Mounting instructions
10/2026 I EN
PVC-U/timber
For specialist companies

primePort SK / primePort PAS

Slide-tilt fittings/sliding fittings with parallel action

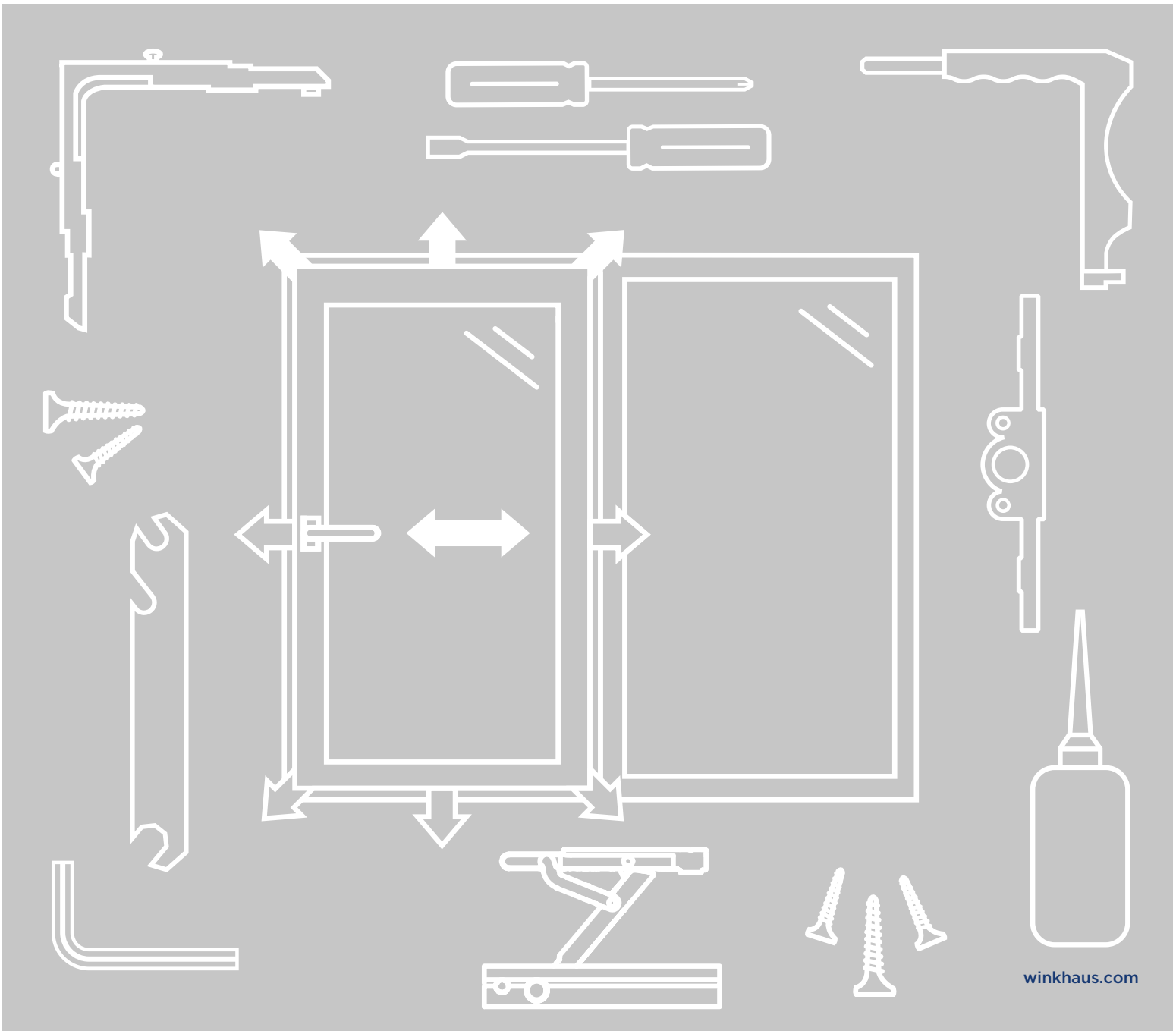


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1 General information

1.1 Information on the target group and their responsibilities

1.1.1 Target group description

These instructions are intended for the following groups of people:

- Hardware dealers
- Manufacturers of windows and patio doors
- Component dealers/assembly companies

In addition to the information in this document, the following target groups must be included in the chain of communication:

- Builders
- Operators
- End users

Further information given by Gütegemeinschaft Schlösser und Beschläge e.V.

Further information on the target group description is provided in detail in the VHBH guideline by Gütegemeinschaft Schlösser und Beschläge in numerous languages.
The guideline **Guidelines/advice on the product and on liability (VHBH)** can be accessed at the following hyperlink:
Hardware for windows and balcony doors – Guidelines/advice on the product and on liability (VHBH)

https://www.guetegemeinschaft-schloss-beschlag.de/Pruefen-Zertifizieren/Richtlinien/VHBH/

1.1.2 Responsibilities of the target groups

Each target group must fulfil their instruction obligation without restriction.

Unless otherwise specified below, the transfer of the documents and information may take place, for example, as a printed version, via internet access or a data carrier.
According to previous case law, the documents and information intended for the end user should be made available in printed form.

Responsibility of the hardware manufacturer
The hardware manufacturer must provide the following documents to the fittings dealer or the manufacturer of windows and patio doors:

1. Catalogue
2. Operating/maintenance instructions (focus on fittings)
3. Assembly instructions for the fitting system (installation guidelines)
4. Guidelines/advice on the product and on liability (VHBH; for openable, fall-protection building elements additionally the information document ISAB)
5. Guidelines/advice for end users (VHBE)

Responsibility of the hardware dealer
The hardware dealer must provide the following documents to the manufacturer of windows and balcony doors:

1. Catalogue
2. Operating/maintenance instructions (focus on fittings)
3. Assembly instructions for the fitting system (installation guidelines)
4. Guidelines/advice on the product and on liability (VHBH; for openable, fall-protection building elements additionally the information document ISAB)
5. Guidelines/advice for end users (VHBE)

Responsibility of window and balcony door manufacturers
The manufacturer of windows and balcony doors must make the following documents available to the building element dealer or the builder, even if other subcontractors (in particular assembly companies) are acting as an intermediary:

1. Operating/maintenance instructions (focus on fittings)
2. Assembly instructions for the fitting system (installation guidelines)
3. Guidelines/advice on the product and on liability (VHBH; for openable, fall-protection building elements additionally the information document ISAB)
4. Guidelines/advice for end users (VHBE)

Responsibility of the building element dealer/assembly company
The building element dealer must pass on the following documents to the builder, even if a subcontractor (assembly company) is intermediary:

1. Operating/maintenance instructions (focus on fittings)
2. Guidelines/advice on the product and on liability (VHBH; for openable, fall-protection building elements additionally the information document ISAB)
3. Guidelines/advice for end users (VHBE)

Responsibility of the builder *
The builder must forward the following documents to the end user/operator:

1. Operating/maintenance instructions (focus on fittings)
2. Guidelines/advice for end users (VHBE)

   * The builder can also be an operator and/or end user. An operator may also be between the builder and the end user.

   Irrespective of the specific constellation of the participants “builder”, “operator” and “end user”, the communication in the information chain must ensure that the guidelines/advice for end users (VHBE) or alternatively the user instructions adapted by the window manufacturer to windows and balcony doors according to the version in question (window type) are made available!

1.2 About these instructions

These instructions ensure safe handling of the product. Observing the information in these instructions can help to prevent accidents and material damage.

Read these instructions carefully to familiarise yourself with the installation and handling of this product and to avoid errors and hazards.

These instructions are intended exclusively for the installation of Winkhaus fittings in window/door elements made of approved window materials. The information and instructions in this manual refer to the product segments, materials and target groups mentioned on the front page. The numerical assignment of the document including the issue date helps with orientation.

The chapter "Product overview" of these instructions contains important information such as technical specifications, including the maximum sash sizes and sash weights as well as article descriptions in the form of an overview graphic.

Remarks

- Read the instructions before starting any work.
- Always observe all information in these instructions, other applicable documents and the instructions on the product.
- The sequence of all steps in these instructions must be observed.

The following subchapter "Other applicable documents" lists other applicable and supplementary guidelines.

Concerning this document, please draw special attention to:

1. Product catalogues
2. Application diagrams
3. Lists of fittings
4. Product data sheets in the Winkhaus Portal

Sharing of documents and data

It must be ensured that when the product is passed on, the data in the instructions and other applicable documents are also passed on in accordance with the preceding definition "Information on the target groups and their responsibility".

Retention of documents/data access

The data in these instructions and other applicable documents are an important part of the product. The data in these instructions as well as data access to the other applicable documents must be provided or stored for future use.

Illustrations

The illustrations are provided to ensure basic understanding and may differ from the actual version that you have.

Dimensions

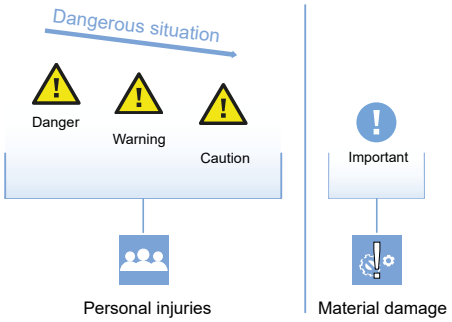
Some of the indicated dimensions are rounded measures!

1.3 Marking of notes and symbols

Basic data for safety-related information

Safety instructions in accordance with DIN EN IEC/IEEE 82079

These instructions have been developed on the basis of the basic standard of the technical documentation DIN EN IEC/IEEE 82079.
Safety instructions are identified in this guideline by a symbol and are introduced by a signal word. Obey all safety instructions and act carefully to avoid accidents, personal injury and property damage.
The figure on the right gives an overview of the safety-related information used in this manual.



Warnings and their meaning

CAUTION

This warning symbol and signal word is used to indicate a hazard with low risk, which could result in minor or moderate injury if it is not avoided.

WARNING

This warning symbol and signal word is used to identify a hazard with medium risk which, if not avoided, could result in death or serious injury.

DANGER

This warning symbol and signal word is used to identify a hazard with a high risk, which will result in death or serious injury if it is not avoided.

Other information

IMPORTANT

This symbol and signal word is used to indicate possible material damage.

This symbol highlights important additional information for efficient and trouble-free operation.

This symbol indicates useful tips and recommendations for your product.

Environment

This symbol and signal word is used to identify a possible hazard to the environment.

1.4 Explanation of abbreviations

The following abbreviations are used in this manual:

Abbreviation	Description
AST	Support piece
FFB	Size-dependent fitting parts (in relation to the sash rebate width)
FFH	Size-dependent fitting parts (in relation to the sash rebate height)
GK	Constant handle position (in relation to the sash rebate edge)
GM	Central handle position (in relation to the sash rebate edge)
GS	Sliding shear
KS	Coupling rod
max. x kg	Maximum sash weight
max. x m²	Maximum sash size
SK	Slide-tilt
SK-S	Slide-tilt, standard
SK-Z	Slide-tilt, handle-controlled
STKL	Guide block
VST	Reinforcement part

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1.5 Explanation of designations

The following designations are used in this manual:

Designation	Explanation
Caps and covering profiles	For covering guide rails, support rails, bogies and reinforcement parts – various colours
Support piece	Used to support the bogie cover profiles.
Design variants (schematic)	Describe the positioning of sliding sashes in different element versions.
Application diagram	Used to determine the permissible application range – (limitation of the sash formats for different glass thicknesses)
Damper system	Damper components ensure improved and smooth sash entry from the sliding position. (The bogies can optionally be used with a damper system. Sliding shears can be equipped with a damper system as well.)
Corner drive	Corner drives as central parts of the window fitting system are subjected to particularly high loads. For this reason, different corner drives are required for the primePort SK-S variant and the handle-controlled primePort SK-Z variant (top drive side)!
Guide rail	Takes over the guiding of the sliding shear
Sliding shear	Moves with the sliding sash in the guide rail and takes over the sliding guide as well as actuation or detent of the tilt position.
Handle	Rotary handles – A sliding sash is operated by means of a rotary handle. Different handle sets for the primePort SK-S variant and screw-on drive for the handle-controlled primePort SK-Z variant
Support rail	Mounted on the sliding sash. The pins of the sliding shear engage in the suspension bushes provided for this purpose, securing the sliding sash.
Coupling rod	For connecting bogies
Bogie	The bogies are mounted on the window element. They are the connecting link between the sliding sash and the slide rail.
Opening direction	Determination of the opening direction for slide-tilt elements in accordance with DIN EN 12519.
Support block	Used to support bogie coupling rods (from a sash rebate width (FFB) > 1450 mm)
Guide block	Is attached to the slide rail and controls the entry of the sliding sash.
Locking initiator	The locking initiator induces the movement into the locking position as a “proximity switch” when the sliding sash closes.
Top stopper	Is attached to the guide rail and dampens the end position of the sliding sash when the maximum sliding opening width is reached, synchronously with the bottom stopper.
Bottom stopper	Is attached to the slide rail and dampens the end position of the sliding sash when the maximum sliding opening width is reached.
Overview image	Provides a basic understanding of the components’ position on the window element.
Reinforcement part	Is generally suitable for all types of bogies. Required for sash weights exceeding 100 kg.
Central locking system	Components from the Winkhaus activPilot modular system

1.6 Declaration of symbols

Technical content or specific information is supplemented in this documentation by various symbols.

Symbol	Usage/meaning	Symbol	Usage/meaning
	Slide-tilt element		Cutting to length of a component
	Maximum sash rebate width (FFB)		Cross-reference to further information
	Maximum sash rebate height (FFH)		Screw fixing in steel
	Maximum sash rebate width (FFB) – here greater than 1450 mm		Screw only hand-tight
	Profile material PVC-U		Hexagon socket wrench – here size 25
	Profile material timber		Specified tightening torque in Nm
	Sash weights up to 100 kg		Optional component
	Sash weights 100 to 160 kg		Sash weights 160 to 220 kg

1.7 Manufacturer and contact

Manufacturer and contact details

The manufacturer and contact details can be found on the back of this manual.

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1.8 Other applicable documents

Introduction

Further documents and documentation apply in connection with these instructions. These are listed below.

General terms and conditions of business

Unless otherwise agreed in an individual contract, all our deliveries, performances and offers are made exclusively on the basis of these General Terms and Conditions of Business and Delivery (GTC). The current General Terms and Conditions can be found on the Winkhaus homepage under the following hyperlink:
General Terms and Conditions

https://www.winkhaus.com/agb

The Winkhaus Portal

The Winkhaus Portal – versatile and practical: Our market partners can find a wide range of services with media downloads, product configurators, order management tools and much more in the Winkhaus Portal.

After entering a Winkhaus article number or designation, a data sheet download can be started. For example, relevant dimensions for assembly such as screw dimensions and positions or routing dimensions can be found here.

For the specific articles a multi-page data sheet is available in several languages:

- For download in Winkhaus Portal or on request

https://partnerportal.winkhaus.com

Guidelines of Gütegemeinschaft Schlösser und Beschläge e.V.

Gütegemeinschaft Schlösser und Beschläge e.V. publishes guidelines that provide assistance in the application of locks and hardware in windows, balcony doors and doors.

Guidelines of Gütegemeinschaft Schlösser und Beschläge e.V.
https://www.guetegemeinschaft-schloss-beschlag.de/Pruefen-Zertifizieren/Richtlinien/

The following guidelines also apply:

VHBH guideline

The guideline **Guidelines/advice on the product and on liability (VHBH)** can be accessed via the following hyperlink:
Hardware for windows and balcony doors – Guidelines/advice on the product and on liability (VHBH)
https://www.guetegemeinschaft-schloss-beschlag.de/Pruefen-Zertifizieren/Richtlinien/VHBH/

VHBE guideline

The guideline **Guidelines/advice for end users (VHBE)** can be accessed via the following hyperlink:
Hardware for windows and balcony doors – Guidelines/advice for end users (VHBE)
https://www.guetegemeinschaft-schloss-beschlag.de/Pruefen-Zertifizieren/Richtlinien/VHBE/

Verband Fenster + Fassade (Association of Window and Facade Manufacturers, Frankfurt)

Plenty of information (e.g. guidelines and data sheets) is available on the following website as a reliable source of information for manufacturers, architects, planners and builders:

Verband Fenster + Fassade
https://www.window.de

Other guidelines and standards

- The specifications of the profile manufacturers (application sizes, manufacturing specifications and processing guidelines) must be observed.
- Specifications and information of the fitting screw manufacturers
- Relevant European standards or parts thereof

2 Safety instructions

2.1 General safety notices

Introduction

These safety instructions are essential for the installation, operation and maintenance of the fitting system.

Advice on specialised staff

Assembly/repair of a fitting system requires specialist knowledge, which is why this work should only be carried out by specialists or instructed persons.

Persons involved in mounting fittings must have read and understood this fitting guide. Observe production liability information for all work with fittings. Manufacturer will accept no liability in cases of failure to comply with this guide, deployment of insufficiently qualified staff and unauthorised alterations.

Configuration of fittings

The manufacturer's instructions with regard to the composition of fittings (e. g. number of bogies per sash to be installed, use of sliding shears) are mandatory.

Sash sizes and notes regarding application

The maximum sash weights for the individual fitting versions may not be exceeded. The component with the lowest permissible loading capacity determines the maximum weight of the sash. Please observe the diagrams and component installation instructions.

The graphs in the application diagrams show the permitted sash rebate height to width ratios, as determined by different weights of glass and/or overall glass thickness. The resulting sash rebate dimensions or sash formats (portrait/landscape) as well as the maximum sash weight may under no circumstances be exceeded.

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Regular product maintenance

Security-relevant fitting parts are to be inspected at least once a year to check for wear and to ensure they are firmly secured in position. Fastening screws must be tightened and faulty components must be replaced as required. In addition, maintenance/cleaning work must be carried out at least once a year. All mobile parts and locking points of fittings should be greased and tested for function. Only oils and greases not affecting the materials of the fitting may be used. The only cleaning and maintenance materials to be used are those which will not adversely affect the corrosion-resistant properties of the fittings components.

For more information, see "Cleaning and maintenance", page 99.

CAUTION

Adjustment work may only be carried out by a specialist company.
Adjustment work on the fittings – especially in the area of load-bearing fitting parts – as well as the replacement of parts and mounting and removal of the opening sashes must be carried out by a specialist company.

Maintaining surface quality

- The fittings and rebate spaces must be adequately ventilated, particularly during the construction stage, so that they are not exposed to the direct effects of moisture or condensation. It must be ensured in any case by appropriate measures that there is no possibility for (permanently) humid room air to condense in the rebate area.
- The fittings must be kept free from deposits and soiling due to building materials (building dust, gypsum plaster, cement etc). Possible soiling from plaster, mortar etc. must be removed prior to bonding with water.
- Corrosive vapours (e.g. formic acid, acetic acid, ammonia, amine and ammonia compounds, aldehydes, phenols, chlorine, tannic acid etc.) combined with even a small amount of condensation can cause rapid corrosion of the fittings. Therefore, such evaporation in the area of the windows must be avoided at all costs.
- Furthermore no sealants that cure with acetic or other acids, or sealants containing any of the above-mentioned substances, must be used. Both direct contact with the sealant and vapours released from it can damage the surface.
- Only use a mild and pH neutral detergent in diluted form to clean the fittings. Under no circumstances use aggressive acidic cleaners or scouring agents containing the substances listed above.

Obligations regarding information and instructions

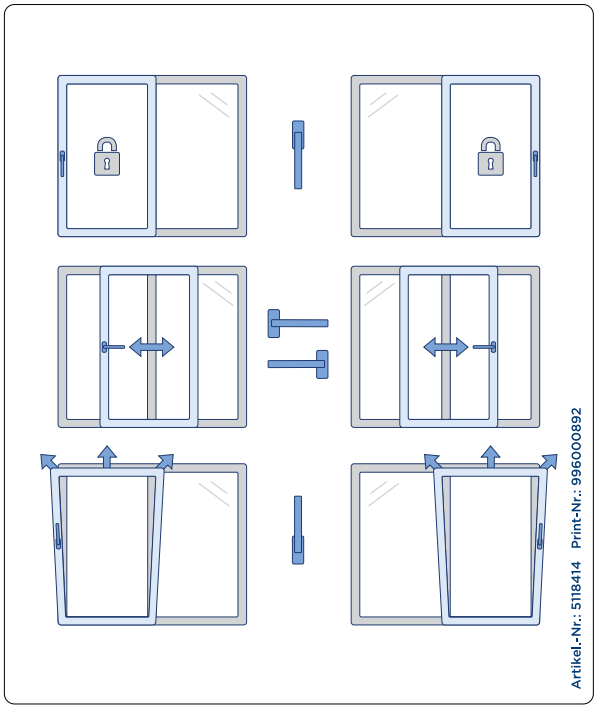
Detailed information on the implementation of the information and instruction obligations, which must be passed on via every (intermediary) dealer and processor to the end customer, as well as on the execution of maintenance work, is available on the homepage Guidelines of Gütegemeinschaft Schlösser und Beschläge e.V.in particular in the guideline VHBH, chapter “Safety”, subchapter “Instruction obligation”.

https://www.guetegemeinschaft-schloss-beschlag.de/Pruefen-Zertifizieren/Richtlinien/VHBH/

User information/operating instructions

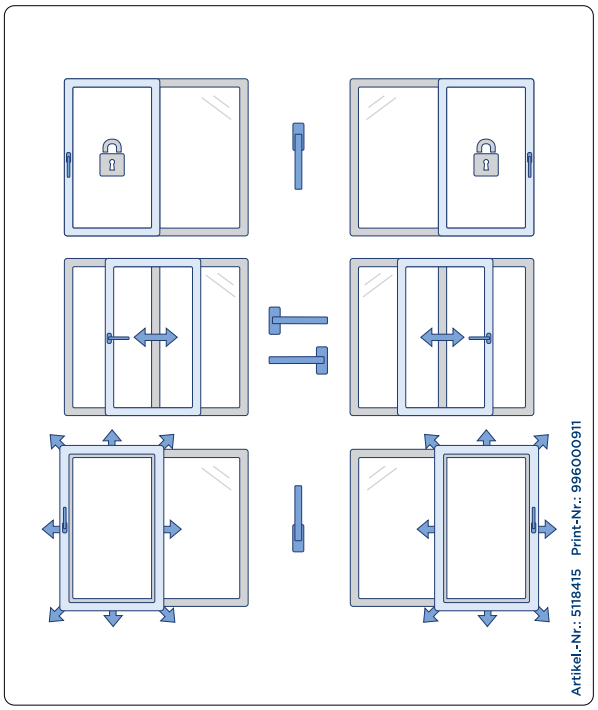
primePort SK

An instruction sticker for operating the slide-tilt element can be ordered separately. It is to be positioned on the window glass within easy reach of the end user. Further information on ordering is available from your Winkhaus contact person.



primePort PAS

An instruction sticker for operating the sliding element with parallel action can be ordered separately. It is to be positioned on the window glass within easy reach of the end user. Further information on ordering is available from your Winkhaus contact person.



2.2 Intended use

Basic definition of sliding fittings

Sliding hardware is used for sliding sashes of windows and balcony doors which are principally used as barriers to the outside, and which are mostly glazed. In combination with the sliding sashes, fixed fields and other sashes can be arranged in a window element. Sliding hardware is equipped with a closure which locks the sliding sash. In addition, sliding hardware has rollers which are generally positioned on the lower horizontal profile-piece of the sliding sash. Projecting shears for tilting, and mechanisms for lifting or parallel positioning of the sash may be provided. The hardware is used to lock the sash, bring it into the ventilation position, and push it to the side.

Source: Guidelines of Gütegemeinschaft Schlösser und Beschläge e.V.

https://www.guetegemeinschaft-schloss-beschlag.de/Pruefen-Zertifizieren/Richtlinien/VHBH/

2.3 Use contrary to the intended purpose

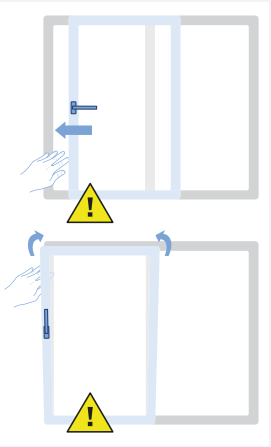
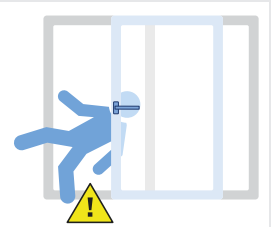
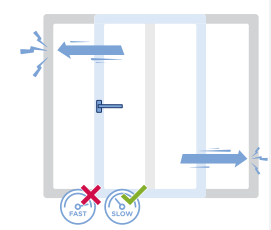
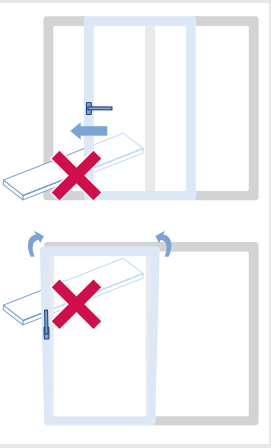
Misuse

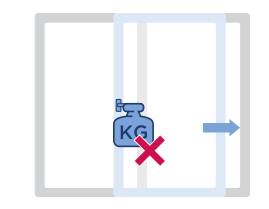
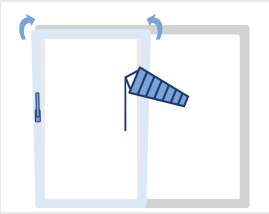
Misuse – i.e. the use of a product in a manner contrary to the intended use – of slide fittings for sashes of windows and patio doors occurs

1. if obstacles are placed in the opening area preventing the intended use.
2. if additional charges act on sashes of windows or patio doors
3. if someone grasps in the gap between the frame and sash when sliding or closing the window or if there are any persons or body parts in this area when the sash is closed.

2.4 Safe operation of sliding elements

The following safety symbols and markings and the associated warnings apply to the safe operation of windows and patio doors.

Symbol	Meaning
	**Danger of injury through trapping of body parts in the opening gap between sash and frame** • When closing windows and balcony doors, never reach between sash and frame, and always act with care. • Keep children and people who cannot estimate the dangers away from the point of danger.
	**Danger of injury from falling through open windows and balcony doors** • Behave with care near to open windows and balcony doors. • Keep children and people who cannot estimate the dangers away from the point of danger.
	**Risk of injury and material damage due to uncontrolled closing and opening of the sash.** • Make sure that the sash is guided slowly by hand over the entire movement range to the absolute closing or opening position.
	**Danger of injury and material damage from insertion of obstructions into the opening gap between sash and frame** • Do not insert obstructions into the opening gap between sash and frame.

