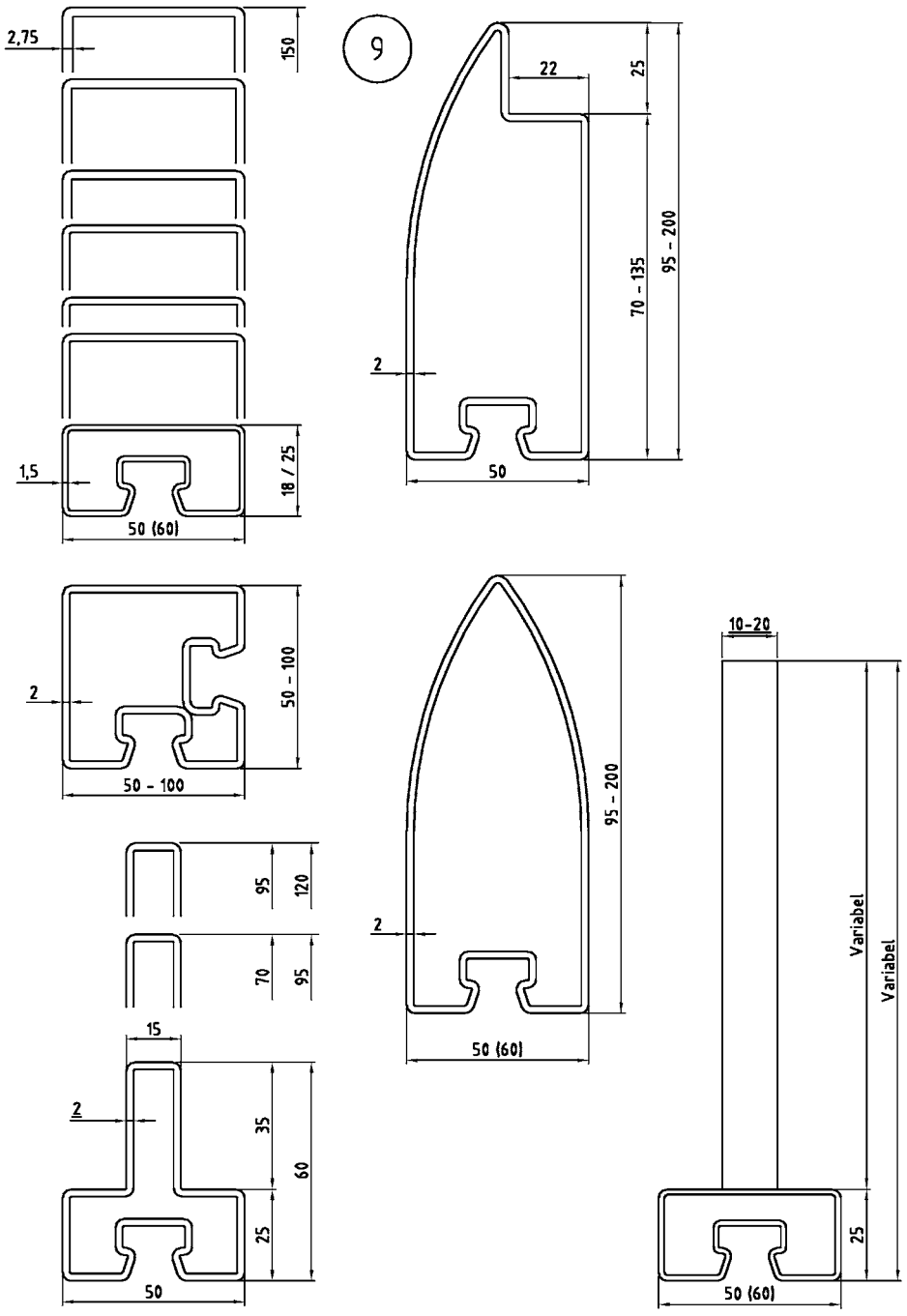
all dimensions in mm

"JANSEN VISS-SG"
"VISS Basic - Screw bolt"