Symbol	Meaning
	**Danger of injury and material damage from overloading the sash** • Do not place any additional load on the sash.
	**Danger of injury from the effect of wind** • Prevent wind from acting on the open sash. • During wind and drafts, close and lock windows and balcony door sashes.

2.5 Exclusion of liability

These instructions are part of the product. The manufacturer accepts no liability for damage resulting from non-compliance with these instructions, or damage that could have been avoided by observing them.

The respective complete fitting must be selected from the original Winkhaus fitting components range. Winkhaus accepts no liability if non-original or unauthorised system accessory parts are used.

CAUTION

Screwing of load-bearing fitting parts such as slide and guide rails, bogies and support rails must be adapted to accommodate the load situation.

IMPORTANT

In the case of slide rails, a pressure-resistant packer corresponding to the loads and geometrical dimensions must be provided for further load transfer to the structure.

3 Transport

3.1 Advice on transport

In addition to the relevant information on stable and shatter-proof transport of window and door elements, the following note must be observed in particular:

IMPORTANT

Damage to Winkhaus components due to missing transport protection

Missing transport protection can cause damage to the window system and the fitting parts.

- Insert transport protection between the sash profile and the frame profile.
- Lock the window system.
- Make sure that the bogies are free of load during transport, otherwise damage may occur, especially to the rollers.
- Safe transport must be ensured within the window manufacturer's area of responsibility (if necessary, separate transport of frame and sash frame or also by means of glazing on site).

3.2 Installation of transport protection

Airgap limiters for window and door elements

Airgap limiters are available in various versions as accessories. If airgap limiters are used as transport protection, the number and positioning vary. Care should be taken here to ensure even load distribution.

3.3 Dismounting of transport protection

Removal of airgap limiters

Airgap limiters that have only been installed as transport protection must be removed after delivery of the window/door element.

For certain element designs (e.g. burglary-resistant elements), it may be necessary for airgap limiters to remain in place even after transport.

4 Delivery and storage

4.1 Information on delivery

Delivery of the goods

Details on the delivery of the goods can be found in the General Terms and Conditions of Business and Delivery (GTC) of **Aug. Winkhaus SE** at the following hyperlink:
General Terms and Conditions

https://www.winkhaus.com/agb

4.2 Checking the scope of delivery

Liability for defects

Details on liability for defects can also be found under the aforementioned hyperlink.

4.3 Information on storage

Storage of fittings

The storage location of the fitting parts must meet the following conditions:

- Protection from moisture (in particular condensation)
- Fitting parts should be stored on a level surface until installation.
- Protection against heat and sunlight
- Protection against access by unauthorised persons.

Covering profiles are supplied with a protective film. This should be removed after three months at the latest.

5 Product overview

5.1 Technical data

Product characteristics

primePort SK 100 S

Sash rebate width	620*-1300 mm
Sash rebate height	650-2300 mm
Maximum sash weight	100 kg
Bogie design	standard
Bogie reinforcement set	no
Shear activation	without handle control

primePort SK 160 S/primePort PAS 160

Sash rebate width	620*-2000 mm
Sash rebate height	650-2700 mm
Maximum sash weight	160 kg
Bogie design	standard
Bogie reinforcement set	yes
Shear activation	without handle control

primePort SK 160 Z

Sash rebate width	710*-2000 mm
Sash rebate height	850-2700 mm
Maximum sash weight	160 kg
Bogie design	standard
Bogie reinforcement set	yes
Shear activation	with handle control

primePort SK 220 Z

Sash rebate width	1130-2000 mm
Sash rebate height	850-2700 mm
Maximum sash weight	220 kg
Bogie design	tandem bogie
Bogie reinforcement set	yes
Shear activation	with handle control

Legend: * = minimum sash rebate width for bogie version including damper system

Information on sash sizes and sash weights

Observe the specifications in the application diagrams!

The graphs in the application diagrams show the permitted sash rebate height to width ratios, as determined by different weights of glass and/or overall glass thickness. The resulting sash rebate dimensions or sash formats (portrait/landscape) as well as the maximum sash weight may under no circumstances be exceeded.

Observe instructions on window profile!

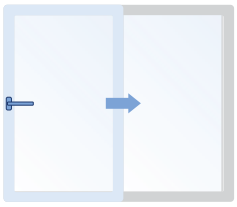
You must specifically take into account information provided by the profile manufacturer or system owner when determining the maximum sash sizes and sash weights!

5.2 Design variants (schematic)

Two-panel element

Schematic A

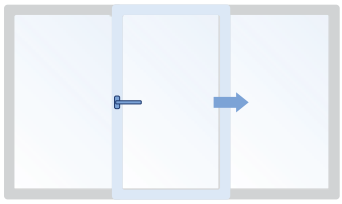
1 sliding sash (left or right), glazed frame:



Three-panel element

Schematic G

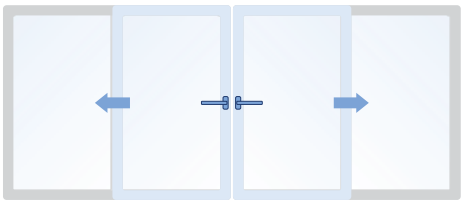
1 sliding sash (left or right), glazed frame:



Four-panel element

Schematic C

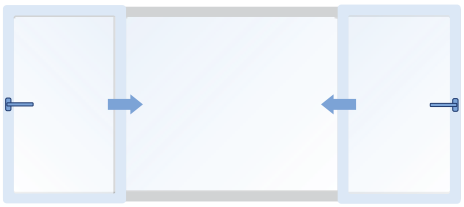
2 sliding sashes (left and right), glazed frame:
(also for elements without fixed window posts)



Three-panel element

Schematic K

2 sliding sashes (left and right), glazed frame:

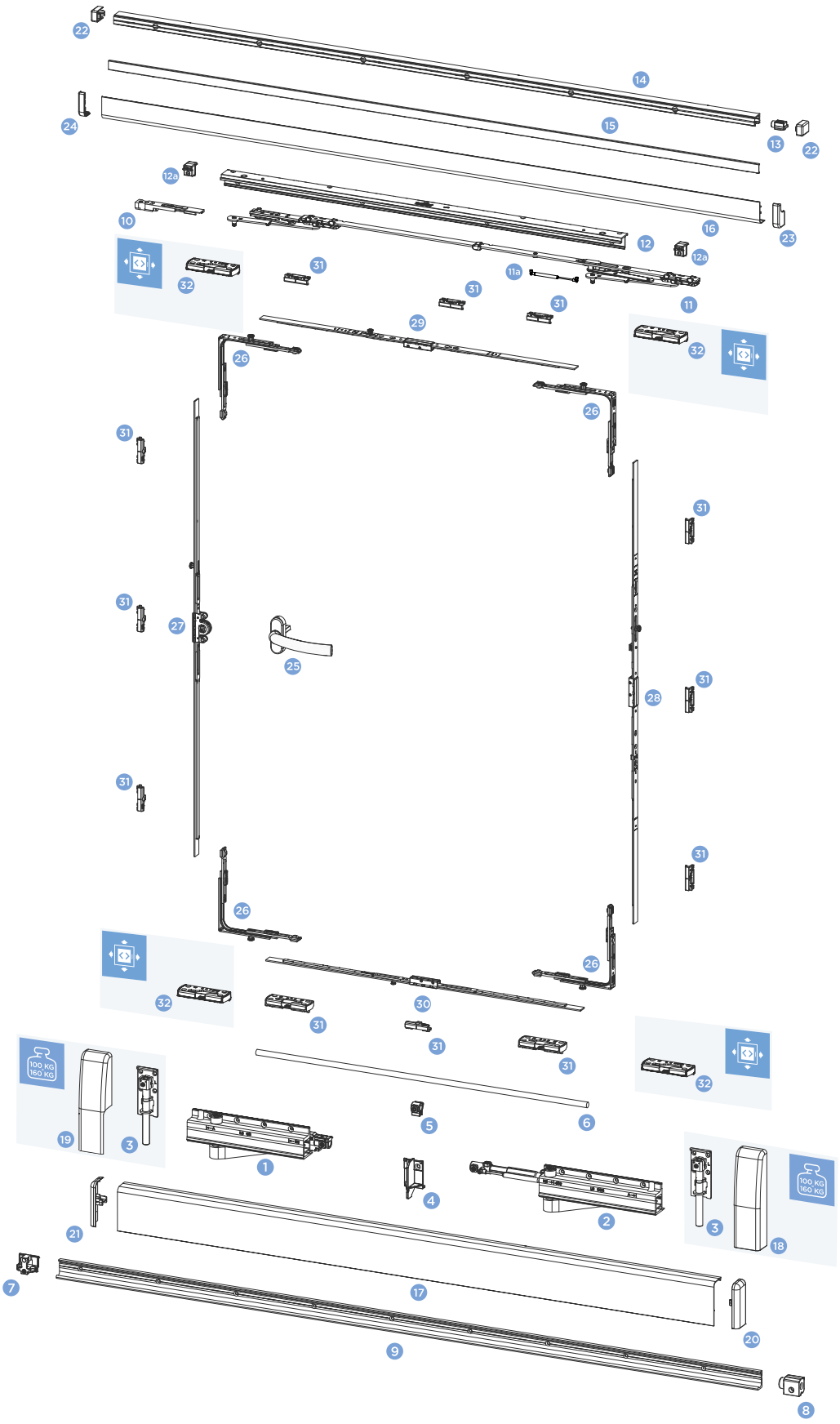


Determination of the opening direction for sliding elements in accordance with DIN EN 12519

The opening direction is determined from the inside.
When looking at a closed, *"right opening"* sash, it is a "left sash".

5.3 Overview graphics and descriptions

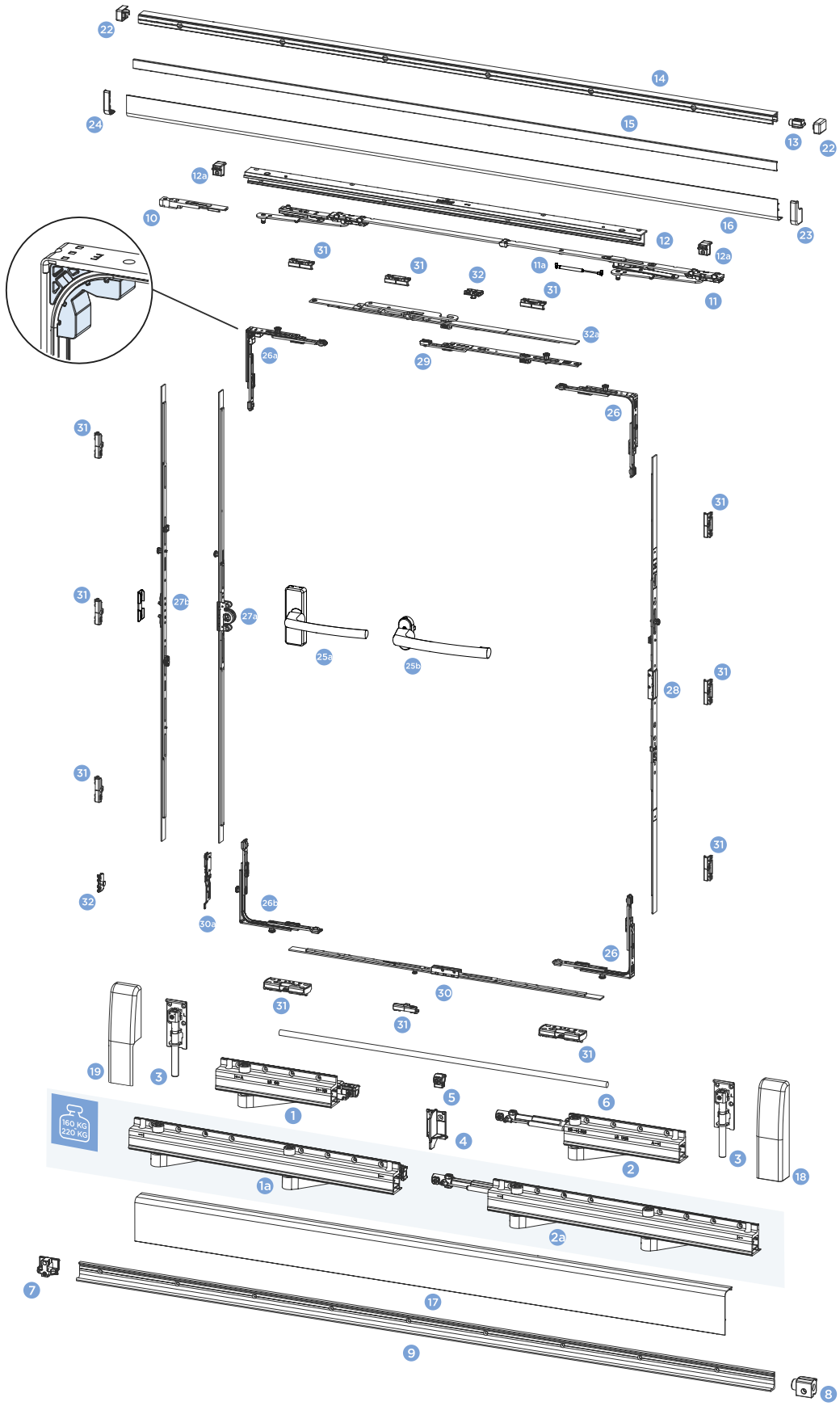
Overview of primePort variants SK 100 S, SK 160 S and PAS 160



No.	Item designation	Assembly step
1	Bogie system, controlled	page 62
2	Bogie system, uncontrolled (here including damper system)	page 62
3	Reinforcement part (from 100 kg sash weight)	page 62
4	Support piece	page 63
5	Support block (FFB > 1450 mm)	page 65
6	Coupling rod	page 65
7	Guide block	page 84
8	Bottom stopper	page 83
9	Slide rail	page 78
10	Locking initiator	page 80
11	Sliding shear	page 79
11a	Damper system for sliding shears	page 80
12	Support rail	page 68
12a	Retaining clips for covering profile of support rail	page 88
13	Top stopper	page 83
14	Guide rail	page 79
15	Covering profile guide rail	page 88
16	Covering profile support rail	page 89
17	Covering profile bogies	page 86
18/19	Cover cap reinforcement part right/left (from 100 kg sash weight)	page 87
20/21	Cover cap covering profile, bogies right/left	page 86
22	Cover cap guide rail	page 88
23/24	Cover cap covering profile, support rail right/left	page 89
25	Handle	page 50
26	Corner drive	page 47
27	Drive rod	page 47
28	Connection rod opposite the drive rod	page 48
29	Top connection rod	page 48
30	Bottom connection rod	page 49
31	Frame parts activPilot central locking system	
32	Frame parts parallel action slide fitting system	

This fitting list is merely a system illustration. Detailed fitting lists are available separately.

Overview of primePort variants SK 160 Z and SK 220 Z



No.	Item designation	Assembly step
1	Bogie system, controlled	page 62
1a	Tandem bogie, controlled (from 160 kg sash weight)	page 62
2	Bogie system, uncontrolled (here including damper system)	page 62
2a	Tandem bogie, uncontrolled (from 160 kg sash weight)	page 62
3	Reinforcement part (from 100 kg sash weight)	page 62
4	Support piece	page 63
5	Support block	page 65
6	Coupling rod	page 65
7	Guide block	page 84
8	Bottom stopper	page 83
9	Slide rail	page 78
10	Locking initiator	page 80
11	Sliding shear	page 79
11a	Damper system for sliding shears	page 80
12	Support rail	page 68
12a	Retaining clips for covering profile of support rail	page 88
13	Top stopper	page 83
14	Guide rail	page 79
15	Covering profile guide rail	page 88
16	Covering profile support rail	page 89
17	Covering profile bogies	page 87
18/19	Cover cap reinforcement part right/left	page 87
22	Cover cap guide rail	page 88
23/24	Cover cap covering profile, support rail right/left	page 89
25a	Handle for screw-on drive	page 57
25b	Handle 200 mm	page 50
26/26a/26b	Corner drive/reinforced corner drive/corner drive E11	page 47/ page 51
27a	Reinforced drive rod	page 51
27b	Connection rod including bridge for screw-on drive	page 56
28	Connection rod opposite the drive rod	page 55
29	Interlocking rod MK...	page 52
30	Bottom connection rod	page 55
30a	Fail safe device	page 55
31	Frame parts activPilot central locking system	
32/32a	Frame plate stay arm/stay arm	page 52

This fitting list is merely a system illustration. Detailed fitting lists are available separately.

6 Installation

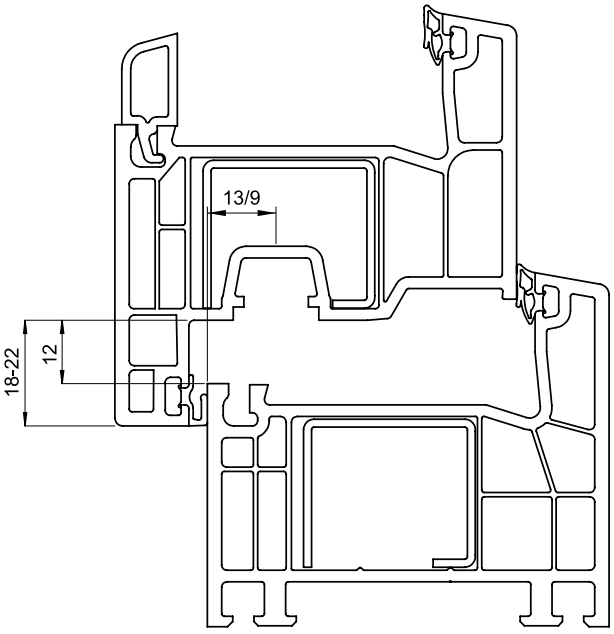
6.1 Assembly information

Profile designs for PVC-U and wooden window systems

Profile material	Overlap [mm]	Airgap [mm]	Groove centre position [mm]
PVC-U	18-22	12	9, 13
Timber	18-22	12	9, 13

Profile design PVC-U windows

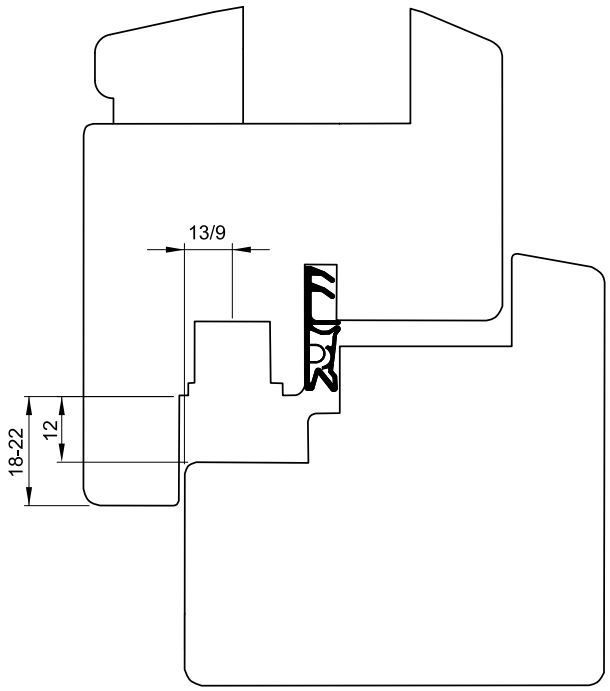
The fitting is suitable for all PVC-U windows with a standard fitting groove (eurogroove position 9 or 13 mm) and designed for an airgap of 12 mm and overlaps of 18 to 22 mm.



Profile design timber windows

The fitting is suitable for timber windows with a standard fitting groove (eurogroove position 9 or 13 mm) and designed for an airgap of 12 mm and an overlap of 18 to 22 mm.

When selecting the type of timber please take into account the bulk density and splitting resistance.



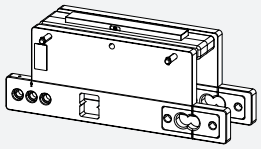
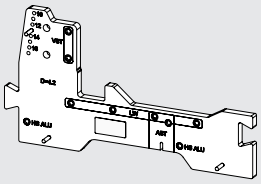
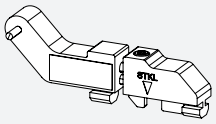
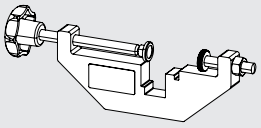
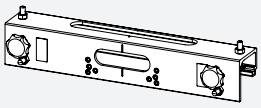
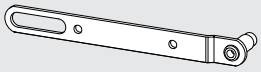
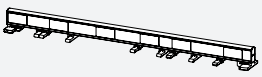
Blocking of glazing units

Within the framework of Guideline *Blocking of Glazing Units*, the German Federation of Glazers has compiled all relevant recommendations for the proper execution of blocking based on current practice and taking into account the requirements of the European standard EN 12488. This guideline can be a very good aid for expanding knowledge in this area.

6.2 Conditions for installation

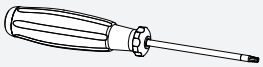
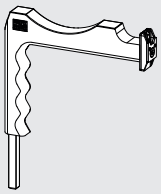
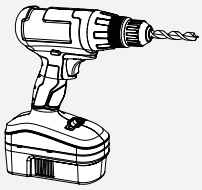
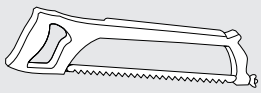
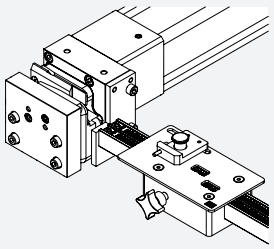
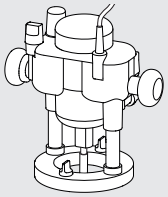
Mounting tools

The mounting tools shown in the table are required for mounting primePort SK and primePort PAS fittings:

	Item designation	Tool
	Jig profile cylinder 250	Drive rod drill bit: ø 10 mm Profile cylinder drill bit: ø 20 mm
	Jig bogie PPSK	Drill bit: ø 4.2 mm
	Jig guide block PPSK	Hexalobular socket wrench 25
	Jig slide and guide rail PPSK	Open-end spanner, wrench width: 13 mm
	Jig screw-on drive/stay arm PPSK	Router: 6 mm Router with 27 mm copying sleeve Drill bit: ø 4.2 mm
	Jig drill centering PPSK	Drill bit: ø 3 mm
	Jig LE.N.PPSK 0620...1300	-
	Jig LE.N.PPSK 1301...2000	-

Tools

The tools shown in the figure are required for assembly:

	Tool
	Hexalobular socket wrench size 25
	Hexagon socket key size 4 mm
	Winkhaus HV adjustment key for octagonal mushroom head bolts
	Handle 7 mm square
	Drill with drill bit
	Saw
	Fittings punch
	Router

Assembly aids and tools are not included in the scope of delivery.

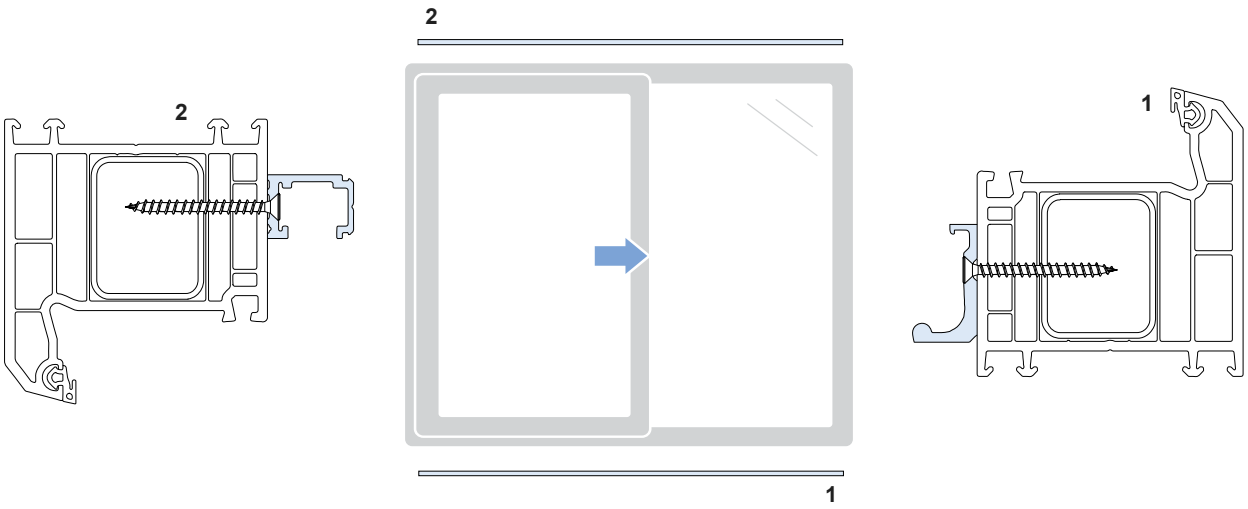
For further assembly aids and corresponding instructions, please address your Winkhaus contact person for comprehensive advice. Alternatively, further information is provided in the Winkhaus Portal. See "Other applicable documents", page 12

Attachment of load-bearing components/torques

IMPORTANT

In general, it is recommended to use high-quality screws of sufficient dimensions. The screws used must be matched to the respective window material. The specifications in this documentation as well as those of the screw manufacturer must be implemented.

In the case of PVC-U profiles, load-bearing components must generally be bolted down to the steel reinforcement. The screw length must be selected in that way that the screwing depth in steel is at least 5 mm.

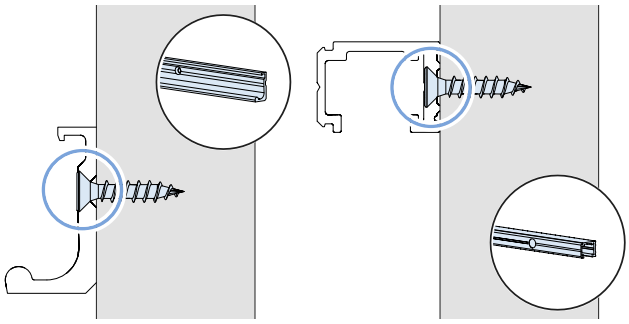


(1) slide rail; (2) guide rail;

Screw dimensions

Component	Screw type/dimensions [mm]	Head diameter [mm]	Drill diameter (pre-drilling) [mm]
Bogies	Fitting screw ø 4.8	max. 7	4.2
Reinforcement parts	Fitting screw ø 4.8	7-9.5	4.2
Support piece	Fitting screw ø 4.8	7-9.5	4.2
Support rail	Fitting screw ø 3.9-4.1	max. 7	3.0
Slide rail	Fitting screw ø 3.9-4.1	7	3.0
Guide rail	Fitting screw ø 3.9-4.1	7	3.0
activPilot central locking system – sash components	Fitting screw ø 3.9	max. 7	-
Window handle	M5 x ..., DIN 965	max. 7.5	-

Winkhaus does not provide fastening screws for fitting. Always use fastening screws suitable for the window type and window dimensions.



The slide rail (bottom) and guide rail (top) must be fastened with fitting screws with a head diameter of ø 7 mm.
The screw heads must be flush with the rail surfaces.

Torques

Component	Tightening torque [Nm]
Coupling rod	5-7
Support block	2-3
Locking initiator	3-4
Guide block	4-5
Top/bottom stopper	3-4

6.3 Preparing the installation

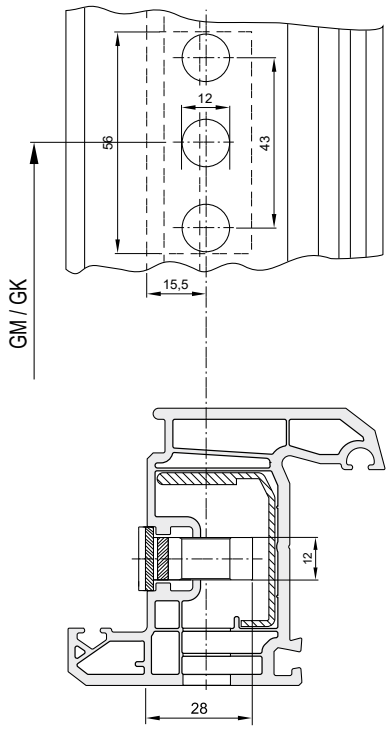
6.3.1 Scale drawings

Drive rod GAK ... and GAM ... D 15.5

Drilling and milling pattern for gear lock case
Backset D 15.5 mm

PVC-U profile

(also valid for .PP version)

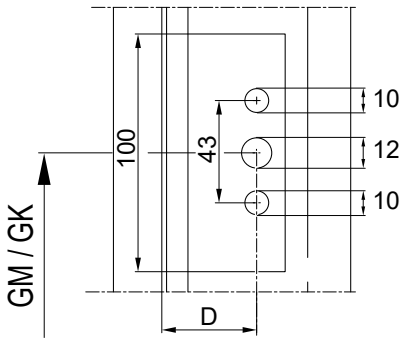


GM - Central handle position
GK - Constant handle position

Drive rod GAK ... and GAM ... D 25-50

Drilling and milling pattern for gear lock case
Backsets 25, 30, 35, 40, 45 or 50 mm

PVC-U profile

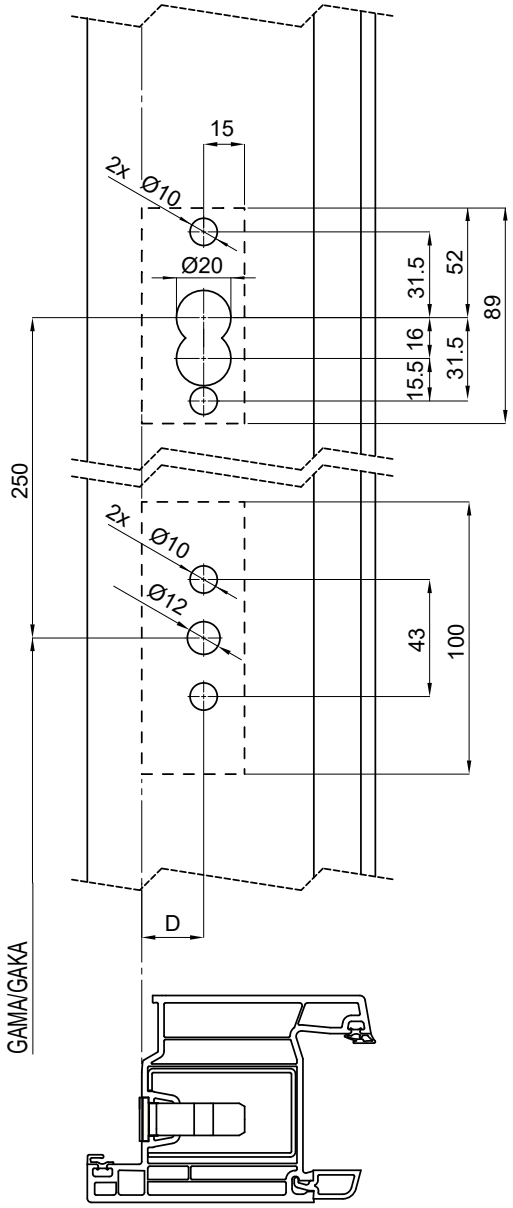


GM - Central handle position
GK - Constant handle position

Drive rod GAKA.PP ... and GAMA.PP ... D 25-45

Drilling and milling pattern for drive and profile cylinder lock cases
Backsets 25, 30, 35, 40 or 45 mm

PVC-U profile

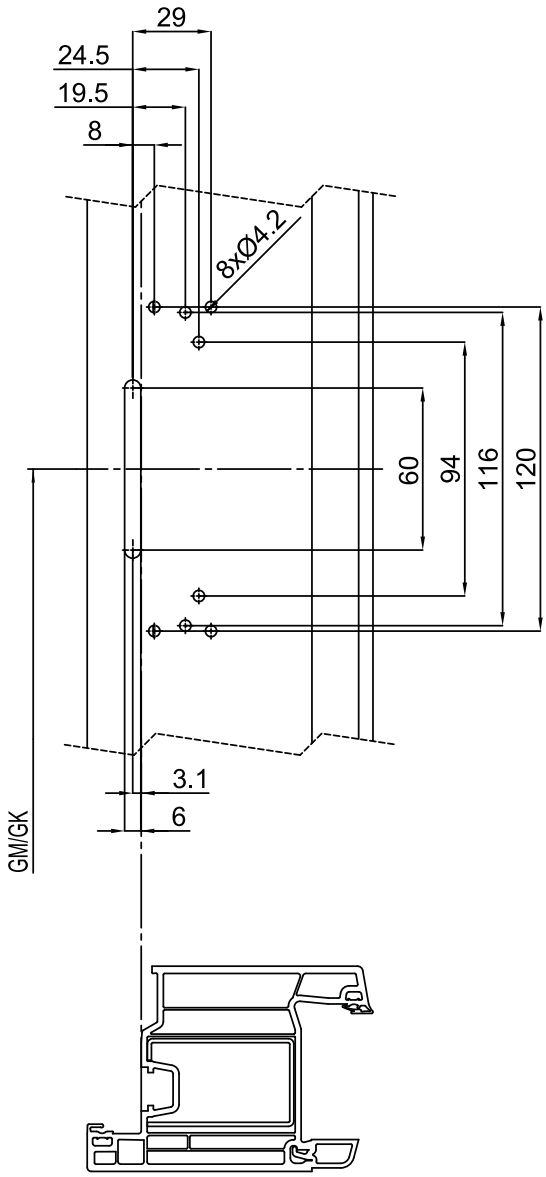


GAMA - drive rod central handle position, lockable
GAKA - drive rod constant handle position, lockable

Screw-on drive ASG

Drilling and milling pattern for screw-on drive ASG

PVC-U profile

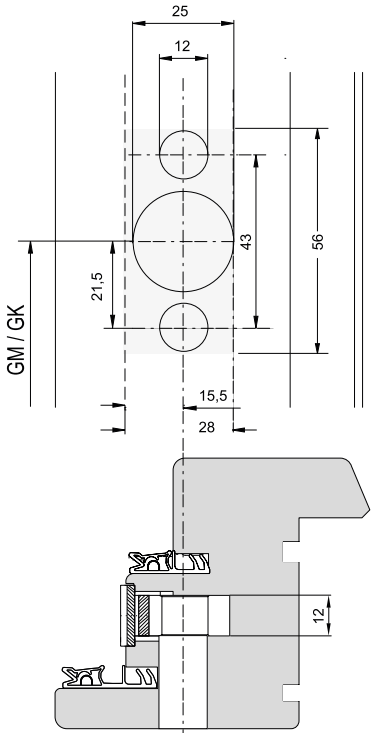


GM - Central handle position
GK - Constant handle position

Drive rod GAK ... and GAM ... D 15.5

Drilling and milling pattern for gear lock case Backset D 15.5 mm

Wooden profile

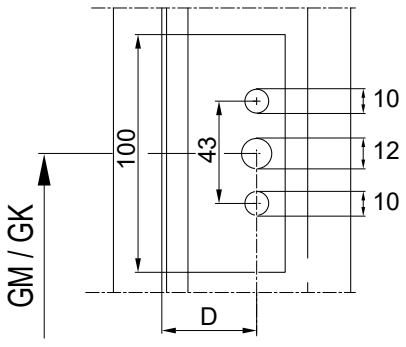


GM - Central handle position
GK - Constant handle position

Drive rod GAK ... and GAM ... D 25-50

Drilling and milling pattern for gear lock case Backsets 25, 30, 35, 40, 45 or 50 mm

Wooden profile

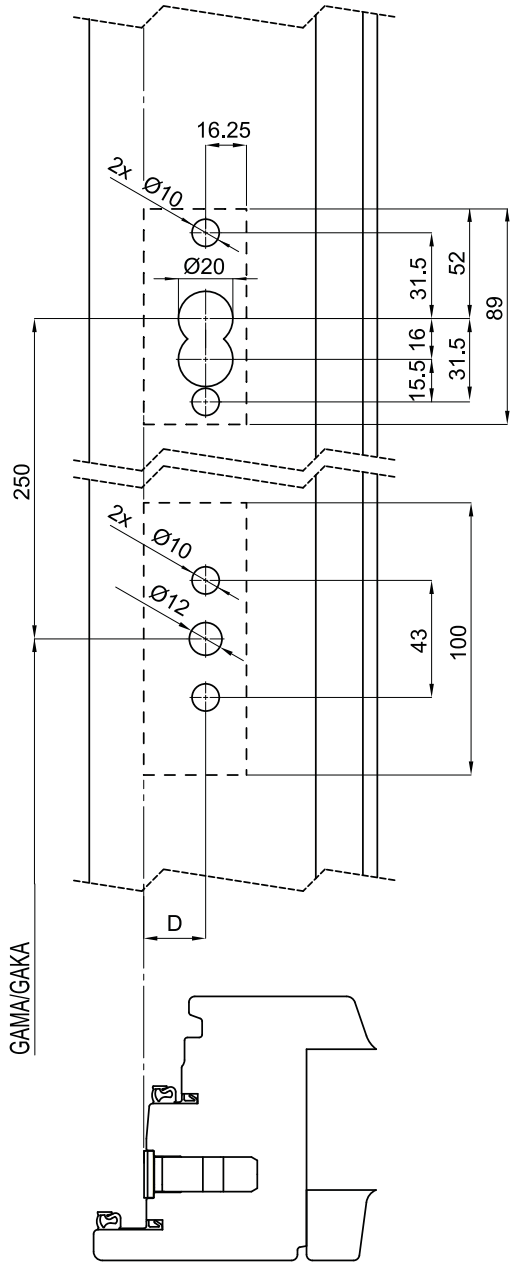


GM - Central handle position
GK - Constant handle position

Drive rod GAKA.PP ... and GAMA.PP ... D 25-45

Drilling and milling pattern for drive and profile cylinder lock cases
Backsets 25, 30, 35, 40 or 45 mm

Wooden profile

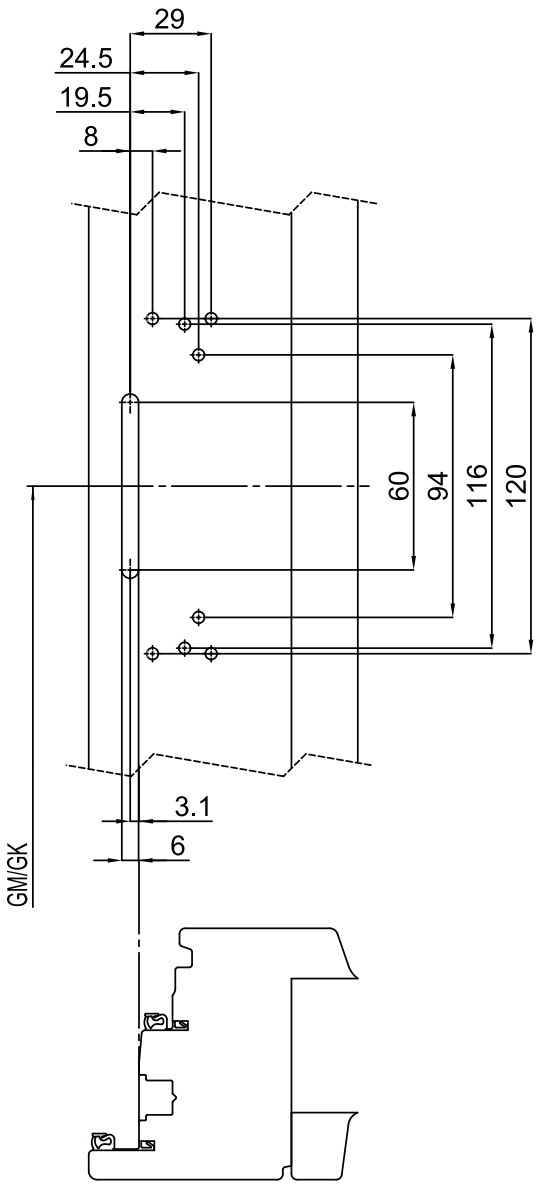


GAMA - drive rod central handle position, lockable
GAKA - drive rod constant handle position, lockable

Screw-on drive ASG

Drilling and milling pattern for screw-on drive ASG

Wooden profile



GM - Central handle position
GK - Constant handle position

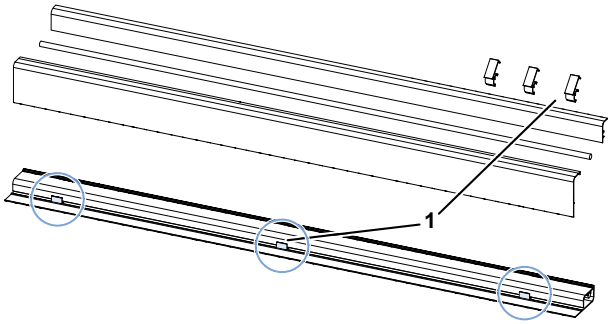
Recommendation for preparing the installation

In addition to the information in subchapter "Checking the scope of delivery", Winkhaus recommends the following activities for preparing the installation:

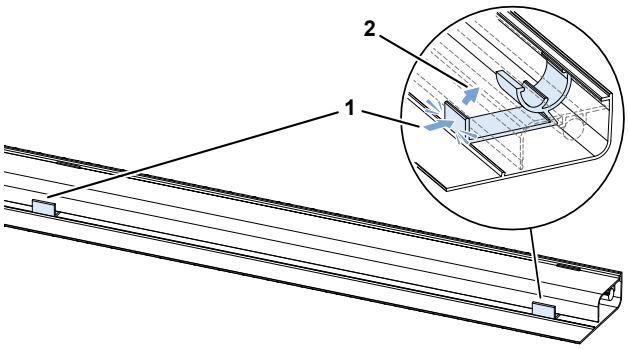
- Remove transport protection from e.g. cover profiles and coupling rods.
- Provide components of the activPilot central locking system according to quantity and size determination
- Holes and milling for gear cases should be made before starting the work steps described below "Mounting the fitting parts on the sash".

Remove the transport protection from the covering profile and coupling rod.

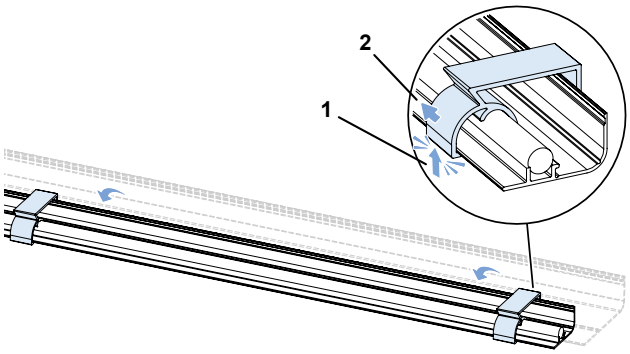
The bottom and top covering profiles as well as the coupling rod are delivered fixed with several transport clips (1).



1. Gently press in the transport clip (1) and push it slightly upwards (2). This allows the upper covering profile and coupling rod to be loosened.



2. By further pressing the transport clip (1) and moving it upwards (2), the coupling rod can now also be released from the upper covering profile.



6.4 Mounting of fittings on sash

6.4.1 Cutting to length of fittings (Somatec fitting punch)

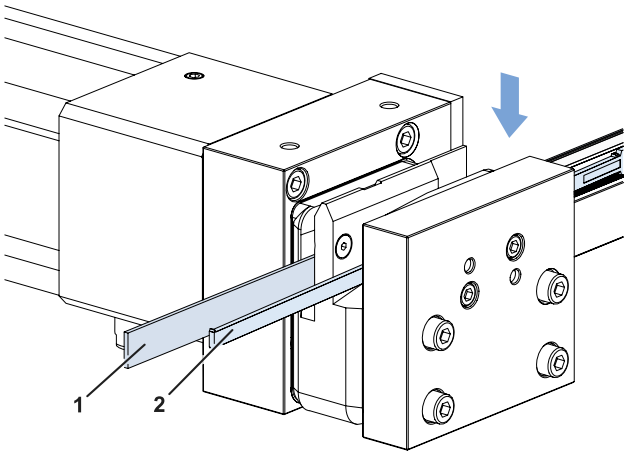
Here you will find a detailed description of how to cut to length the fittings, which is referred to in the Mounting Instructions.

The following Somatec fitting punching tools are available:

- PUNCH CROPPER SOMATEC GE.LS (shown here)
- PUNCH CROPPER SOMATEC GE.RS

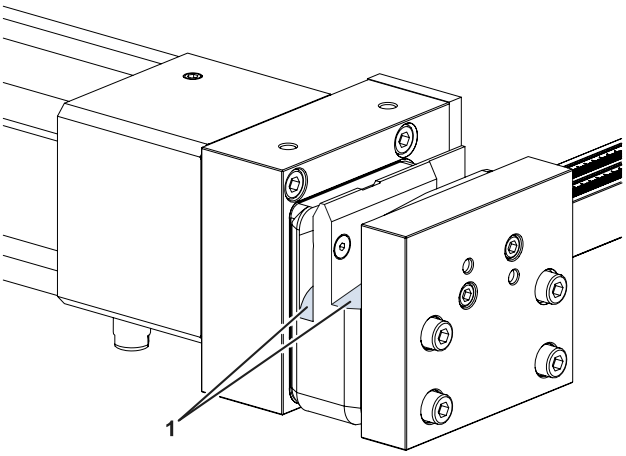
Cutting to length

1. Insert the component to be cut to length into the punch.
2. Always insert the face plate (1) and drive rod (2) perpendicularly from the top with the face plate (1) pointing to the pressure cylinder.
3. Adjust the sash rebate size with the help of the ruler.
4. Press the foot switch to cut to length.
5. After punching, always remove the face plate (1) and drive rod (2) perpendicularly in an upwards direction.



IMPORTANT

Always keep the supporting surfaces of the punch (1) clean.



Ruler description

The ruler must be adjusted to cut to length the components. To do this, move the slider to the correct position and select the correct scale.

Position the slider (1)

Position: VSM-ASG

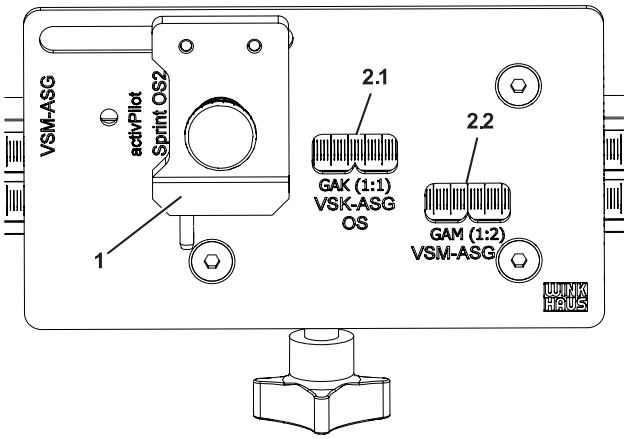
- For connection rod VSM-ASG...

Position: activPilot

- For all activPilot components

Position: Sprint OS2

- For top rods activPilot Sprint OS2....E2....



Select scale (2.1/2.2) and set to the correct sash rebate size.

Scale (2.1): GAK (1:1), VSK-ASG and OS

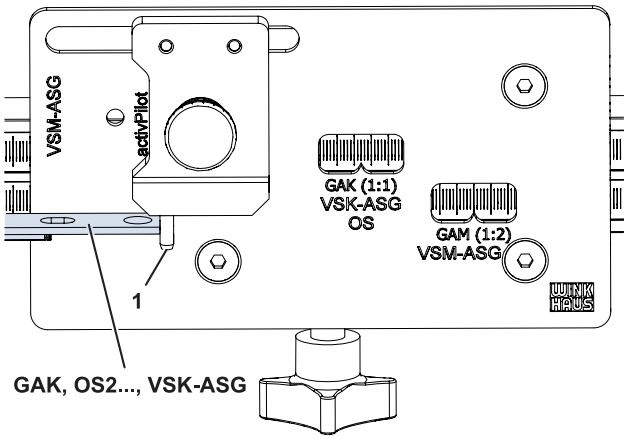
- For all components with constant handle position / if cut to length on one side

Scale (2.2): GAM (1:2) and VSM-ASG

- For all components with central handle position / if cut to length on both sides
- If the GAM (1:2) and VSM-ASG scale is moved by one graduation line, this corresponds to a real change in length of 2 mm.

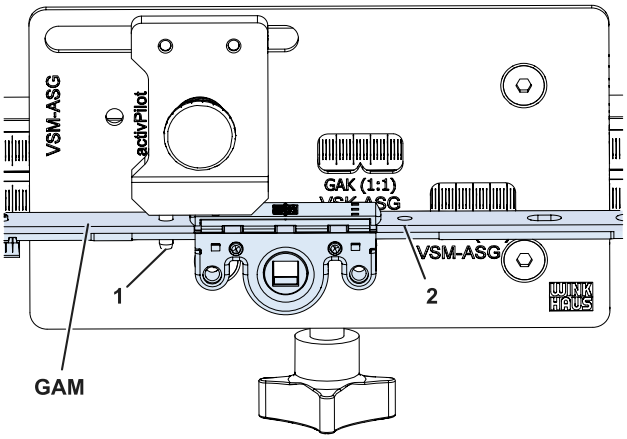
Cutting to length of drive rod GAK/GASK (constant handle position), top rod OS2 and connection rod VSK-ASG

1. Set the slider to the “activPilot” position.
2. Set the scale “GAK (1:1), VSK-ASG, OS” to the correct sash rebate size.
3. Place drive rod GAK, top rod OS2 or connection rod VSK-ASG on positioning pin (1) and cut to length.



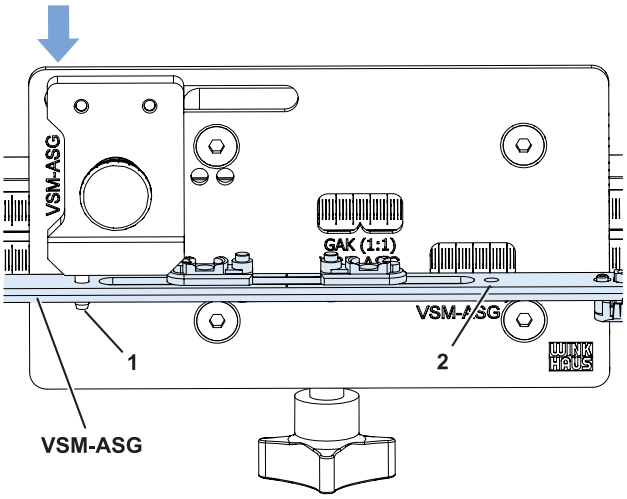
Shorten the drive rod GAM (central handle position)

1. Set the slider to the “activPilot” position.
2. Set the scale “GAM (1:2), VSM-ASG” to the correct sash rebate size.
3. Place drive rod on positioning pin (1) and cut to length.
4. After cutting to length the first side (1), turn the drive rod 180° and repeat cutting (2).



Cutting to length of VSM-ASG connection rod (primePort)

1. Set the slider to the “VSM-ASG” position.
2. Set the scale “GAM (1:2), VSM-ASG” to the correct sash rebate size.
3. Place the VSM-ASG connection rod on the positioning pin (1) and cut to length.
4. After cutting to length the first side (1), turn the connection rod 180° and repeat cutting (2).



6.4.2 Cutting to length of fittings (Reiplinger fitting punch)

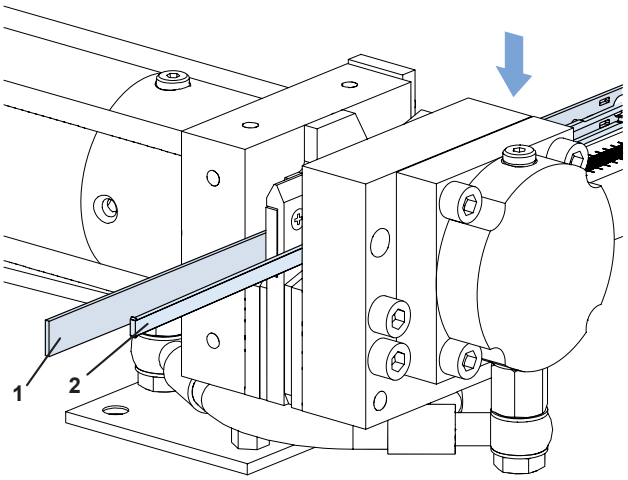
Here you will find a detailed description of how to cut to length the fittings, which is referred to in the Mounting Instructions.

The following Reiplinger fitting punching tools are available:

- PUNCH CROPPER AP/FS LS (shown below)
- PUNCH CROPPER AP/FS RS

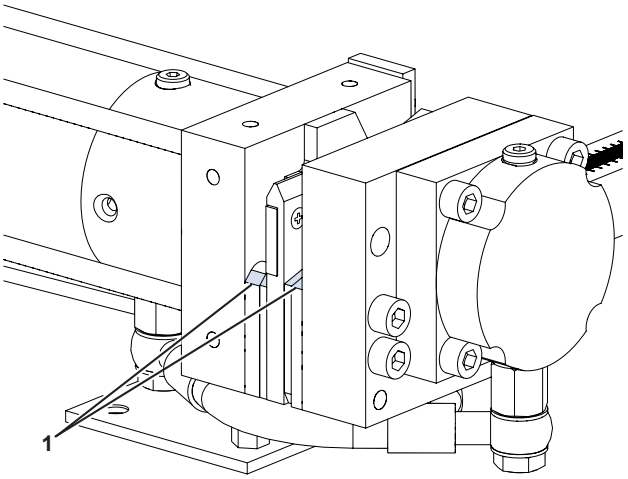
Cutting to length

1. Insert the component to be cut to length into the punch.
2. Always insert the face plate (1) and drive rod (2) perpendicularly from the top with the face plate (1) pointing to the pressure cylinder.
3. Adjust the sash rebate size with the help of the ruler.
4. Press the foot switch to cut to length.
5. After punching, always remove the face plate (1) and drive rod (2) perpendicularly in an upwards direction.