- Segmental glazing -
- Sectional drawing 50 (60)mm-

Annex 20

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

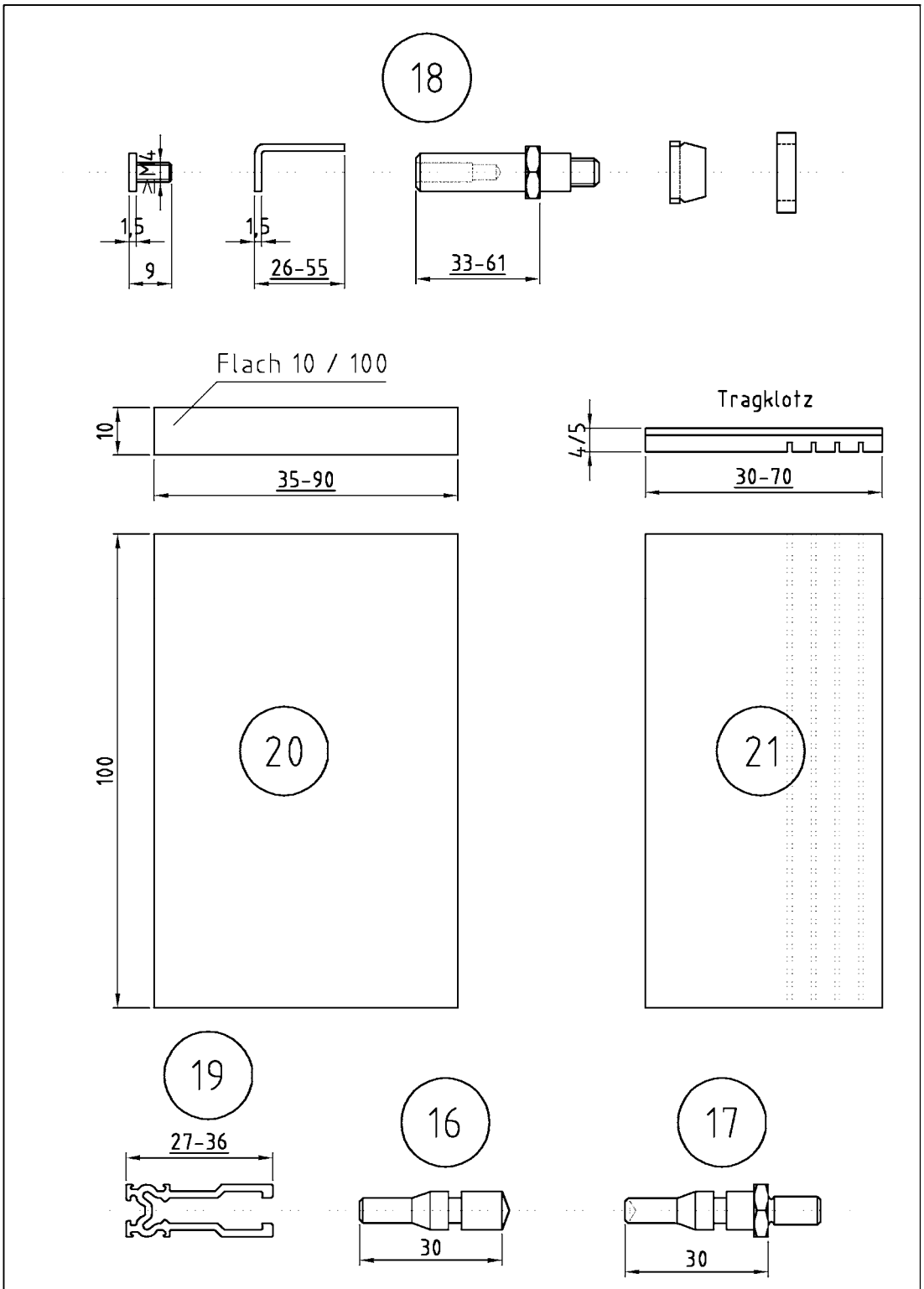
all dimensions in mm

"JANSEN VISS-SG"