IMPORTANT

Always keep the supporting surfaces of the punch (1) clean.



Ruler description

The ruler must be adjusted to cut to length the components. Select the correct scale for this purpose.

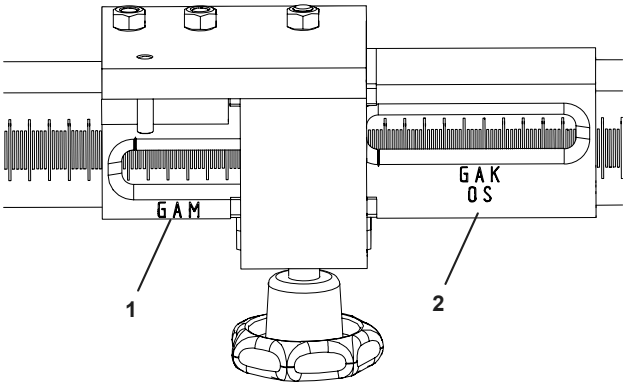
Select scale and set to the correct sash rebate size.

Scale (1): GAM

- For all components with central handle position / if cut to length on both sides
- If the GAM scale is moved by one graduation line, this corresponds to a real change in length of 2 mm.

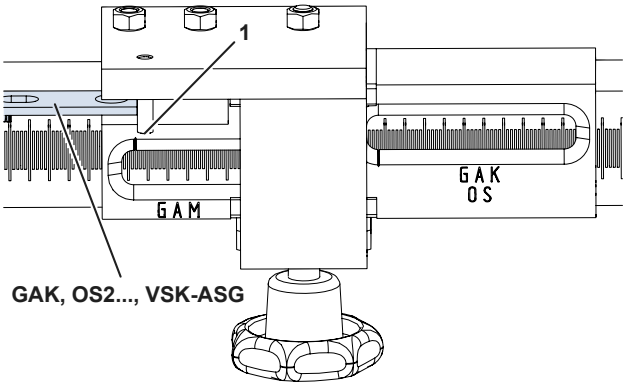
Scale (2): GAK/OS

- For all components with constant handle position / if cut to length on one side



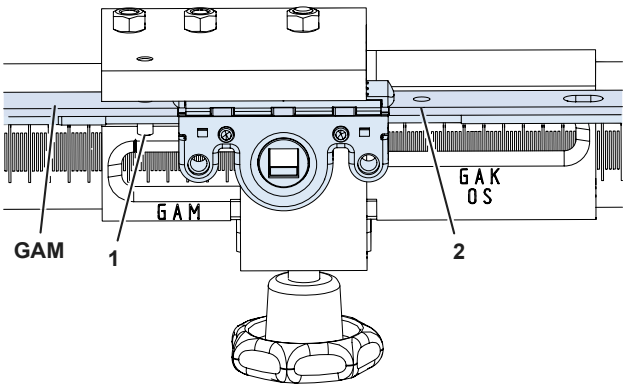
Cutting to length of drive rod GAK/GASK (constant handle position), top rod OS2 and connection rod VSK-ASG

1. Set the scale “GAK/OS” to the correct sash rebate size.
2. Place drive rod GAK, top rod OS2 or connection rod VSK-ASG on positioning pin (1) and cut to length.



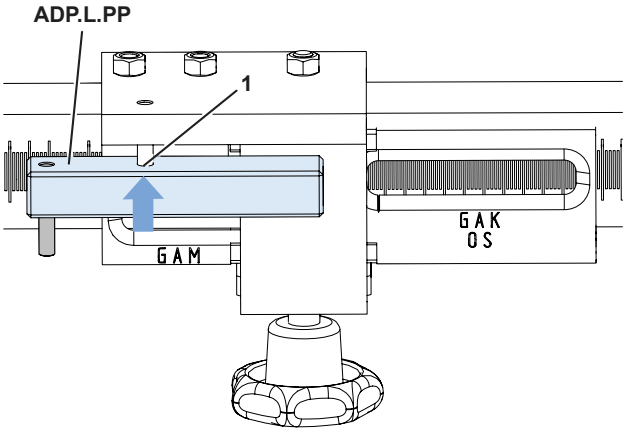
Shorten the drive rod GAM (central handle position)

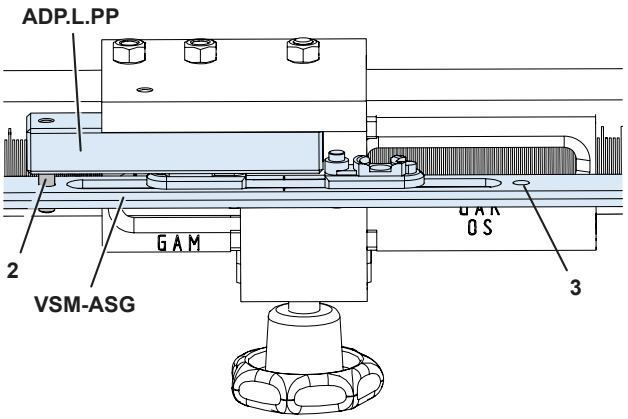
1. Set the scale “GAM” to the correct sash rebate size.
2. Place drive rod on positioning pin (1) and cut to length.
3. After cutting to length the first side (1), turn the drive rod 180° and repeat cutting (2).



Cutting to length of VSM-ASG connection rod (primePort)

1. Place the adapter ADP.L.PP on the positioning pin (1).
2. Set the scale “GAM” to the correct sash rebate size.
3. Place the VSM-ASG connection rod on the positioning pin of the adapter (2) and cut to length.
4. After cutting to length the first side (2), turn the connection rod 180° and repeat cutting (3).





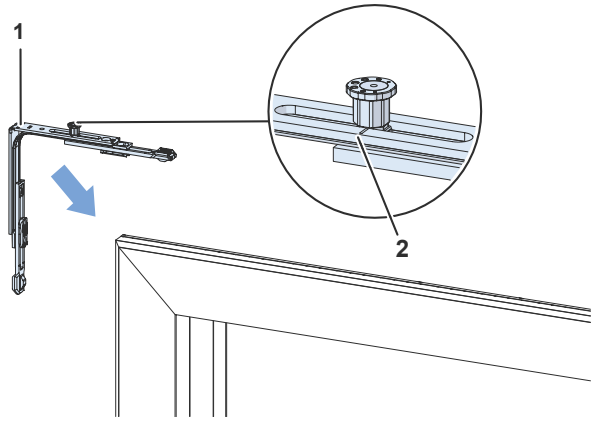
6.4.3 Installing the central locking system for the variants primePort SK-S and primePort PAS

Note: The following diagrams show the version for a left-hand handle position (looking at the window from the inside). When fitting a window for right-hand use, the figures will be mirror-inverted.

Note: All installation parts of the central locking system are centrally locked. The centre position is indicated by a notch mark; see close-up diagram.

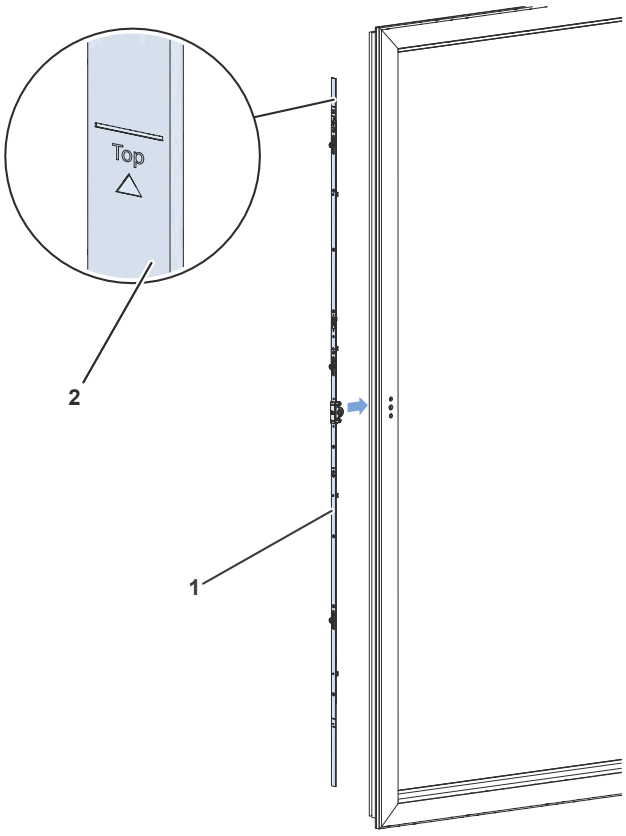
Installing corner drives

1. Insert corner drive (1) into the fitting groove and fix with 2 screws.
2. Fit the other corner drives in the same way.



Inserting the drive rod

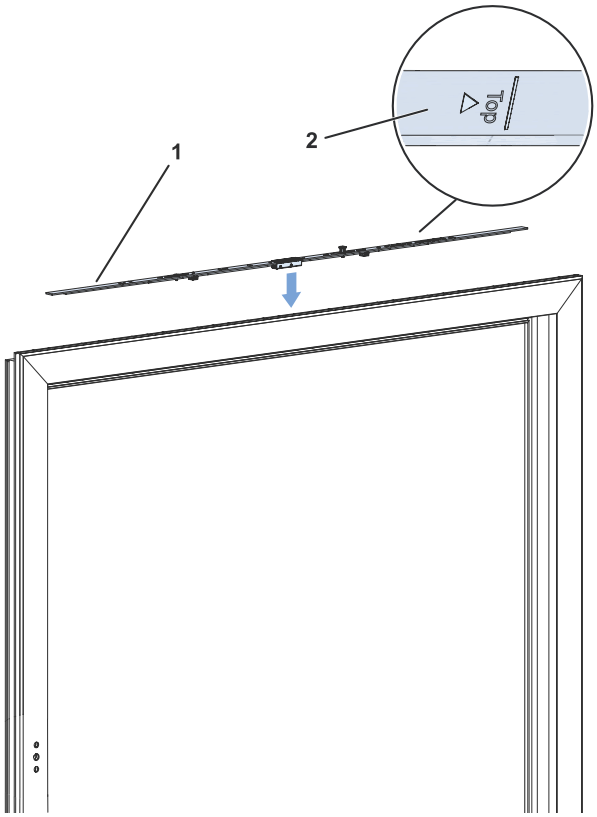
1. Measure sash rebate height (FFH), then cut to length drive rod (1) and screw on.
2. Pay attention to marking “arrow” for correct installation direction (2).



Mounting the top connection rod

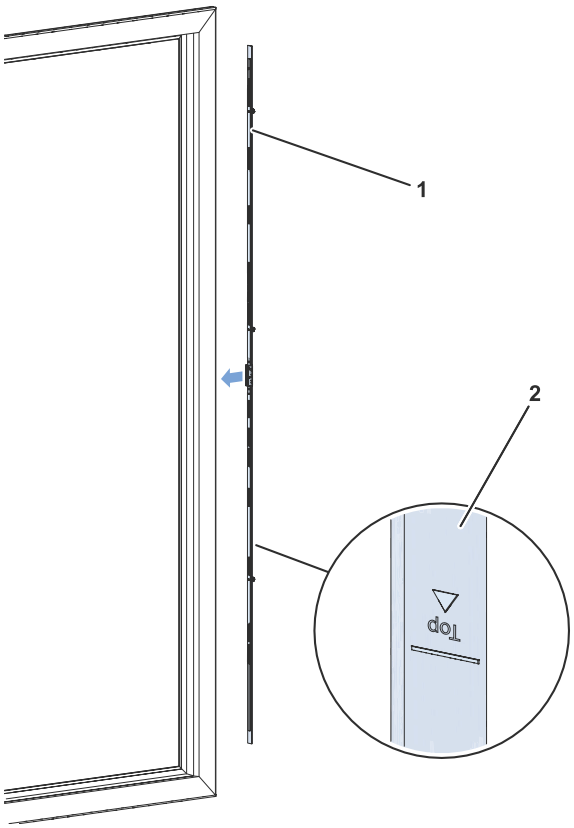
1. Measure sash rebate width (FFB), then cut to length connection rod (1) and screw on.
2. Pay attention to marking “arrow” for correct installation direction (2).

   The arrow points to the side opposite the drive rod.



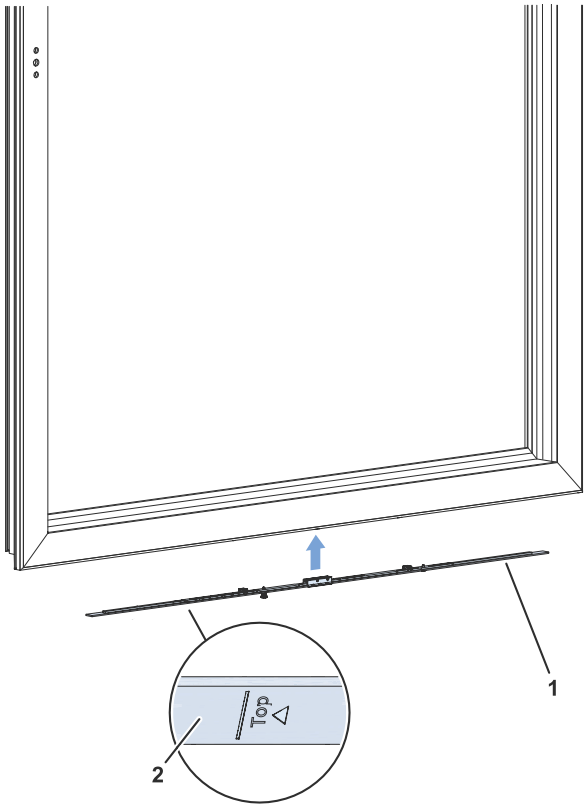
Mounting the connection rod opposite the drive rod

1. Measure sash rebate height (FFH), then cut to length connection rod (1) and screw on.
2. Pay attention to marking “arrow” for correct installation direction (2).



Mounting the bottom connection rod

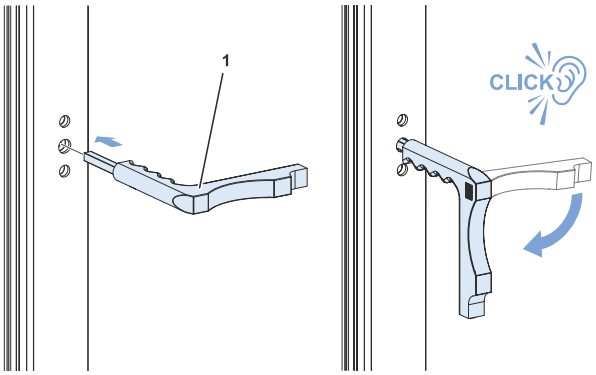
1. Measure sash rebate width (FFB), then cut to length connection rod (1) and screw on.
2. Pay attention to marking “arrow” for correct installation direction (2).
   The arrow points to the side of the drive rod.



Initial operation of central locking system

The 7 mm square handle can be used for the initial actuation of the central locking system. The handle set belonging to the product range can be installed on site at a later date.

1. Move the handle (1) to the 90° position and insert the square pin into the drive retainer.
2. Turn the handle to release the central fastening.



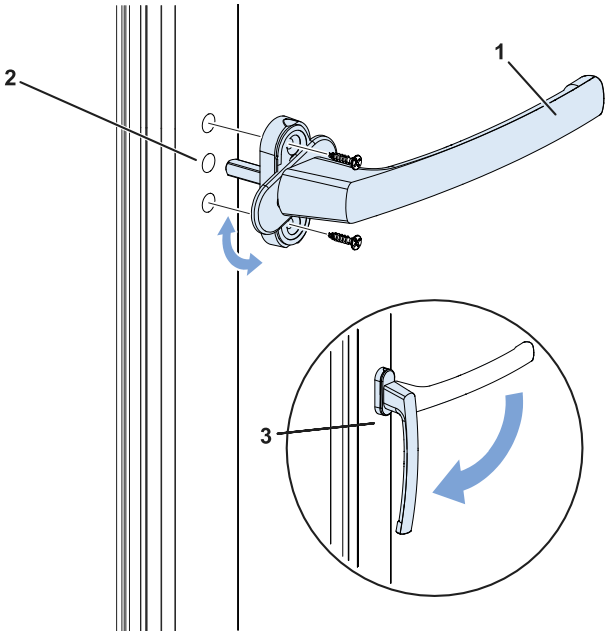
The handle will be stiffer than normal the first time it is used. A clicking noise will be heard during actuation.

If a fail-safe device is used, it must be deactivated or the window element must be moved to the locked position before it is operated for the first time.

Mounting the handle for the primePort SK-S variant

The handle set belonging to the product range can also be installed on site at a later date.

1. Move handle (1) to 90° position.
2. Position the handle set on the sash, insert it into the drive retainer (2) with the square pin and screw in place.
3. Turn the handle to release the central fastening (3).

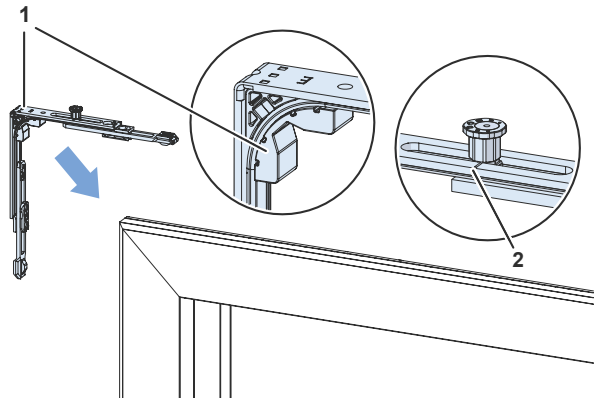


6.4.4 Installing the central locking system for handle-controlled variant primePort SK-Z

Note: All installation parts of the central locking system are centrally locked. The centre position is indicated by a notch mark; see close-up diagram.

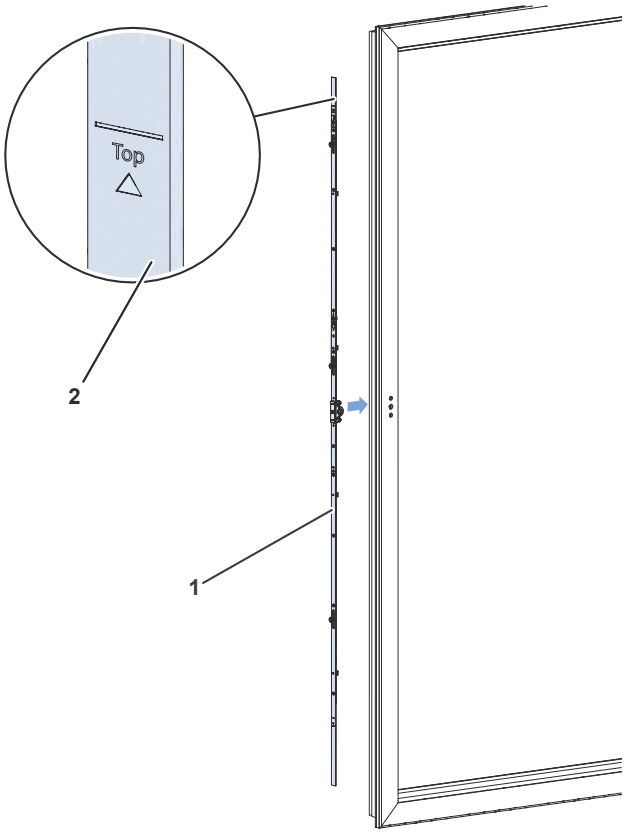
Installing corner drives

1. Insert the reinforced corner drive (1) at the top into the fitting groove on the drive side and fasten with 2 screws.
2. For the remaining positions use standard corner drives and install in the same way.



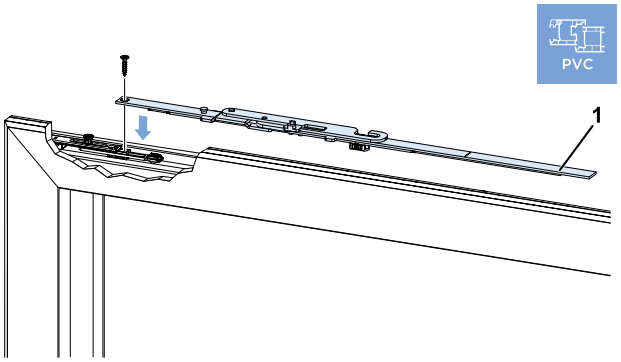
Insertion of reinforced drive rod

1. Measure sash rebate height (FFH), then cut to length reinforced drive rod (1) and screw on.
2. Pay attention to marking “arrow” for correct installation direction (2).



Mounting the stay arm for PVC-U windows

1. Couple the stay arm (1) with the already inserted (reinforced) corner drive and fix in place with screws.



From a sash rebate width (FFB) of 1301 mm, the stay arm version with 2 grippers must be used.

Depending on the sash rebate width (FFB), stay arms may also be combined with an interlocking rod (MK...). The interlocking rod is mounted on the corner drive opposite the drive side. This component combination determines the cut-to-length dimension of the stay arm.

Mounting the stay arm for wooden windows

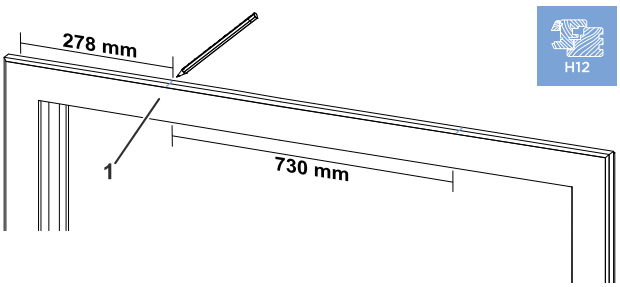
Routing of the sash

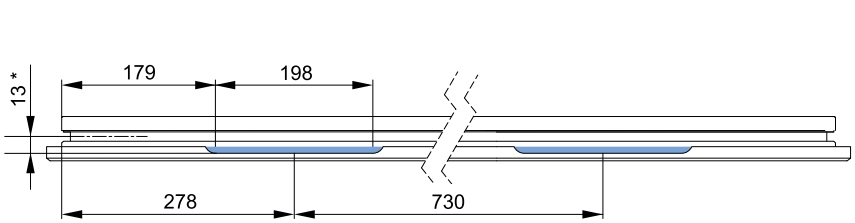
To ensure that the stay arm (6) can be installed correctly, the sash overlap must be cut out accordingly for window profiles with a groove centre position of 9 mm.

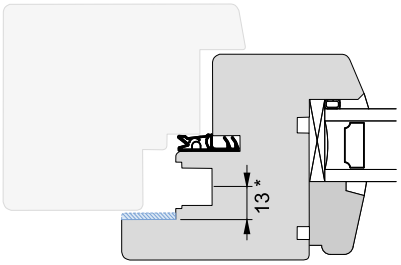
1. Mark the distance of 278 mm (centre of cut-out) on the sash overlap (1).

From a sash rebate width (FFB) of 1301 mm, the stay arm version with 2 grippers must be used.

For this purpose, mark an additional distance dimension up to the centre of the second cut-out (730 mm).

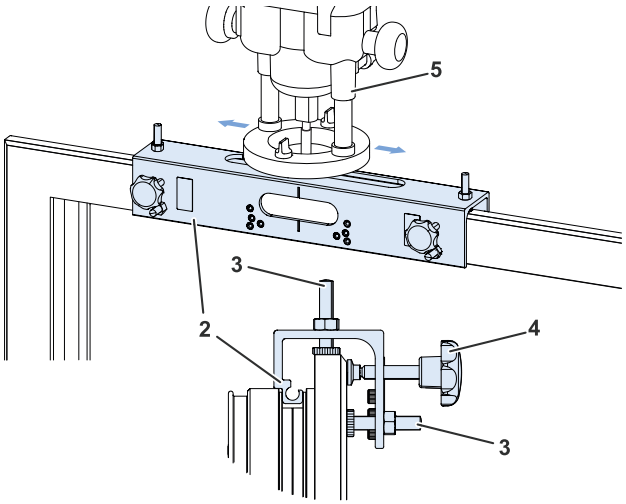






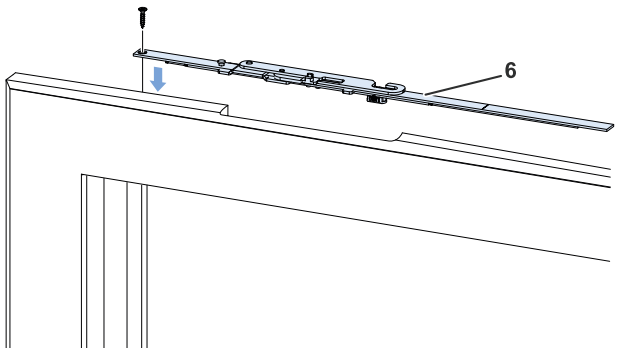
* 13 mm for groove centre position 9 mm;

2. Insert the jig into the fitting groove (2) from above and position it with the cut-out being in the centre of the marking.
3. Align the jig with the screws (3) at the top and side and fix in place with the star knob screws (4).
4. Place the router (5) on the jig and cut along the cut-out.



5. Couple the stay arm (6) with the already inserted (reinforced) corner drive and fix in place with screws.

Depending on the sash rebate width (FFB), stay arms may also be combined with an interlocking rod (MK...). The interlocking rod is mounted on the corner drive opposite the drive side. This component combination determines the cut-to-length dimension of the stay arm.



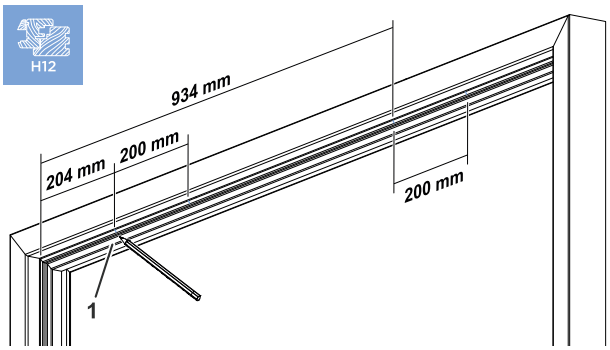
Routing of the frame

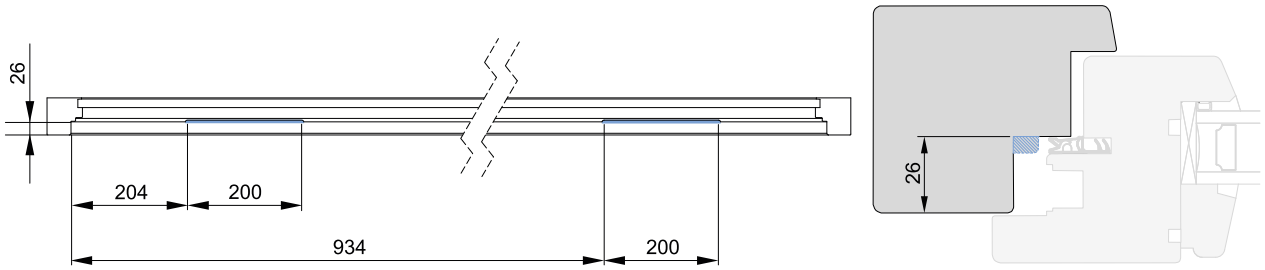
For a frame rebate depth of < 26 mm, the frame must be cut out accordingly so that the stay arm (6) can be installed correctly.

1. Mark the distance dimensions of 204 mm and 200 mm (beginning and end of cut-out) on the frame (1) and cut out the piece.

From a sash rebate width (FFB) of 1301 mm, the stay arm version with 2 grippers must be used.

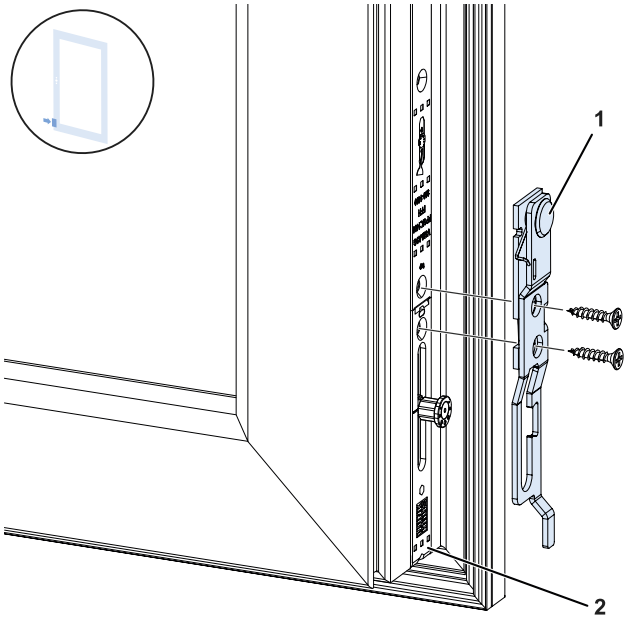
For this purpose, mark an additional distance dimension up to the beginning of the second cut-out (934 mm).





Installing the fail-safe device

1. Place the fail-safe device (1) on corner drive E11 (2) and screw the parts together.



Mounting the connection rod opposite the drive rod

For this assembly step, see:
"Mounting the connection rod opposite the drive rod", page 48

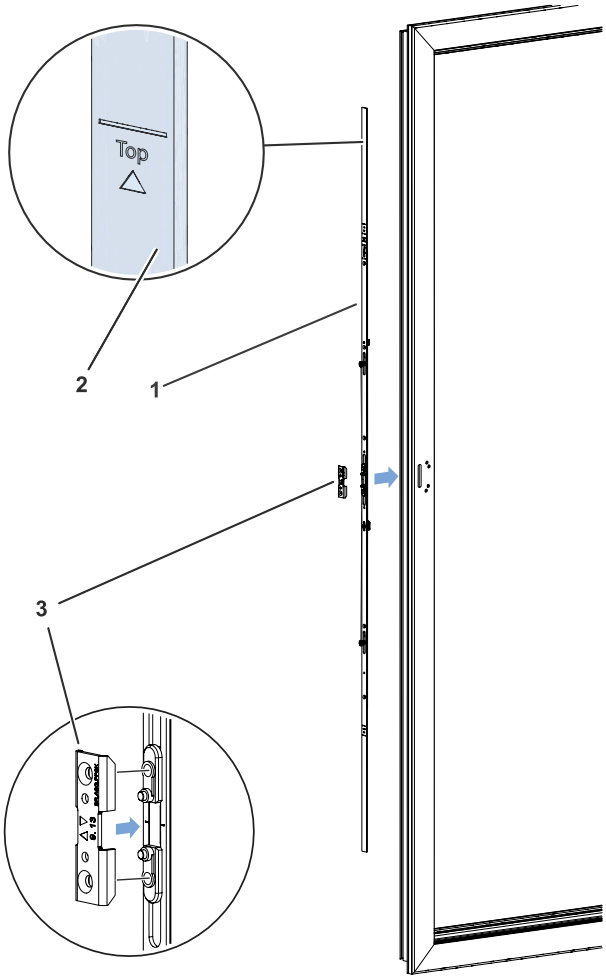
Mounting the bottom connection rod

For this assembly step, see:
"Mounting the bottom connection rod", page 49

Installing the screw-on drive for handle-controlled variant primePort SK-Z

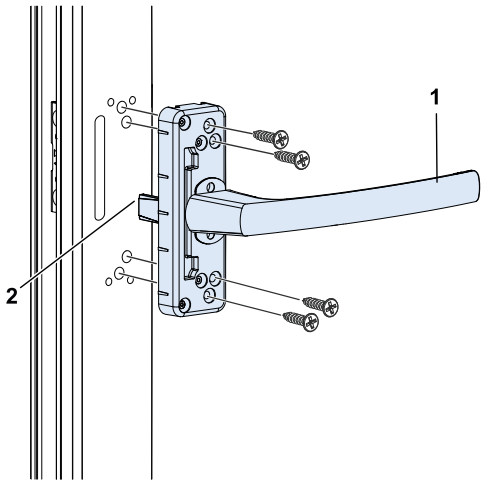
1. Measure sash rebate height (FFH) and cut to length drive rod for screw-on drive (1).
2. Pay attention to marking “arrow” for correct installation direction (2).
3. Screw the drive rod to the sash.
4. Screw bridge (3) to drive rod.

The bridge (3) for the screw-on drive can be used by turning it 180° for groove centre positions 9 or 13 mm.

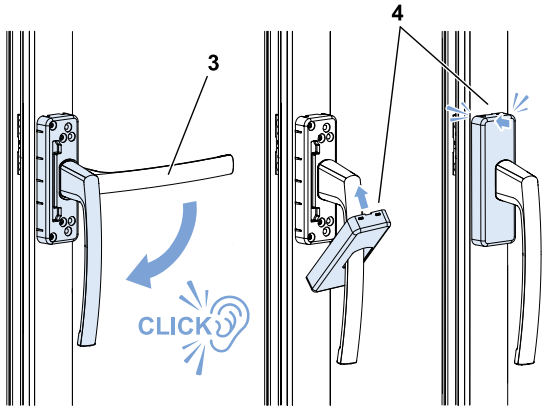


Mounting the handle with screw-on drive

1. Move handle (1) to 90° position.
2. Position the handle set on the sash and insert the tongue of the cam into the drive unit recess and screw tight (2).



3. Turn the handle to release the central fastening (3).
4. Fit the cover cap (4).



6.4.5 Installation of bogies

General mounting instructions

IMPORTANT

In the case of PVC-U profiles, the bogies and, if necessary, reinforcement parts must generally be bolted down to the steel reinforcement.
The screw length must be selected so that the screwing depth in steel is at least 5 mm.

For this reason:

- Drill holes generally through the first walls of the PVC-U profile and steel reinforcement.
- Exception: The bogie system fastening screws pointing to the sash overlap are only pre-drilled in the first wall and do **not** usually engage in the reinforcement.

The controlled bogie must be mounted on the drive side.
For a complete overview of all components, see "Overview graphic and description of variant S and variant Z", page 24

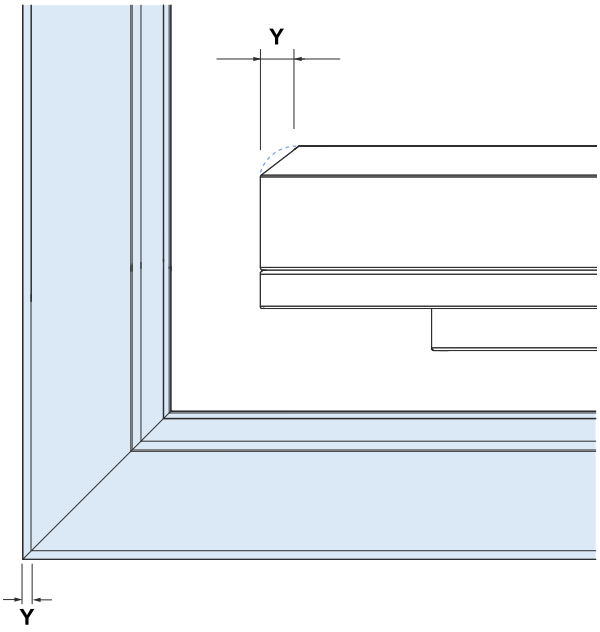
Number of holes for bogies

Sash weight [kg]	Number of bogies	Reinforcement part
Variant S (< 100)	2 bogies with 4 holes each	-
Variant S (> 100 up to < 160)	2 bogies with 4 holes each	2 reinforcement parts with 2 holes each
Variant Z (> 160 up to < 220)	2 tandem bogies with 8 holes each	2 reinforcement parts with 2 holes each

Jig bogie PPSK

Measure slope/rounding on the sash

1. Measure from the outer edge of the sash to the end of the slope/rounding to determine **dimension Y**.

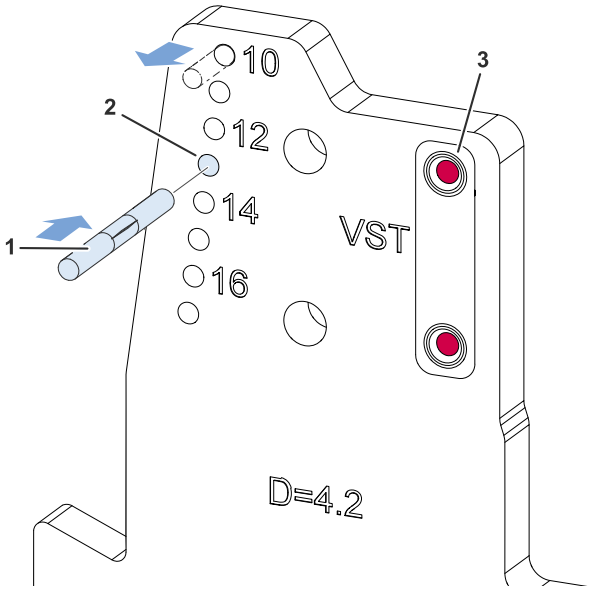


If there is no slope or rounding on the sash, **Y = 0** and the pin of the drilling jig must be inserted in hole position **10** (see next assembly step).

Determine pin position

1. Insert the pin (1) into the corresponding hole of the drilling jig (2).

   Example: **Y = 3 mm**
   Pin position: 10 + 3 = **13**

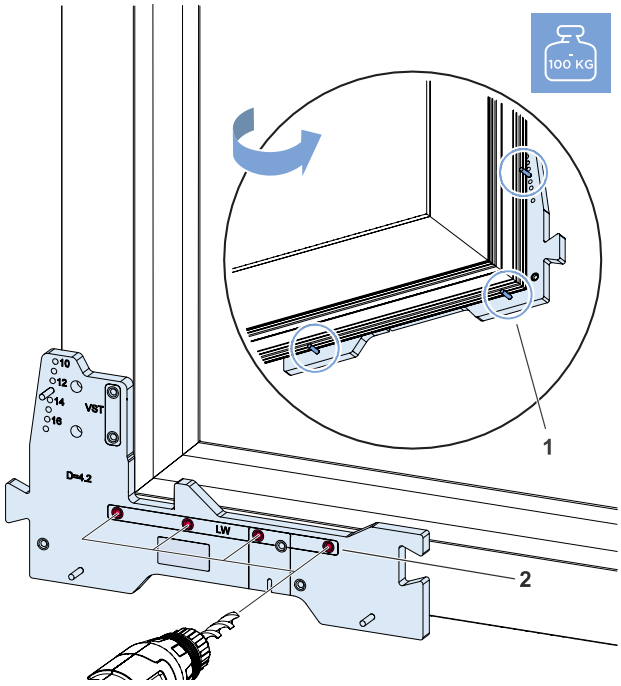


Only use the inner holes (VST) of the drilling jig (3) for the holes and screw connections of the reinforcement parts.

The following illustrations show the mounting of the bogies on the handle side. For the opposite side, the illustration is to be seen the other way round.

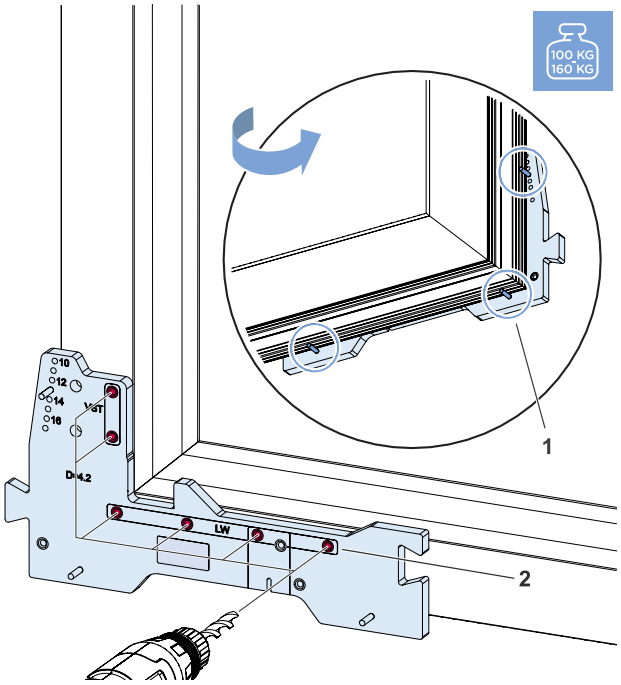
Positioning the drilling jig for sash weights up to 100 kg

1. Place the drilling jig with the pins flush on the lateral and lower outer edge of the sash (1).
2. Drill the holes for the bogies (2).



Applying the drilling jig for sash weights from 100 kg to 160 kg

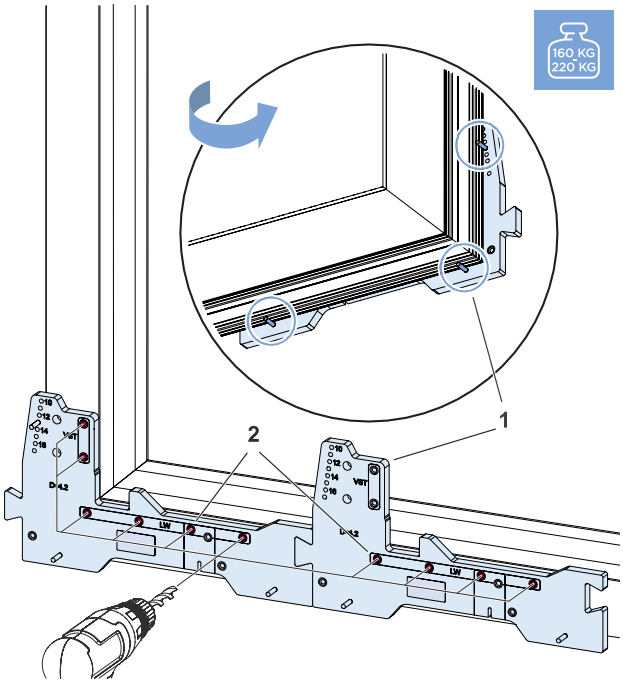
1. Place the drilling jig with the pins flush on the lateral and lower outer edge of the sash (1).
2. Drill holes for the bogies and the reinforcement parts (2).



Positioning the drilling jig for tandem bogies

Two drilling jigs are connected to each other (1) to install the tandem bogies.

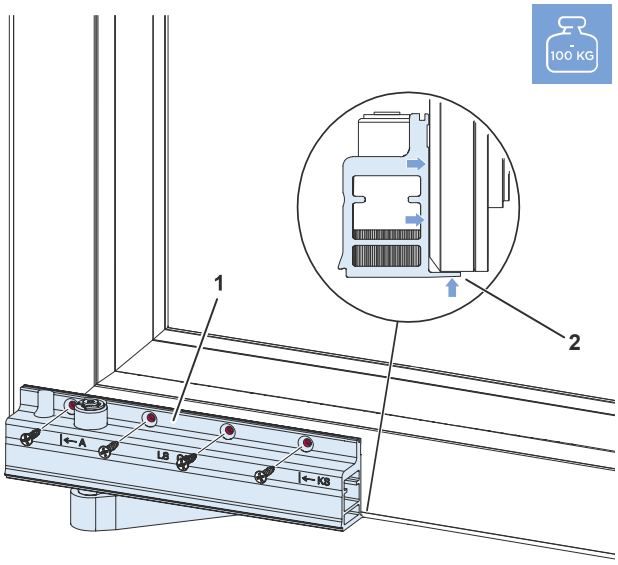
1. Position the drilling jigs with the pins flush on the lateral and lower outer edge of the sash (1).
2. Drill holes for the bogies and the reinforcement parts (2).



Installing the bogies for sash weights up to 100 kg

1. Position the bogie (1) on the sash.
2. Make sure that the bogie is completely in contact with the sash frame and the bogie flange with the sash overlap (2).

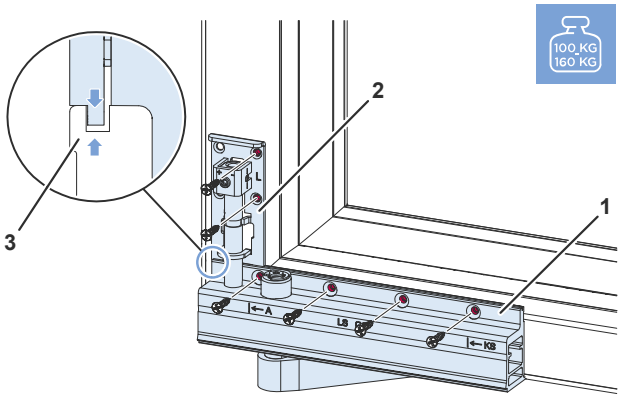
   This applies to all bogie types and sash weights.
3. Fasten the bogie to the frame with 4 screws.



Installing the bogies for sash weights up to 160 kg

1. Insert reinforcement part (2) into the bogie (1) from above.
2. Check if the reinforcement part is correctly seated in the groove of the bogie (3).
3. Position the bogie (1) and reinforcement part (2) on the sash.
4. Make sure that the bogie is completely in contact with the sash frame and the bogie flange with the sash overlap.

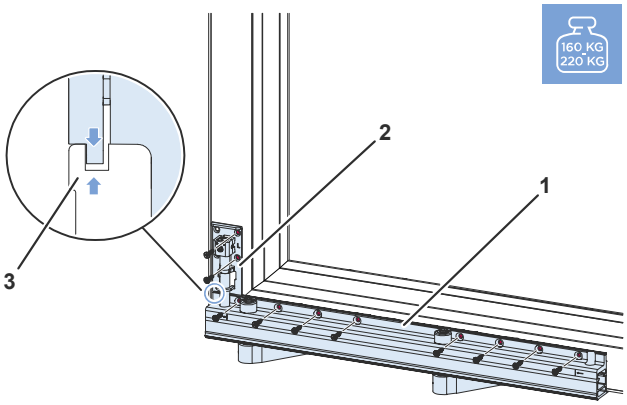
   This applies to all bogie types and sash weights.
5. Fasten the bogie to the frame with 4 screws.
6. Fix the reinforcement part to the frame with 2 screws.



Installing the tandem bogies for sash weights over 160 kg

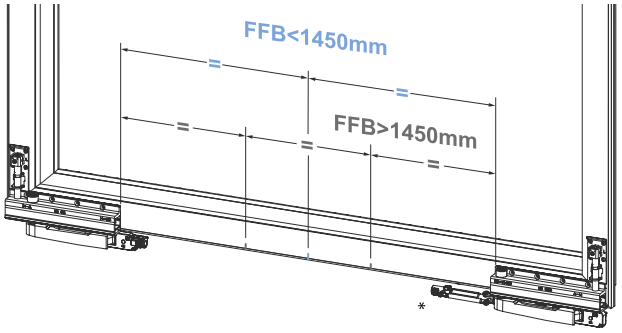
1. Insert reinforcement part (2) into the tandem bogie (1) from above.
2. Check if the reinforcement part is correctly seated in the groove of the bogie (3).
3. Position the tandem bogie (1) and reinforcement part (2) on the sash.
4. Make sure that the bogie is completely in contact with the sash frame and the bogie flange with the sash overlap.

   This applies to all bogie types and sash weights.
5. Fasten the tandem bogie to the frame with 8 screws.
6. Fix the reinforcement part to the frame with 2 screws.

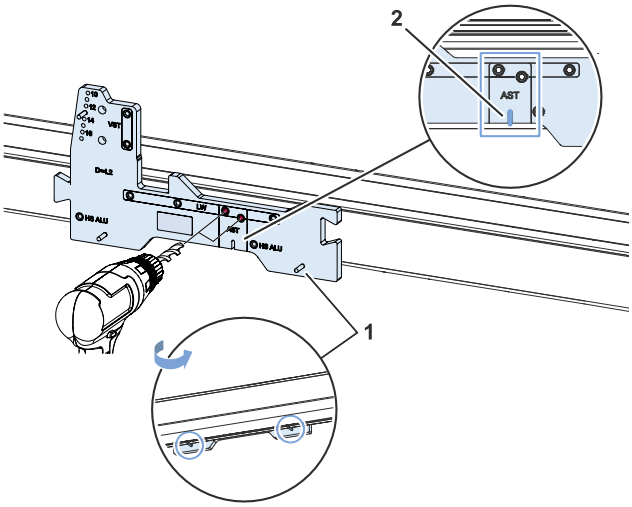


6.4.6 Mounting the support piece

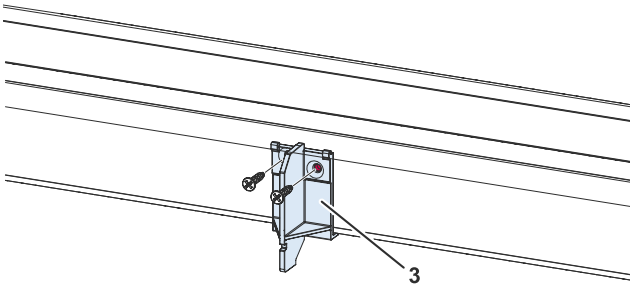
1. Determine and mark the position of the support piece (3) in the middle or at the same distance between the bogies.



2. Place the pins of the drilling jig flush on the lower overlap of the sash (1).
3. Place the drilling jig on the marking (2).
4. Drill holes for the support piece.



5. Screw the support part (3) onto the sash.



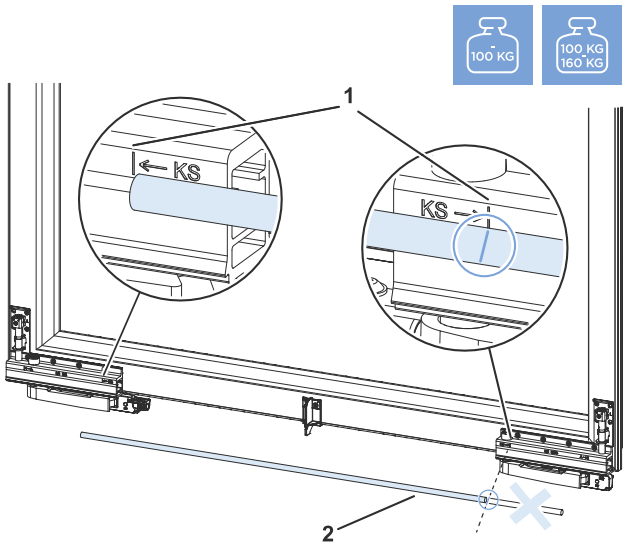
From a sash rebate width (FFB) of > 1450 mm, an additional support piece must be installed.

*Illustration shows the uncontrolled bogie including damper system.

6.4.7 Cutting to length of the coupling rod

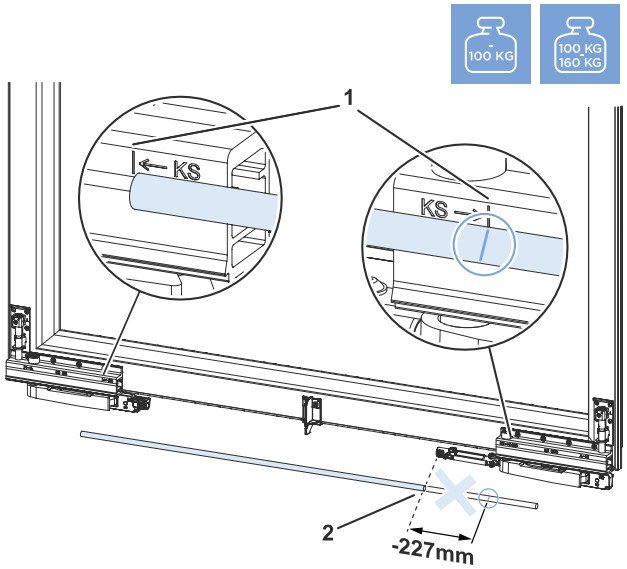
For sash weights from 100 kg to 160 kg (without damper system)

1. Place the coupling rod on the notch marks of the two bogies and mark accordingly (1).
2. Then cut to length and deburr the coupling rod (2).



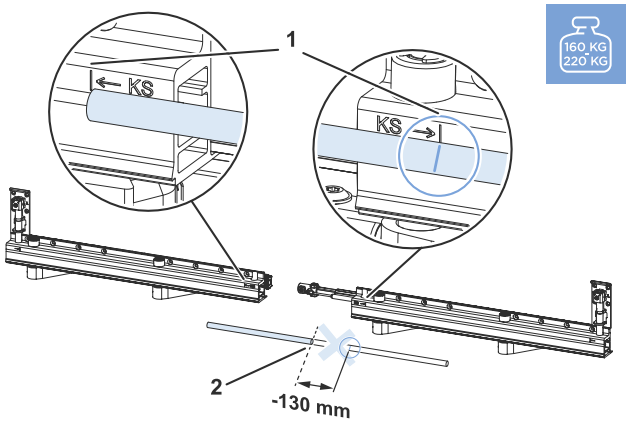
For sash weights from 100 kg to 160 kg (including damper system)

1. Place the coupling rod on the notch marks of the two bogies and mark accordingly (1).
2. Remove **227 mm** from the marking, then cut to length and deburr the coupling rod (2).



For tandem bogies (including damper system)

1. Place the coupling rod on the notch marks of the two bogies and mark accordingly (1).
2. Remove **130 mm** from the marking, then cut to length and deburr the coupling rod (2).