- Profiles -

Annex 21

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

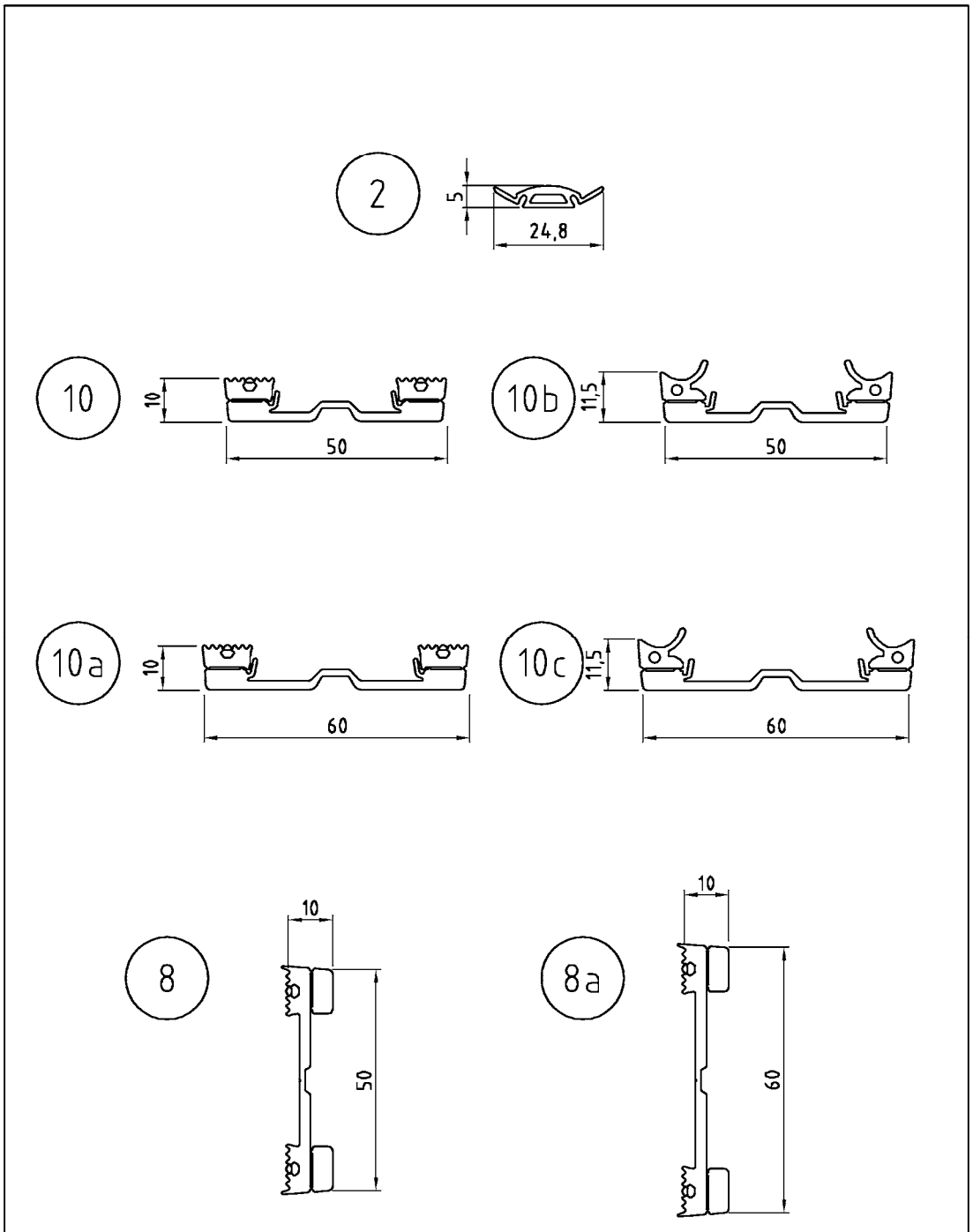
all dimensions in mm

"JANSEN VISS-SG"