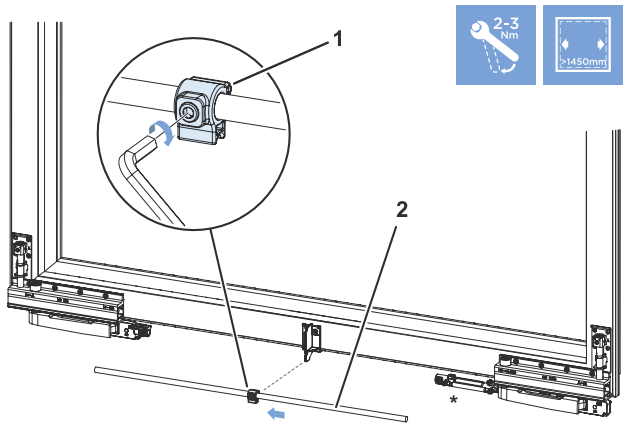


6.4.8 Mounting the support block

If the sash rebate width (FFB) is larger than 1450 mm, a support block must also be used.

1. Slide the support block (1) onto the coupling rod (2) in the same alignment as the mounted support piece. Pay attention to the correct installation direction (1).
2. Fix the support block with the grub screw (1).

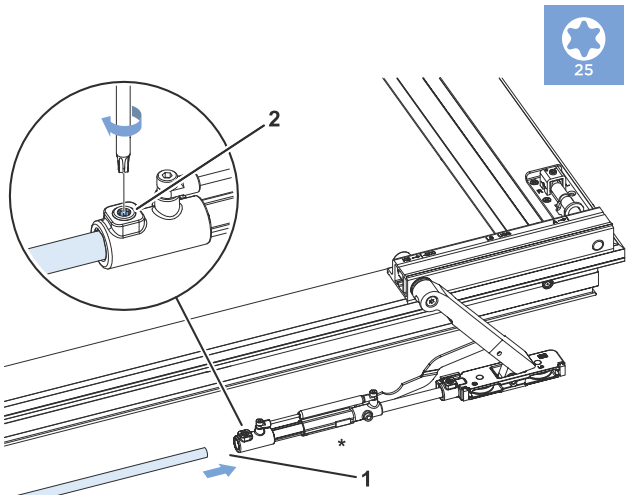
* Illustration shows a bogie including damper system



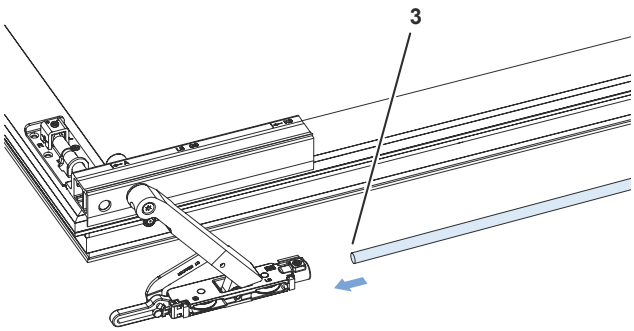
6.4.9 Mounting the coupling rod

1. Push the coupling rod (1) into the uncontrolled bogie opposite the drive side as far as it will go.
2. Fix the coupling rod with the grub screw (2).

* Illustration shows the uncontrolled bogie including damper system

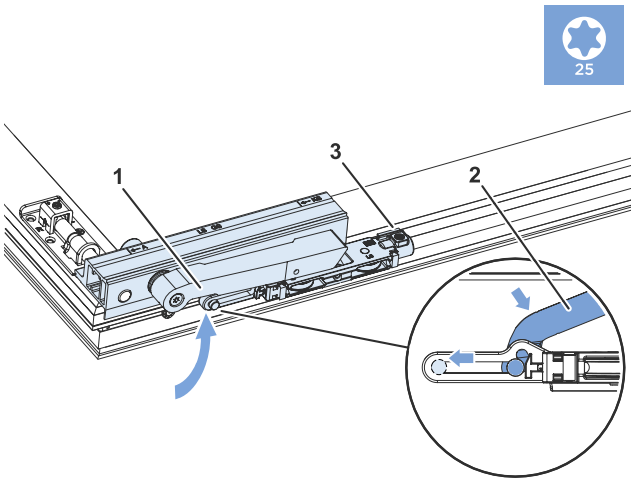


3. Slide the other end of the coupling rod (3) into the controlled bogie on the lock side and do not fix it yet.



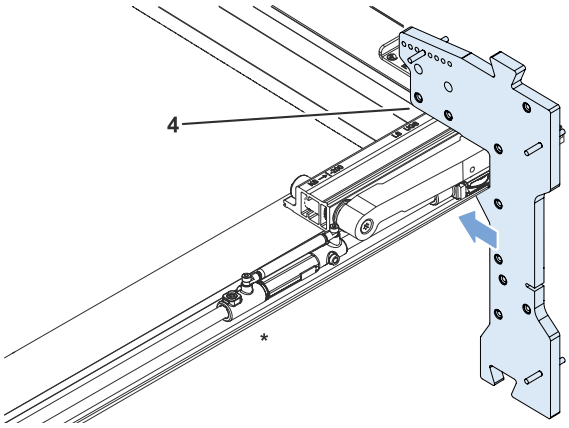
6.4.10 Parallel alignment of bogies

1. Fold in the bogies and move them to the closed position (1). If the control arm is engaged in the bogie, press to release (2).
2. Align the coupling rod parallel to the sash.
3. Fix the coupling rod with the grub screw (3).



A drilling jig can be used for each bogie for better alignment and fixing of the bogies.

4. Use the corresponding recess of the drilling jig to fix the folded bogie (4).



* Illustration shows the uncontrolled bogie including damper system

6.4.11 Cutting to length of the covering profile

It is advisable to cut the covering profile to length now that the bogies, the support piece and coupling rod have been installed.
The end caps and the covering profile can be fitted later on site, if necessary.

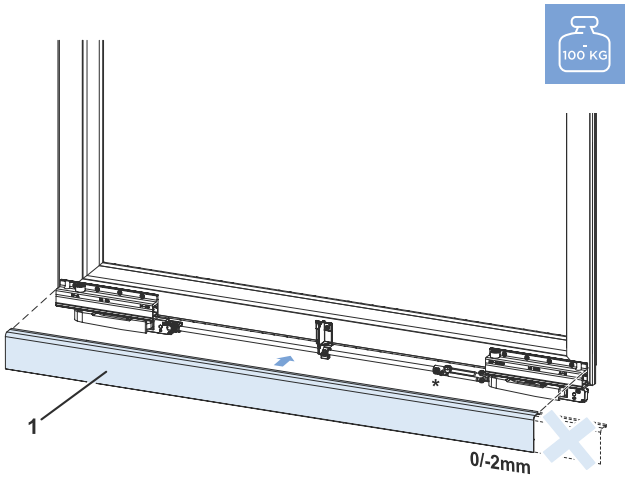
To fit the corresponding cover caps, see: "Installing the covering profile for bogies without reinforcement parts", page 86 & "Fitting the covering profile for bogies with reinforcement parts", page 87

Cutting to length the covering profile for bogies without reinforcement parts

For sashes without reinforcement parts (sash weight < 100 kg), the outer edges of the bogies serve as markings.

1. Mark the length of the covering profile (1) according to the outer edges of the bogies.
2. Cut to length the covering profile.

* Illustration shows the uncontrolled bogie including damper system

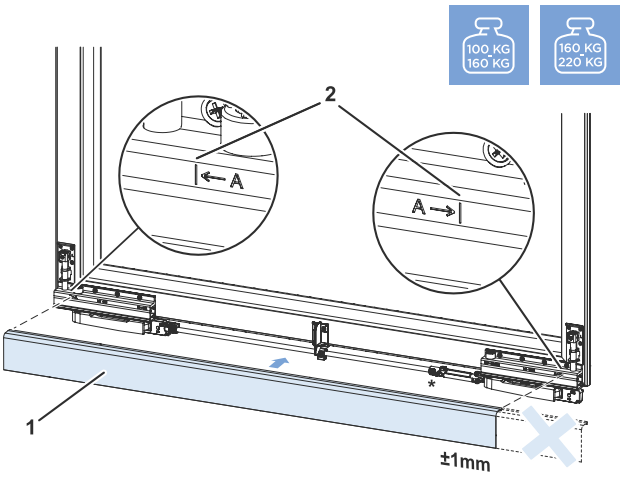


Cutting to length the covering profile for bogies with reinforcement parts

For sashes with reinforcement parts (sash weight > 100 kg), the notch marks A on the bogies serve as reference.

1. Mark the length of the covering profile (1) using the notch marks A on the bogies (2).
2. Cut to length the covering profile.

* Illustration shows the uncontrolled bogie including damper system

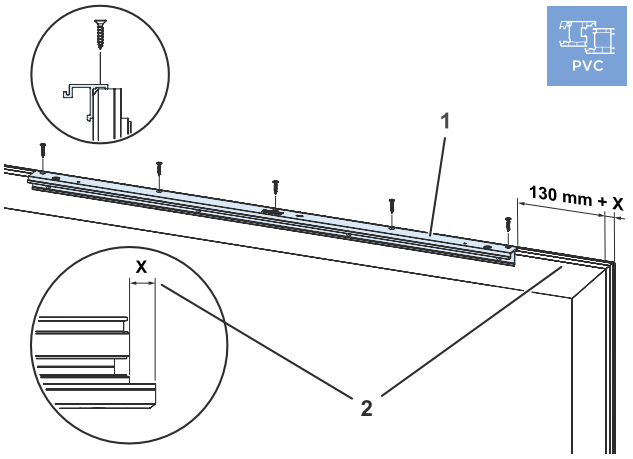


6.4.12 Installing the support rail

Installing the support rail for PVC-U elements

The correct position of the support rail (1) is always determined from the side opposite the drive rod (2).

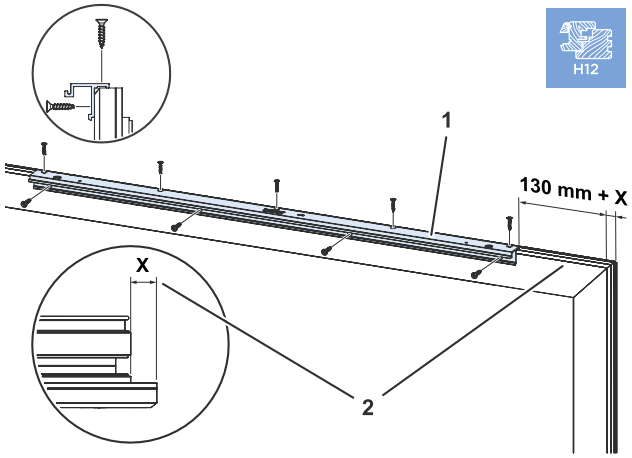
1. Sash overlap **X** + **130 mm** = **position of support rail** (2).
2. Position the support rail on the top edge of the sash, pre-drill (ø 3 mm) and screw to the top of the sash frame.



Installing the support rail for wooden elements

The correct position of the support rail (1) is always determined from the side opposite the drive rod (2).

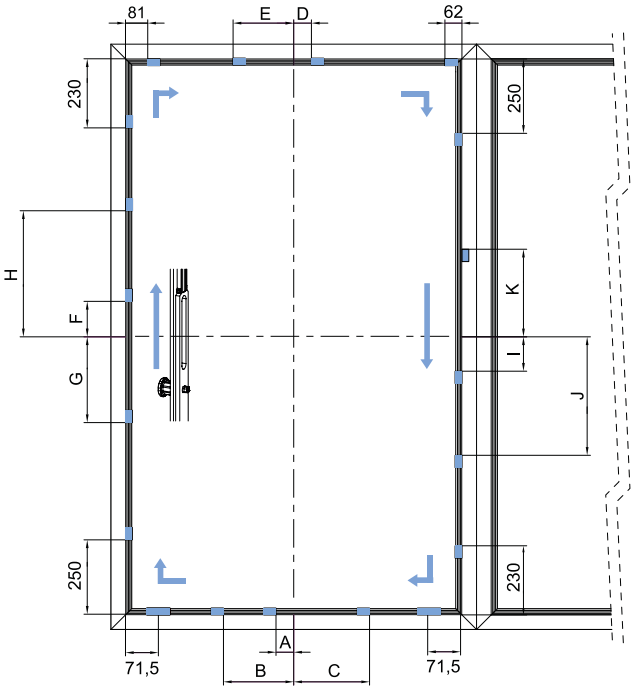
1. Sash overlap **X** + **130 mm** = **position of support rail** (2).
2. Position the support rail on the sash top edge, drill a hole (ø 3 mm) and screw it to the sash, first on the inside of the sash and then at the top sash frame.

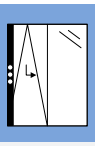


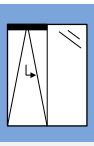
6.5 Mounting of fittings on the window frame

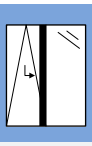
6.5.1 Positions of frame parts – tabular presentation

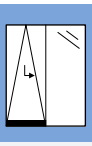
Slide-tilt element primePort SK 100 S and primePort SK 160 S GAM



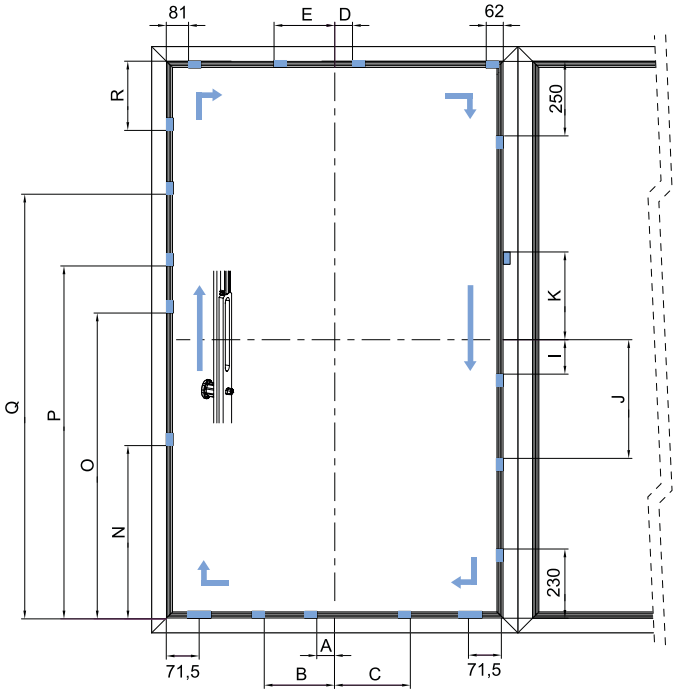
	FFH min. [mm]	FFH max. [mm]	Dim. G [mm]	Dim. F [mm]	Dim. H [mm]
GAM.1050-1	800	1050	-	127	-
GAM.1400-1	1051	1400	-	127	-
GAM.1400-2	1051	1400	223	127	-
GAM.1800-2	1401	1800	340	260	-
GAM.2300-3	1801	2300	520	127	692
MK.250-1 + GAM.2300-3 + MK.250-1	2301	2700	520	127	692

	FFB min. [mm]	FFB max. [mm]	Dim. E [mm]	Dim. D [mm]
VSAM.1050-1	800	1050	-	127
VSAM.1400-1	1051	1400	-	127
VSAM.1400-2	1051	1400	223	127
VSAM.1800-2	1401	1650	340	260

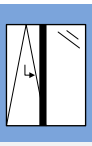
	FFH min. [mm]	FFH max. [mm]	Dim. K [mm]	Dim. I [mm]	Dim. J [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2300	520	127	692
MK.250-1 + VSAM.2300 + MK.250-1	2301	2700	520	127	692

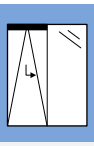
	FFB min. [mm]	FFB max. [mm]	Dim. C [mm]	Dim. A [mm]	Dim. B [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2000	520	127	692

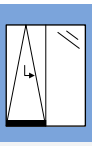
Slide-tilt element primePort SK 100 S and primePort SK 160 S GAK



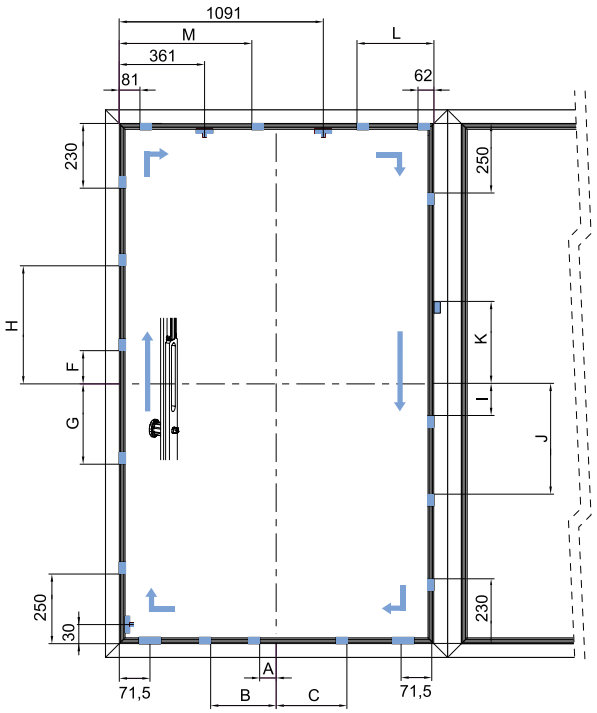
	FFH min. [mm]	FFH max. [mm]	Dim. N [mm]	Dim. O [mm]	Dim. P [mm]	Dim. Q [mm]	Dim. R [mm]	Handle position [mm]
GAK.945-1	710	945	385	-	-	-	-	260
GAK.1100-1	946	1100	500	-	-	-	-	375
GAK.1195-1	946	1195	500	-	-	-	-	470
GAK.1195-2	946	1195	250	750	-	-	-	470
GAK.1325-1	1101	1325	750	-	-	-	-	550
GAK.1325-2	1196	1325	385	750	-	-	-	550
GAK.1550-1	1326	1550	750	-	-	-	-	550
GAK.1550-2	1326	1550	385	1000	-	-	-	550
GAK.1775-2	1551	1775	750	1250	-	-	-	550
GAK.1775-3	1551	1775	385	750	1250	-	-	550
GAK.2000-2	1776	2000	750	1250	-	-	-	1050
GAK.2000-4	1776	2000	385	750	1250	1500	-	1050
GAK.2225-2	2001	2225	750	1500	-	-	-	1050
GAK.2225-4	2001	2225	385	750	1250	1750	-	1050
GAK.2225-2 + MK.250-1	2226	2475	750	1500	-	-	230	1050
GAK.2225-4 + MK.250-1	2226	2475	385	750	1250	1750	230	1050
GAK.2225-2 + MK.500-1	2476	2700	750	1500	-	-	480	1050
GAK.2225-4 + MK.500-1	2476	2700	385	750	1250	1750	480	1050

	FFH min. [mm]	FFH max. [mm]	Dim. K [mm]	Dim. I [mm]	Dim. J [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2300	520	127	692
MK.250-1 + VSAM.2300 + MK.250-1	2301	2700	520	127	692

	FFB min. [mm]	FFB max. [mm]	Dim. E [mm]	Dim. D [mm]
VSAM.1050-1	800	1050	-	127
VSAM.1400-1	1051	1400	-	127
VSAM.1400-2	1051	1400	223	127
VSAM.1800-2	1401	1650	340	260

	FFB min. [mm]	FFB max. [mm]	Dim. C [mm]	Dim. A [mm]	Dim. B [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2000	520	127	692

Slide-tilt element primePort SK 160 Z and primePort SK 220 Z GAM



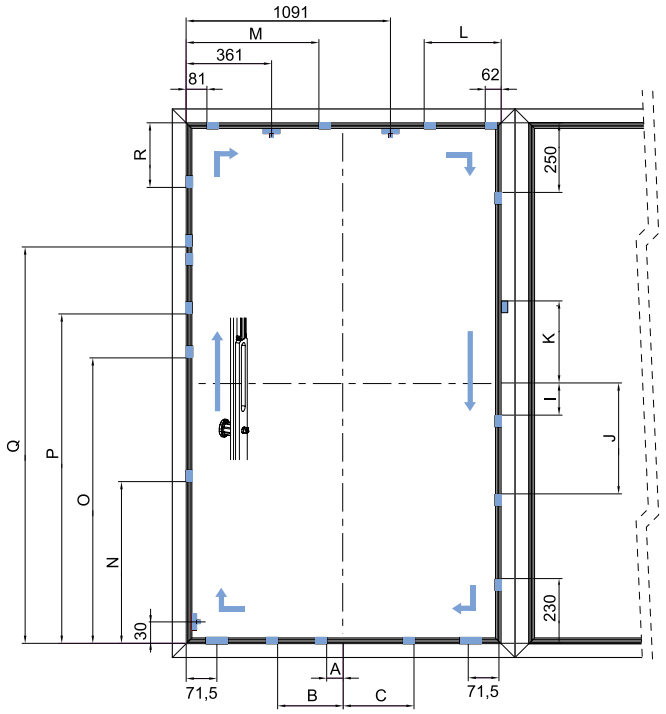
	FFH min. [mm]	FFH max. [mm]	Dim. G [mm]	Dim. F [mm]	Dim. H [mm]
GAM.1050-1	800	1050	-	127	-
GAM.1400-1	1051	1400	-	127	-
GAM.1400-2	1051	1400	223	127	-
GAM.1800-2	1401	1800	340	260	-
GAM.2300-3	1801	2300	520	127	692
MK.250-1 + GAM.2300-3 + MK.250-1	2301	2700	520	127	692

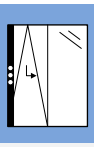
	FFB min. [mm]	FFB max. [mm]	Dim. L [mm]	Dim. M [mm]
MK.250-1	818	1068	230	-
MK.500-1	1069	1300	480	-
AS.PPSK.2000	1301	1548	-	820
AS.PPSK.2000 + MK.250-1	1549	1798	230	820
AS.PPSK.2000 + MK.500-1	1799	2000	480	820

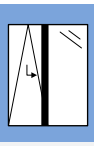
	FFH min. [mm]	FFH max. [mm]	Dim. K [mm]	Dim. I [mm]	Dim. J [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2300	520	127	692
MK.250-1 + VSAM.2300 + MK.250-1	2301	2700	520	127	692

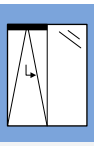
	FFB min. [mm]	FFB max. [mm]	Dim. C [mm]	Dim. A [mm]	Dim. B [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2000	520	127	692

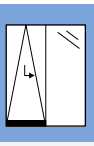
Slide-tilt element primePort SK 160 Z and primePort SK 220 Z GAK



	FFH min. [mm]	FFH max. [mm]	Dim. N [mm]	Dim. O [mm]	Dim. P [mm]	Dim. Q [mm]	Dim. R [mm]	Handle position [mm]
GAK.945-1	710	945	385	-	-	-	-	260
GAK.1100-1	946	1100	500	-	-	-	-	375
GAK.1195-1	946	1195	500	-	-	-	-	470
GAK.1195-2	946	1195	250	750	-	-	-	470
GAK.1325-1	1101	1325	750	-	-	-	-	550
GAK.1325-2	1196	1325	385	750	-	-	-	550
GAK.1550-1	1326	1550	750	-	-	-	-	550
GAK.1550-2	1326	1550	385	1000	-	-	-	550
GAK.1775-2	1551	1775	750	1250	-	-	-	550
GAK.1775-3	1551	1775	385	750	1250	-	-	550
GAK.2000-2	1776	2000	750	1250	-	-	-	1050
GAK.2000-4	1776	2000	385	750	1250	1500	-	1050
GAK.2225-2	2001	2225	750	1500	-	-	-	1050
GAK.2225-4	2001	2225	385	750	1250	1750	-	1050
GAK.2225-2 + MK.250-1	2226	2475	750	1500	-	-	230	1050
GAK.2225-4 + MK.250-1	2226	2475	385	750	1250	1750	230	1050
GAK.2225-2 + MK.500-1	2476	2700	750	1500	-	-	480	1050
GAK.2225-4 + MK.500-1	2476	2700	385	750	1250	1750	480	1050

	FFH min. [mm]	FFH max. [mm]	Dim. K [mm]	Dim. I [mm]	Dim. J [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2300	520	127	692
MK.250-1 + VSAM.2300 + MK.250-1	2301	2700	520	127	692

	FFB min. [mm]	FFB max. [mm]	Dim. L [mm]	Dim. M [mm]
MK.250-1	818	1068	230	-
MK.500-1	1069	1300	480	-
AS.PPSK.2000	1301	1548	-	820
AS.PPSK.2000 + MK.250-1	1549	1798	230	820
AS.PPSK.2000 + MK.500-1	1799	2000	480	820

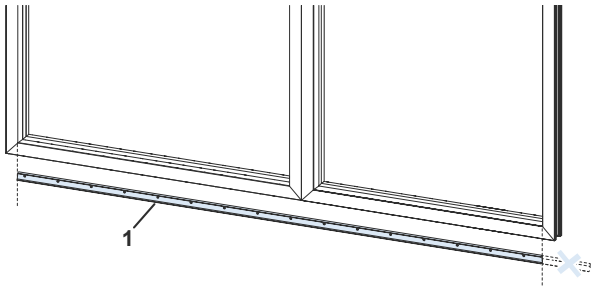
	FFB min. [mm]	FFB max. [mm]	Dim. C [mm]	Dim. A [mm]	Dim. B [mm]
VSAM.1050-1	800	1050	-	127	-
VSAM.1400-1	1051	1400	-	127	-
VSAM.1400-2	1051	1400	223	127	-
VSAM.1800-2	1401	1800	340	260	-
VSAM.2300-3	1801	2000	520	127	692

6.5.2 Installing the slide rail

Cutting to length of the slide rail

Length of the slide rail (1) =
internal frame width + (2x overlap dimension A)

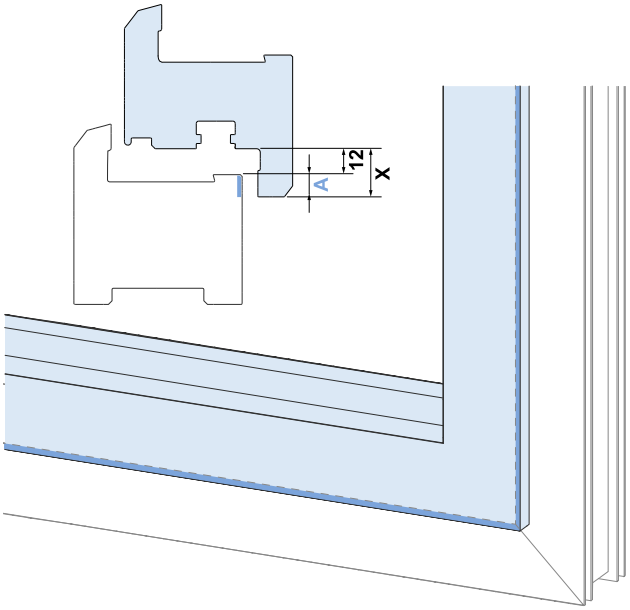
1. Determine the overlap dimension.
2. Mark length and cut to length the slide rail (1).



How to determine the overlap dimension

The overlap dimension is determined as follows:

Sash overlap **X** - airgap **12 mm** = overlap dimension **A**

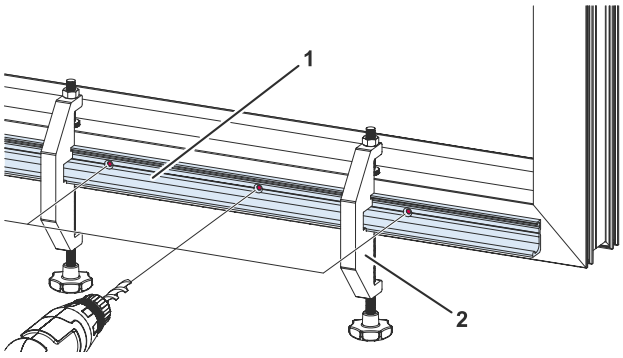


Holes for the slide rail

1. Position the slide rail (1) centred on frame.
2. Pre-set mounting jig (2), measurement specifications for 12 mm airgap.

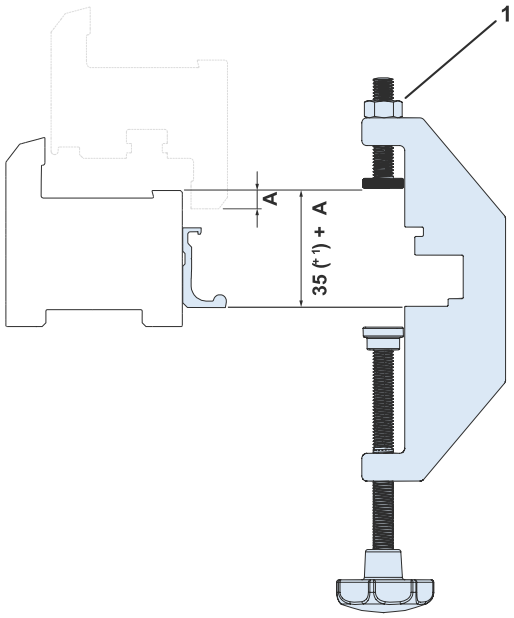
> To adjust the mounting jig, see “Adjusting the mounting jig” at the bottom.

3. Place 2 mounting jigs near the screw points.
4. Drill fastening hole in the centre with a 3 mm Ø drill bit.
5. Drill all other holes for fastening the slide rail in the same way.



Adjusting the mounting jig

1. Determine the overlap dimension **A**.
2. Unscrew nut (1) and adjust 35 (+1) + **A** mm.
3. Tighten the nut.



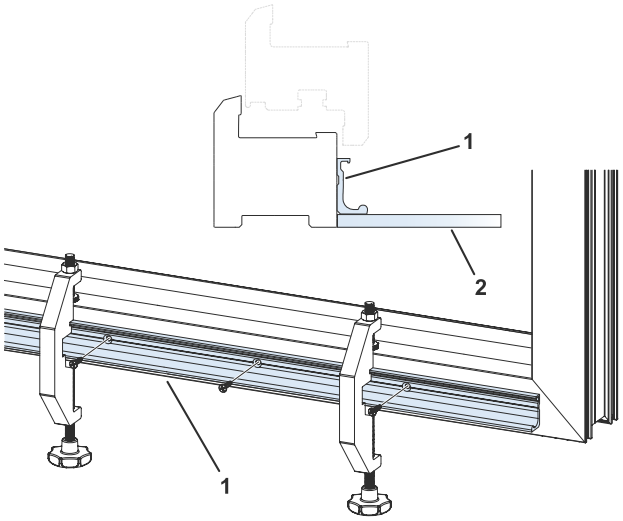
Installing the slide rail

1. Fix slide rail (1) with screw using the pre-drilled hole.
2. Attach all other screws in the same way to fasten the slide rail.

IMPORTANT

Load on the slide rail! To ensure that the weight of the sash does not bear on the slide rail alone, a pressure-resistant packer corresponding to the loads and geometric dimensions must be provided for further load transfer to the building structure (2).

The lower edge of the slide rail (1) corresponds to the maximum height of the finished floor (2).

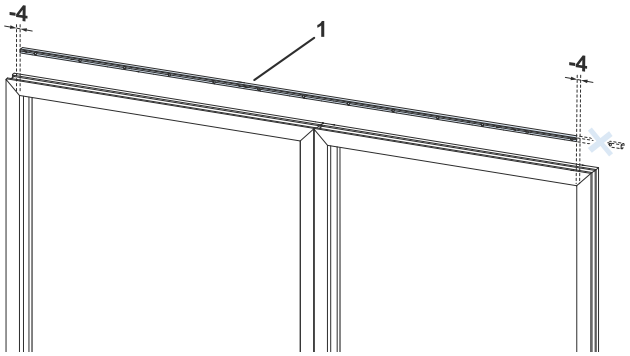


6.5.3 Installing the guide rail

Cutting to length of the guide rail

Length of guide rail (1) = length of slide rail minus 8 mm

1. Transfer the length of the slide rail and apply it to the guide rail.
2. Cut to length the guide rail (1).



Holes for the guide rail

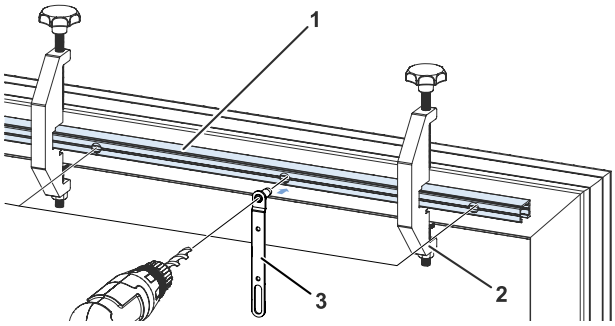
1. Position the guide rail (1) centred on frame.
2. Pre-set mounting jig (2), measurement specifications for 12 mm airgap.

To adjust the mounting jig, see “Adjusting the mounting jig” at the bottom.

3. Place 2 mounting jigs near the screw points.
4. Drill fastening hole in the centre with a 3 mm ø drill bit.

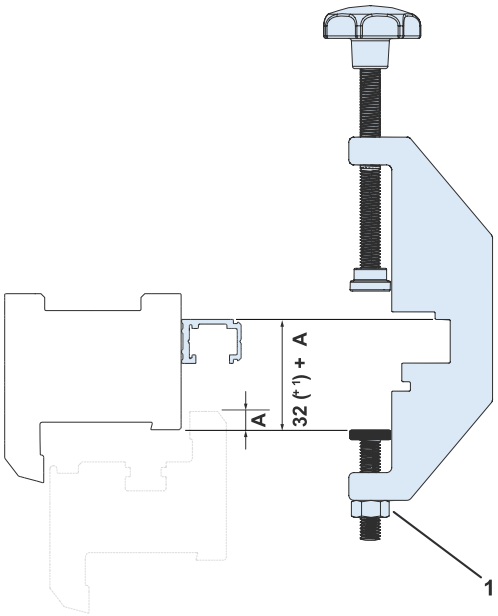
A drill centering (3) can be used to pre-drill the holes.

5. Drill all other holes in the same way for fastening the guide rail.



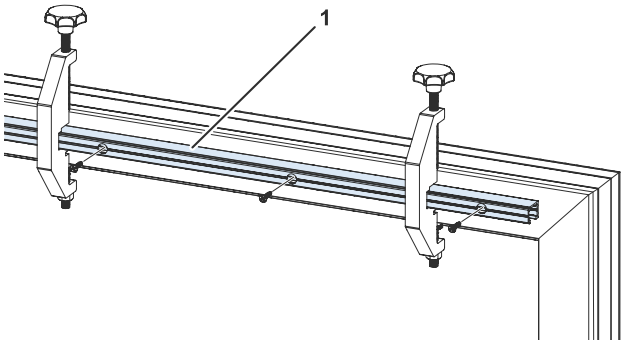
Adjusting the mounting jig

1. Determine the overlap dimension **A**.
2. Unscrew nut (1) and adjust 32 (+1) + **A** mm.
3. Tighten the nut.



Installing the guide rail

1. Screw guide rail (1) into predrilled holes with screws.

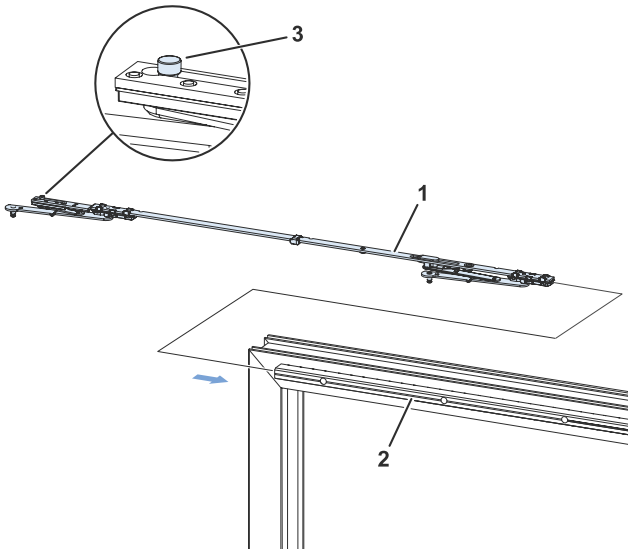


6.5.4 Insertion of the sliding shear

1. Insert folded-in sliding shear (1) into guide rail (2) from the side.

The bolt (3) must always be on the drive side.

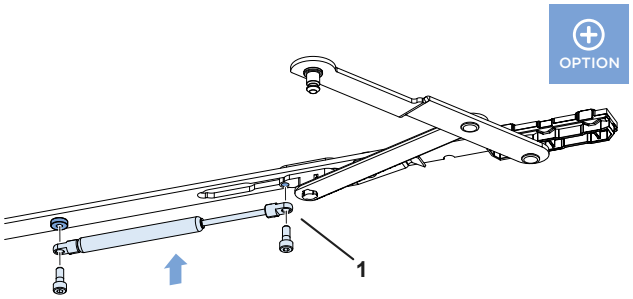
(The sliding shear can be inserted into the guide rail from either the left or the right.)



6.5.5 Mounting damper on sliding shear (optional)

Slide shears can be optionally equipped with a damper system for improved, smoother sash entry.

1. Screw the damper onto the sliding shear (1).



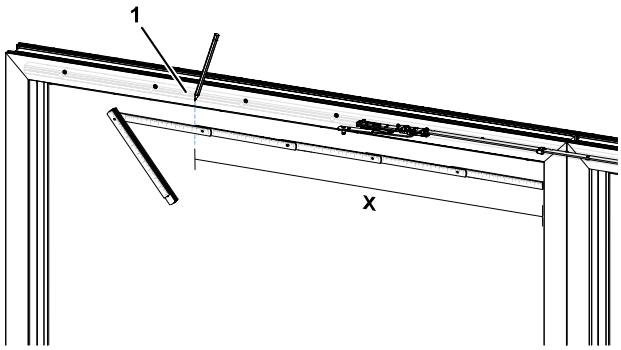
6.5.6 Installing the locking initiator

For better visibility of the components, the guide rail is only shown schematically.

The illustration opposite shows the version for a left-hand handle position (looking at the window from the inside). When fitting a window for right-hand use, the figures will be mirror-inverted.

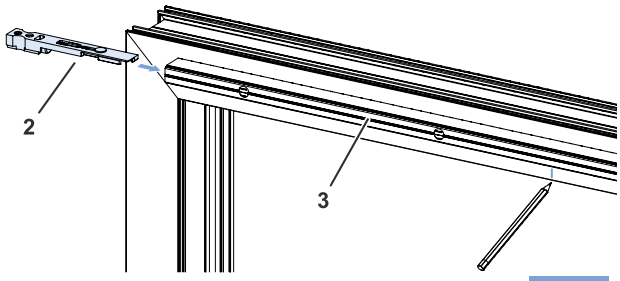
The locking initiator (2) must be positioned depending on the respective sliding shear length (4 different versions).

1. Mark the distance **X** (1).
   See dimensions table.

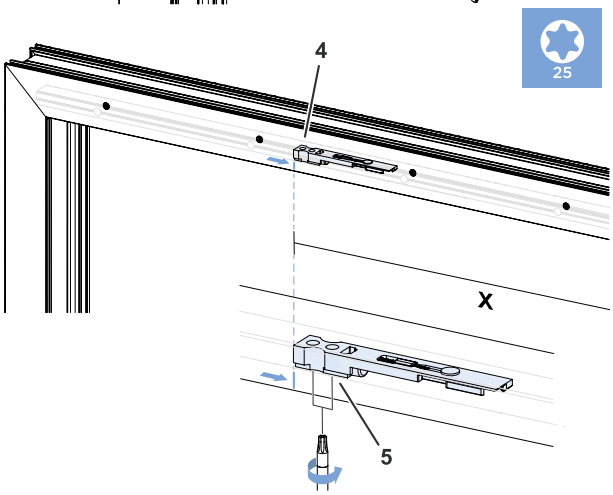


Sliding shear	Dimension X [mm]
GS.PPSK.950	589
GS.PPSK.1300	939
GS.PPSK.1650	1289
GS.PPSK.2000	1639

2. Push the locking initiator (2) into the guide rail (3) up to the marking (4).



3. Fix the locking initiator with both screws (5).

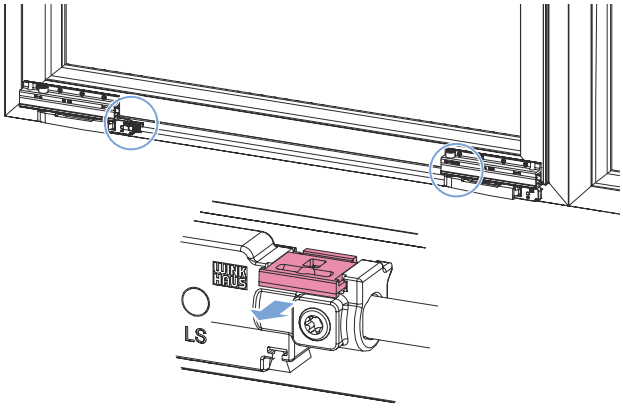


Information on fine adjustment of the sash entry "Readjustment of the sash entry", page 92

6.5.7 Fitting the sash

IMPORTANT

Retract the bogie securing devices! Material damages!
Before and during the “Fitting of the sash” procedure, it is essential to ensure that the bogie securing devices are open!

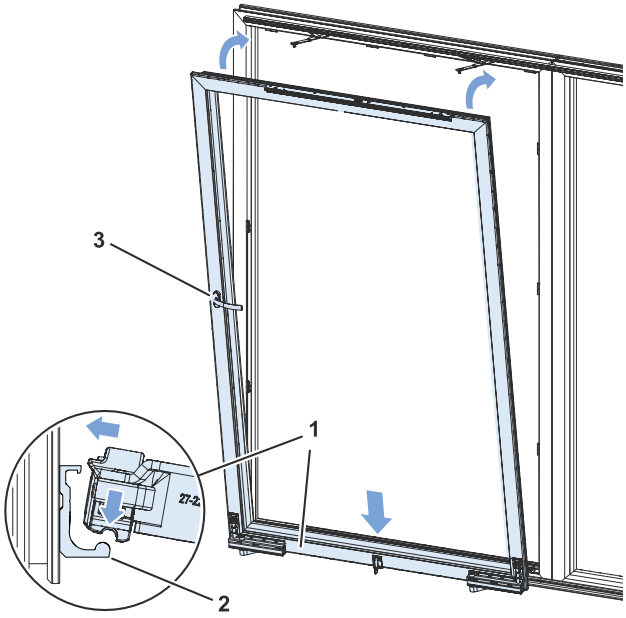


1. Place the sash (1) with the rollers on the slide rail (2) at an angle of approx. 10°.
2. Check the correct position of the rolls by moving the sash back and forth.
3. Place sash in vertical position.

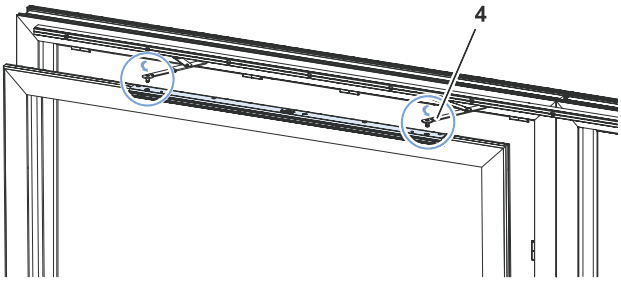
The handle (3) must be moved to the horizontal position (sliding position).

WARNING

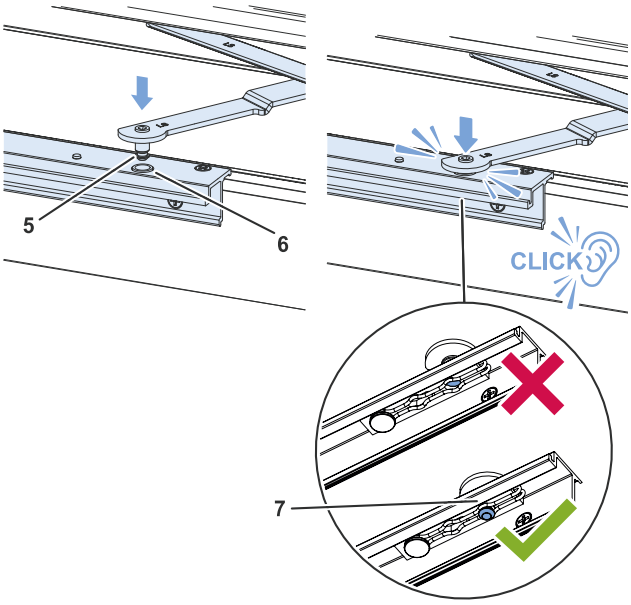
The sash is still in an unsecured state after being placed on the slide rail and can therefore roll to the right or left of the slide rail! The following assembly steps show the engagement of the bogie securing device and the fixing of the guide block and stoppers. These operations must be carried out after the sash has been placed on the slide rail!



4. Fold out inserted sliding shear (4).



5. Insert both pins (5) of the sliding shear into the suspension bushings provided on the support rail (6). A clear clicking sound can be heard in each case.
6. Make sure that the retaining spring underneath is seated in the groove of the pin (7).



DANGER

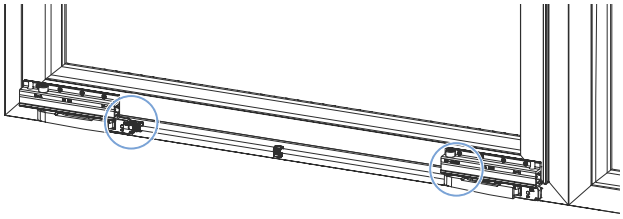
The sash can fall down and cause injury to persons if the two pins are not correctly engaged. Check they are firmly in position by pulling on the shear arms.

WARNING

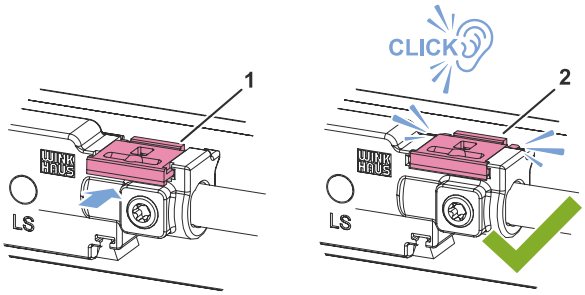
Heavy sash weight. As the sash may be heavy, there is a risk of back injury when lifting and a risk of an accident if the sash falls. Carry the sash with two people.

6.5.8 Actuation of the bogie securing device

1. The bogie securing device (1) must be activated before the sash is put into operation.



2. To do this, press in the bogie securing device until it engages in the end position (2).



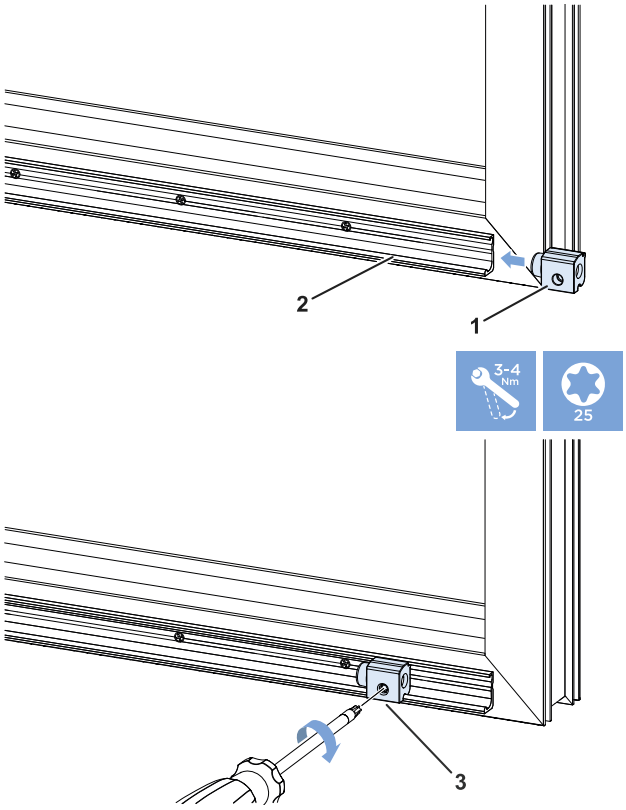
WARNING

If the bogie securing device is not engaged correctly or not at all in the position shown, the window sash is not sufficiently secured.

6.5.9 Installing the stoppers

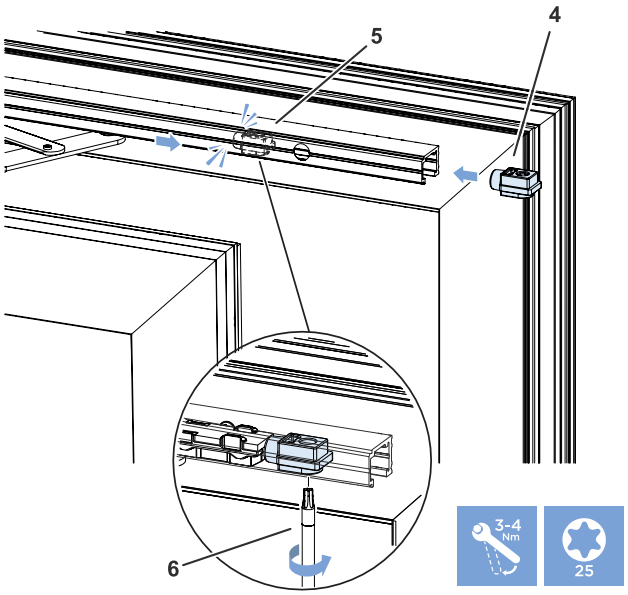
Bottom stopper

1. Insert the stopper (1) into the bottom of the sliding rail (2) and screw it tight depending on the desired sash opening width (3).



Top stopper

1. Open the sash and push it up to the end position against the bottom stopper (1).
2. Insert the top stopper (4) into the guide rail and slide it against the sliding shear (5).
3. Tighten the stopper (6).



IMPORTANT

If the sash does not run simultaneously against the lower and upper stoppers, this can lead to material damage! The end stops are designed to restrict opening and must not be used to stop the sliding sash abruptly.

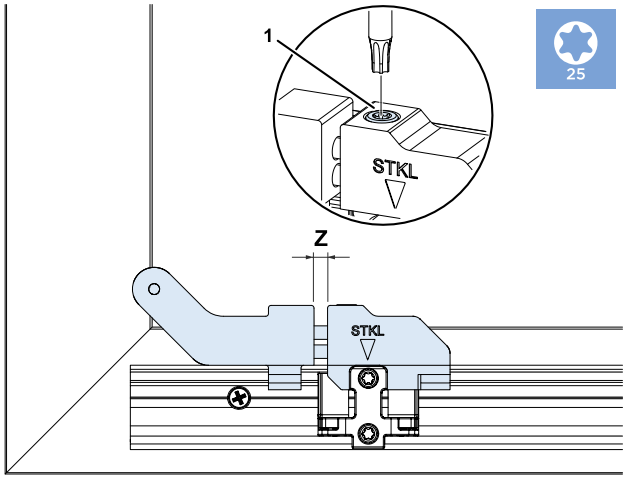
6.5.10 Installing the guide block

Adjusting the jig for mounting the guide block

The distance **Z** shall be determined as follows:

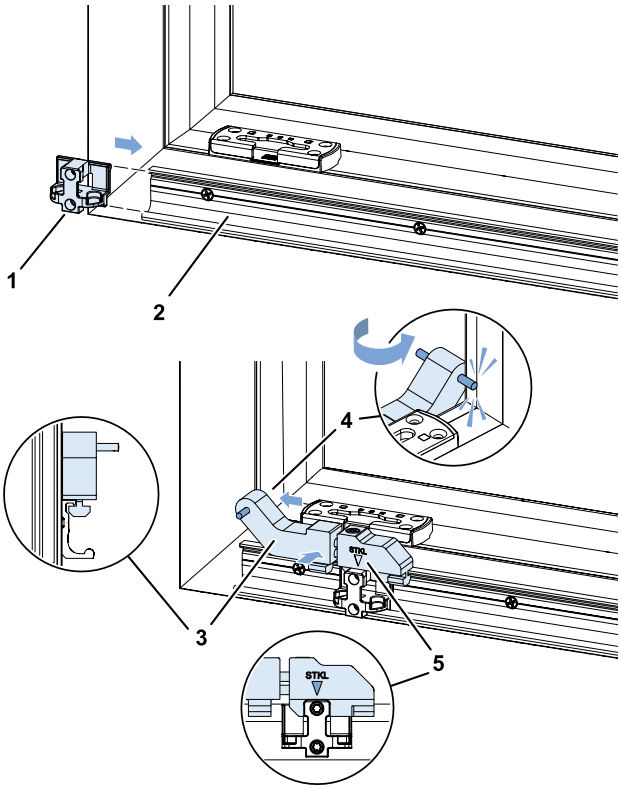
22 mm + rounding/slope **Y** - sash overlap **X** = **Z**

1. Loosen screw (1) and adjust **Z**.
2. Tighten the screw.

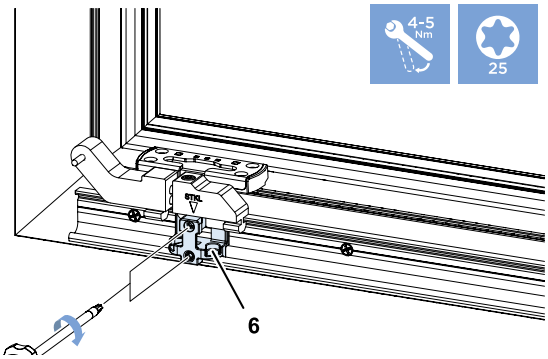


For determining the rounding/slope **Y** see "Preparing the drilling jig", page 59
For determining the sash overlap **X** see ."How to determine the overlap dimension", page 76

1. Insert the guide block (1) into the slide rail (2).
2. Insert the pre-set jig (3) into the slide rail and push it against the drive-side frame rebate edge (4) with the stopping pin.
3. Position the guide block so that the screws are located centrally under the arrow marking **STKL** of the jig (5).