- Glazing support; Glazing bridge -

Annex 22

Deutsches Institut für Bautechnik

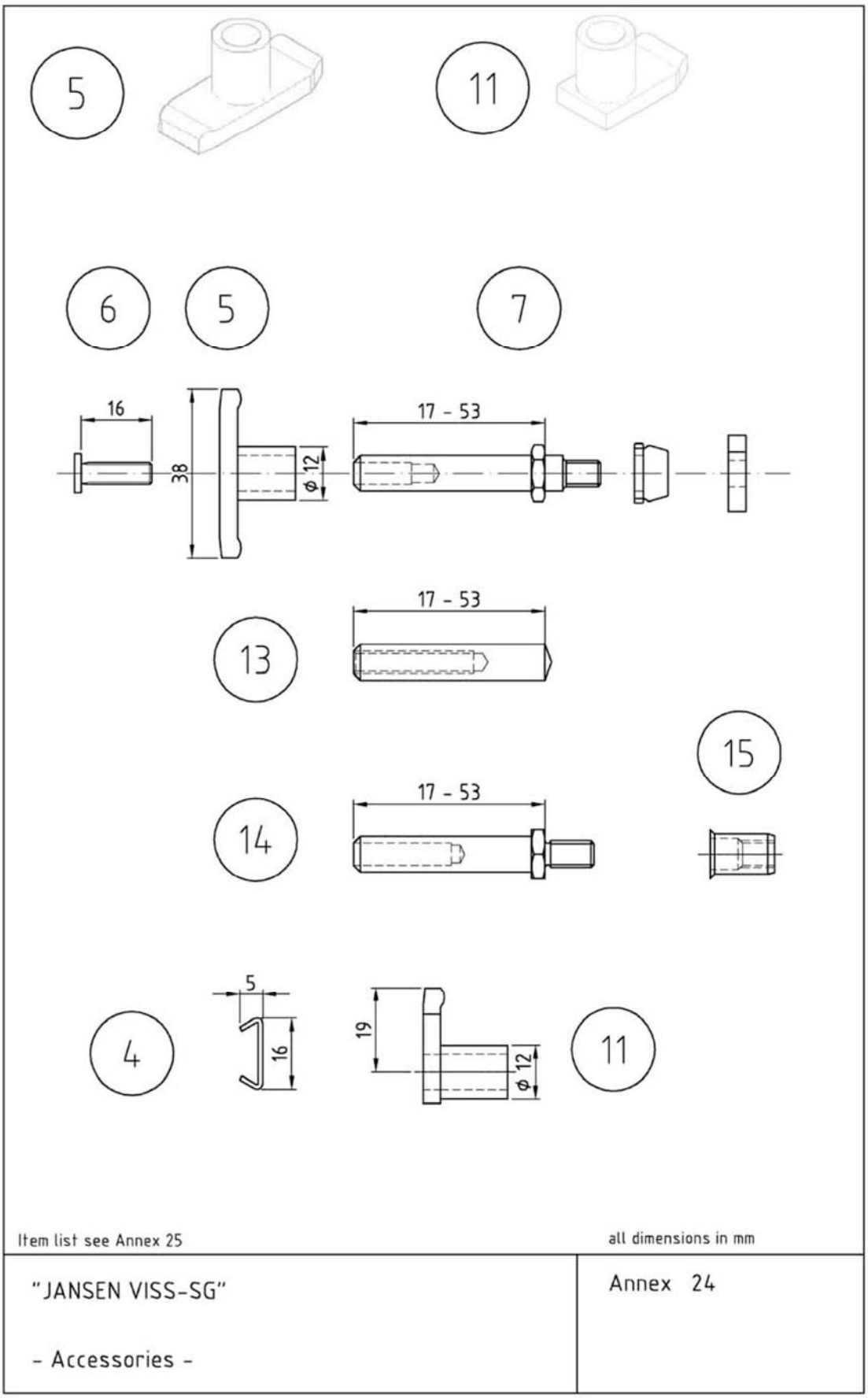


Item list see Annex 25

all dimensions in mm

"JANSEN VISS-SG" - Gaskets -	Annex 23

Deutsches Institut für Bautechnik DIBt



Item list see Annex 25

all dimensions in mm

"JANSEN VISS-SG" - Accessories -	Annex 24

Deutsches Institut für Bautechnik DIBt

Pos.	description
1.	Glass – Produkt Vario (Eckelt Glas) – ETA-10/0362
2.	Gasket Silicone (Art. Nr. 455.989)
3.	1-Components Silicone (DC-791,...)
4.	Glazing rebate profile – Stainless steel (Art. Nr. 400.856)
5.	Fixing glazing clip T – Stainless steel (Art. Nr. 452.165)
6.	Screw M5x20 – Stainless steel, M5x16 (Art. Nr. 452.433)
7.	Fastening anchor – Stainlees steel (e.g. Art. Nr. 452.423 ...)
8.	Inner gasket horizontal 50mm – EPDM (Art. Nr. 455.570)
8a.	Inner gasket horizontal 60mm – EPDM (Art. Nr. 455.571)
9.	VISS – Profiles Steel (e.g. Art. Nr. 76.696 ...)
10.	Inner gasket vertical 50mm – EPDM (Art. Nr. 455.537)
10a.	Inner gasket vertical 60mm – EPDM (Art. Nr. 455.538)
10b.	Inner gasket vertical 50mm Segmental glazing – EPDM (Art. Nr. 455.545)
10c.	Inner gasket vertical 60mm Segmental glazing – EPDM (Art. Nr. 455.546)
11.	Fixing glazing clip L – Stainless steel (Art. Nr. 452.166)
12.	Supporting structure (VISS Basic)
13.	Welding stud – Stainless steel (e.g. Art. Nr. 452.417 ...)
14.	Screw bolt – Stainless steel (e.g. Art. Nr. 452.420 ...)
15.	Blind rivet M6–Stainless steel, steel galvanised (Art. Nr.555.298; Art. Nr.555.299)
16.	Welding supporting bolt – Stainless steel (e.g. Art. Nr. 452.509 ...)
17.	Screw supporting bolt – Stainless steel (e.g. Art. Nr. 452.515 ...)
18.	Glazing support – Stainless steel (e.g. Art. Nr. 452.492 ...)
19.	Rebate section– Aluminium (e.g. Art. Nr. 407.813 ...)
20.	Flat-blat - Steel
21.	Glazing bridge – made of PP, with elastic layer made of TPU (Art. Nr. 453.050; Art. Nr. 453.051; Art. Nr. 453.052; Art. Nr. 453.053)

"JANSEN VISS-SG" - Item list -	Annex 25