4. Tighten upper grub screw in guide block only hand-tight (6).
5. To check the guide block position, the sliding sash must be moved to the tilt position (airgap on both sash sides 12 mm).
6. Readjust the guide block if necessary.
7. Tighten the grub screws in the guide block.



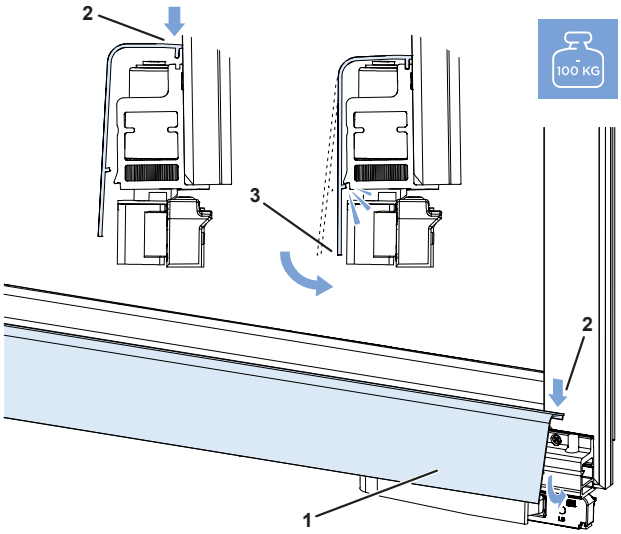
If adjustments have to be made to the fitting parts deviating from the factory settings, these should be carried out before attaching the covering profiles to the bogies, support and guide rails!

For information on adjustment, see "Adjustment", page 90

6.5.11 Installing the covering profile of the bogies

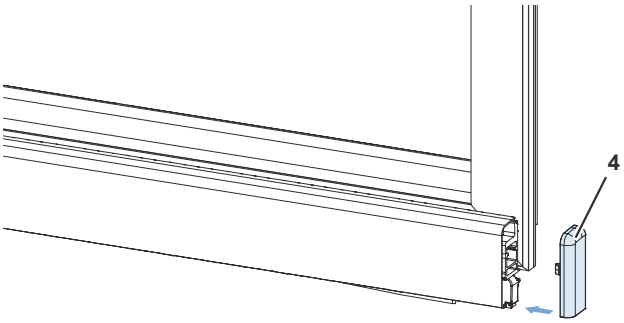
Installing the covering profile for bogies without reinforcement parts

1. First insert the cut-to-length covering profile (1) from above into the groove of the bogies (2).
2. Then clip in at bottom with slight pressure (3).



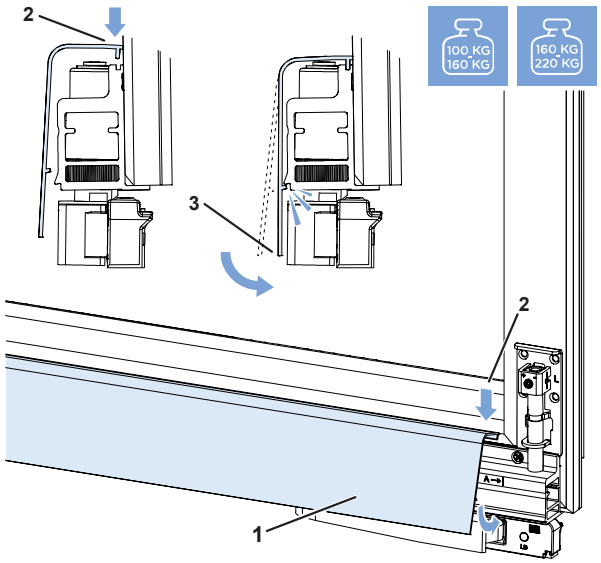
3. Insert the cover caps (4) on the right and left into the bogies.

If the covering profiles are not installed at the factory, the bogies must be secured against dirt for transport.

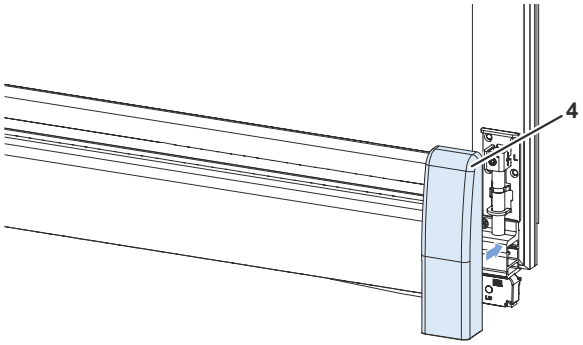


Fitting the covering profile for bogies with reinforcement parts

1. First insert the cut-to-length covering profile (1) from above into the groove of the bogies (2).
2. Then clip in at bottom with slight pressure (3).



3. Place cover caps (4) on the right and left of the bogies and reinforcement parts.



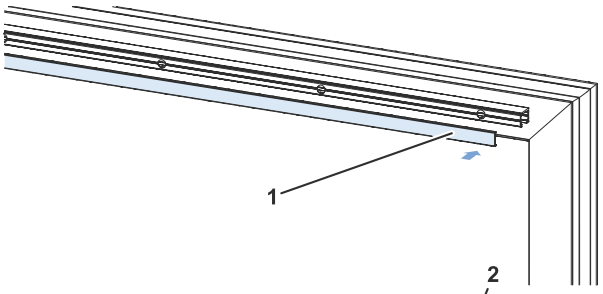
In the case of tandem bogies, the assembly steps for attaching the covering profile must be carried out in the same way.

If the covering profiles are not installed at the factory, the bogies must be secured against dirt for transport.

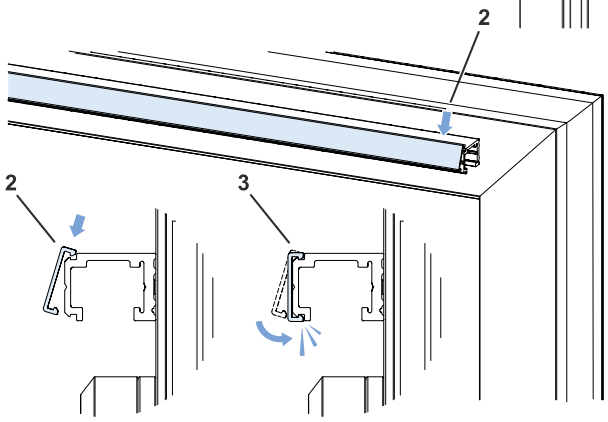
6.5.12 Installing the covering profile and the cover caps of the guide rail

1. First insert the covering profile (1), which has already been cut flush with the guide rail, from above into the groove of the guide rail (2).

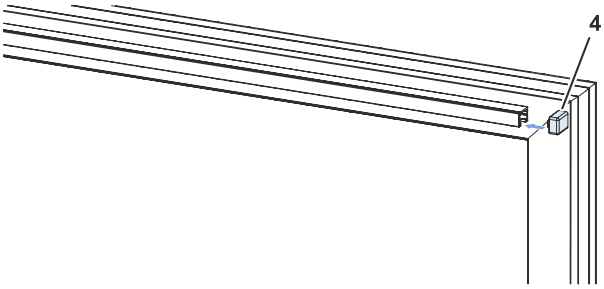
   Length of the covering profile = length of the guide rail
   See "Cutting to length of the guide rail", page 78



2. Then clip in at bottom with slight pressure (3).



3. Insert cover caps (4) on right and left onto the guide rail.

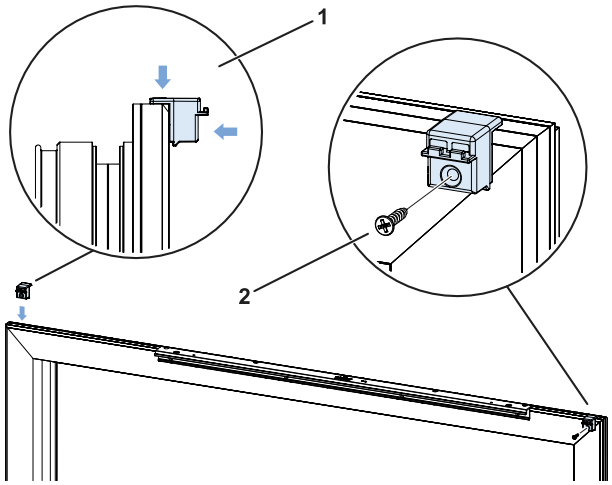


6.5.13 Installing the covering profile and cover caps of the support rail

Mounting the retaining clips

To ensure that the covering profile is firmly seated, at least one retaining clip is placed respectively on the left and right of the support rail.

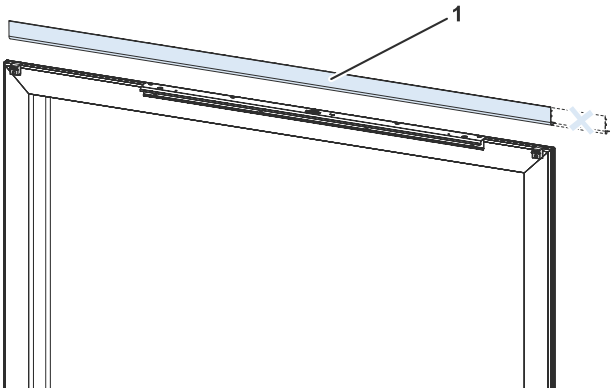
1. Place both retaining clips on the sash overlap (1).
2. Screw the retaining clips to the sash frame (2).



Cutting to length the covering profile of the support rail

Length of covering profile (1) =
sash width - (2x sash slope/rounding Y) - 4 mm

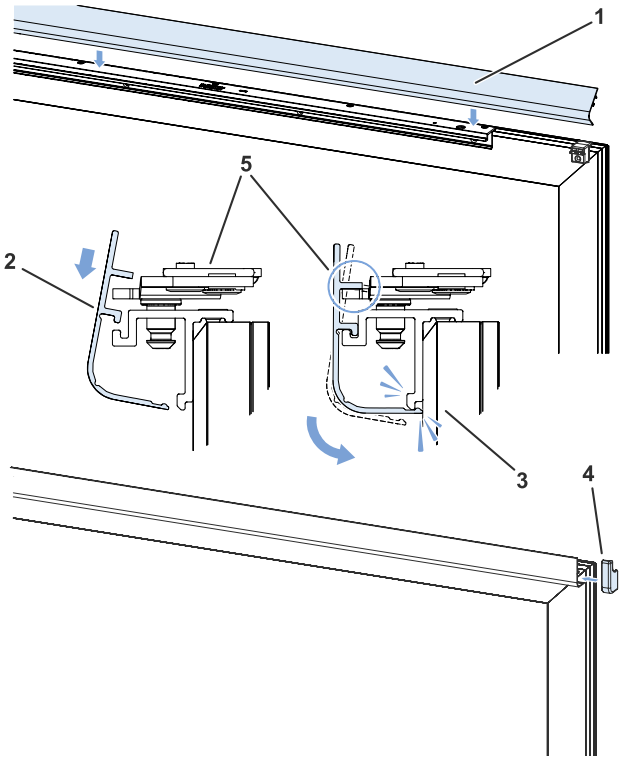
1. Mark length and cut to length covering profile (1).



> To determine the slope/rounding **Y** of the sash see "Preparing the drilling jig", page 59

Installing the covering profile and cover caps of the support rail

1. First insert the covering profile (1) from above into the groove of the support rail (2).



2. Then clip in at bottom with slight pressure (3).

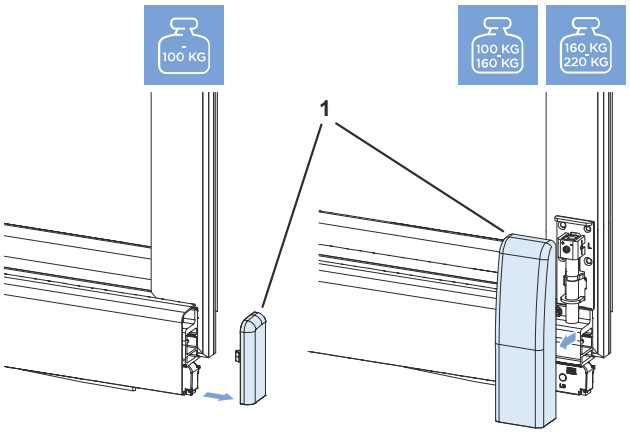
3. Insert cover caps (4) on right and left onto covering profile of the support rail.

> The clipped-on covering profile additionally secures the sliding shear (5) in its fixed position.

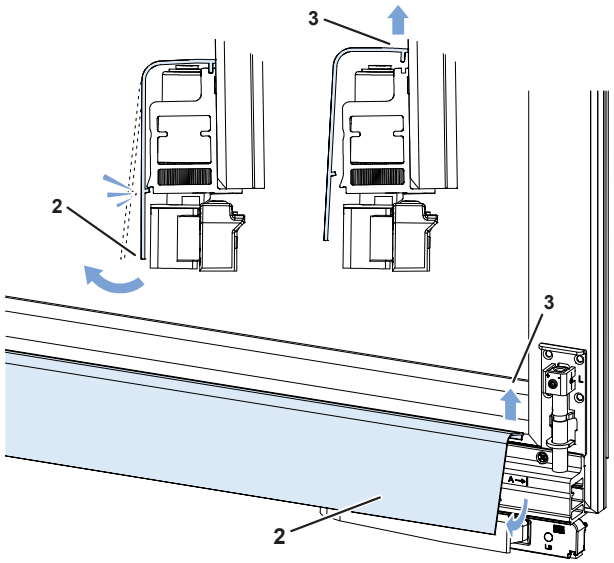
6.6 Adjustment

6.6.1 Removing the covering profile of the bogies

1. Pull the cover caps (1) on the right and left out of the bogies or from the reinforcement parts.



2. First unclip covering profile (2) from bottom by pulling slightly.
3. Then lift out the covering profile upwards (3).



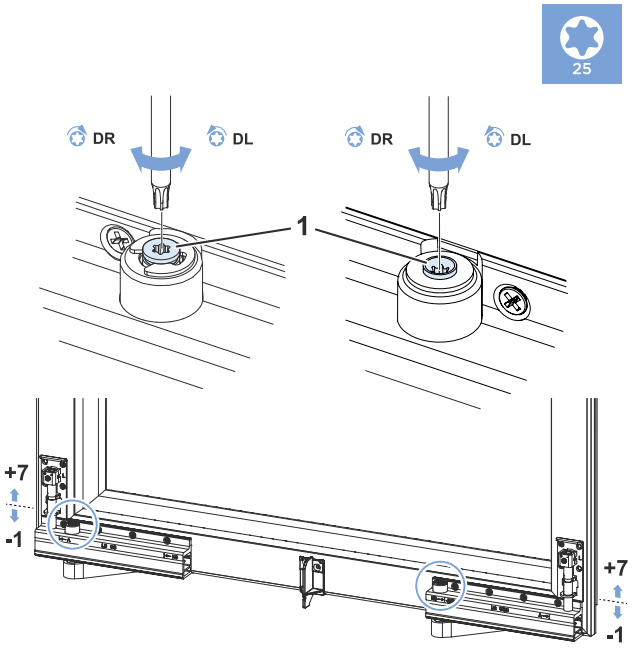
6.6.2 Adjust bogies in horizontal position

The bogies are height-adjustable. The sash can then be adjusted horizontally or vertically after it has been mounted.

1. Check the airgap on both sides of the sash.
2. Use the adjustment screw (1) to raise or to lower the bogie(s) until the sash is in its correct position.

- **Turn direction DR:** Raising of the sash
- **Turn direction DL:** Lowering of the sash

From the basic setting, both adjustment screws of the bogies can be adjusted both in the **turn direction DR** (clockwise) and in the **turn direction DL** (anti-clockwise).

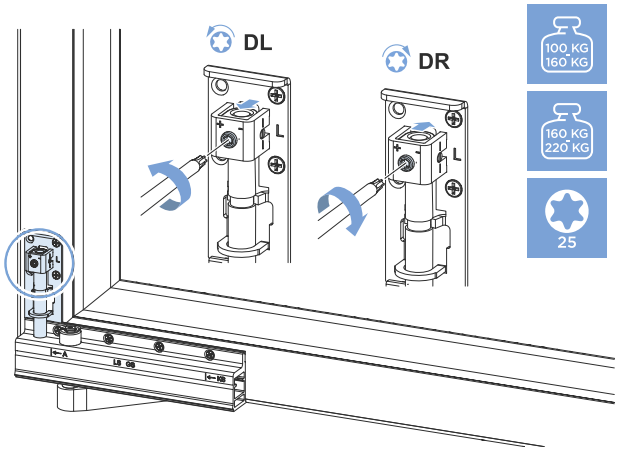


6.6.3 Adjustment of reinforcement parts

The reinforcement parts feature an adjustable design to optimise sash entry into the frame.

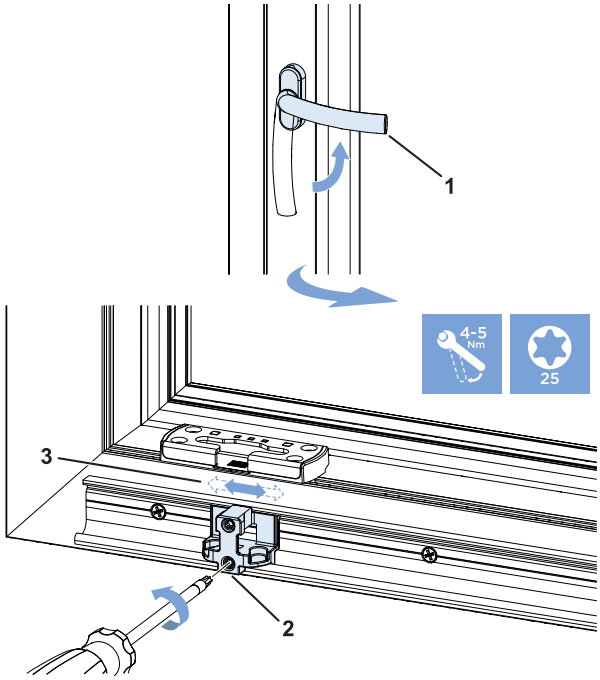
- **Turn direction DR:** makes sliding in easier
- **Turn direction DL:** makes sliding out easier

From the basic setting, both reinforcement parts can be adjusted both in the **turn direction DR** (clockwise) and in the **turn direction DL** (anti-clockwise). However, to ensure smooth running, both reinforcement parts should only be adjusted simultaneously and in one direction.

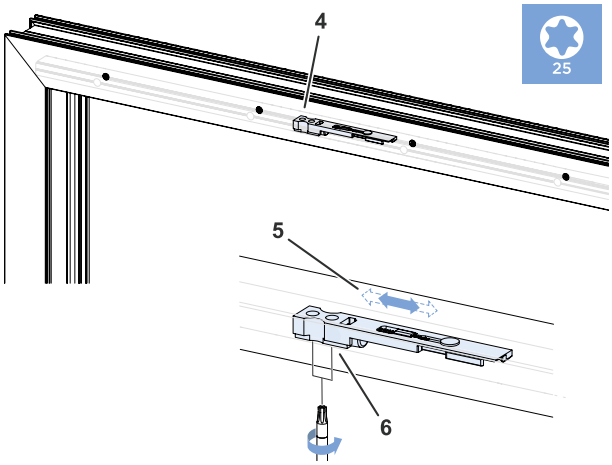


6.6.4 Readjustment of the sash entry

1. Move the handle to the sliding position and open the sash (1).
2. Loosen grub screws in guide block (2).
3. Reposition the guide block position as required (3). (To check, the sliding sash must be moved to the tilt position. Airgap on both sash sides 12 mm).
4. Tighten the grub screws in the guide block.

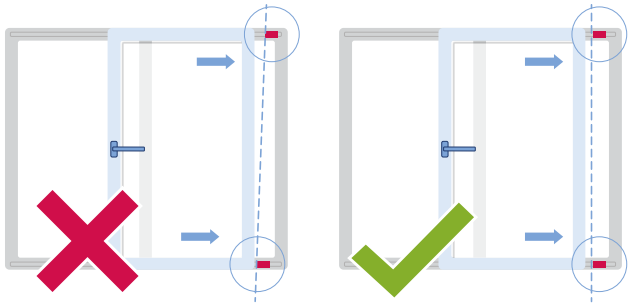


1. Loosen the grub screws in the locking initiator (4).
2. Reposition the locking initiator position as required (5). (To check this, the sliding sash must be moved to the tilt position. Airgap on both sash sides 12 mm).
3. Fix the locking initiator with both grub screws (6).



6.6.5 Readjusting the stoppers at the bottom and top

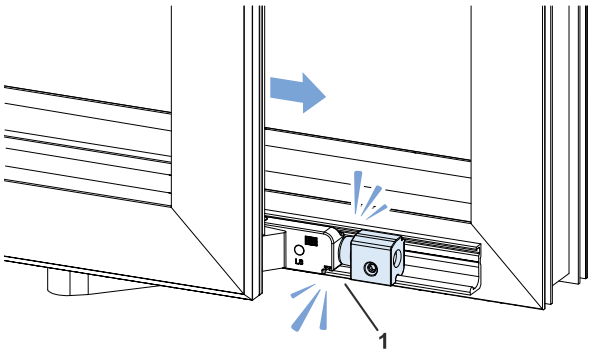
If the sash does not run simultaneously against the lower and upper stoppers, this can lead to material damage! The end stops are designed to restrict opening and must not be used to stop the sliding sash abruptly.



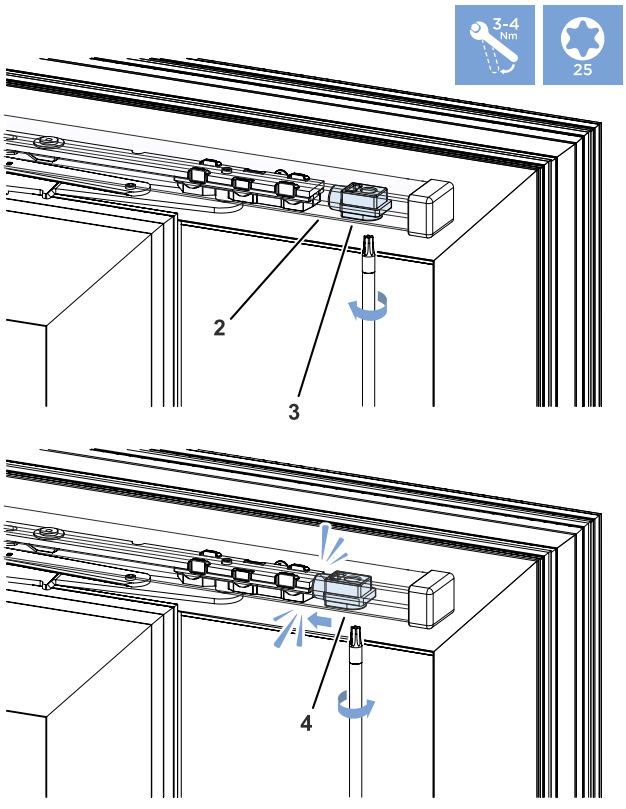
If the factory-set opening width of the sliding sash is to be changed, the stoppers at the bottom and top must be moved parallel.

If the stoppers are not set synchronously at the factory, readjustment is also required here:

1. Open the sash and push it up to the end position against the bottom stopper (1).



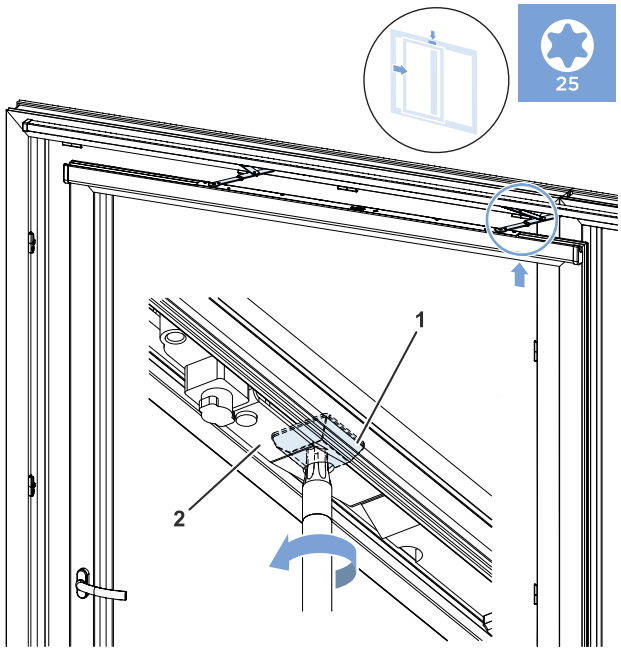
2. Loosen the top stopper (3).
3. Slide the stopper against the sliding shear and screw it tight again (4).



6.6.6 Adjusting the cam in the slide shear

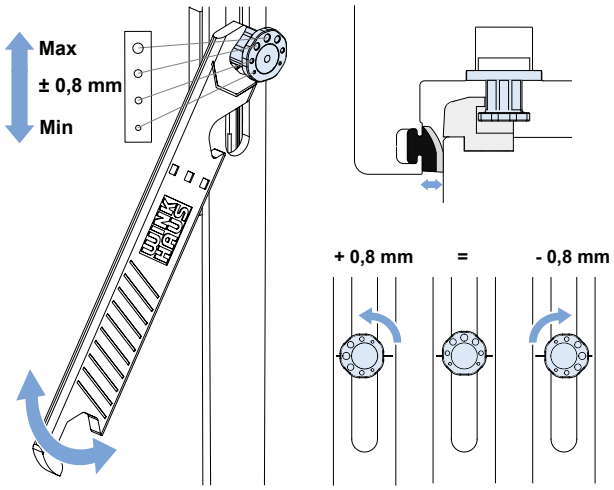
If the tilt detent is too strong, the cam (1) can be adjusted in the installed condition.
It can be adjusted from below through the round opening of the tilt protection spring (2).

1. Move the handle to the sliding position and open the sash.
2. Turn the cam (1) counterclockwise by 90° up to the end stop.



6.6.7 Octagonal bolt regulation of contact pressure

1. Adjustment between the sash and frame (0.8 mm) is possible by turning the octagonal bolt.
2. The adjustment can be carried out by means of the Winkhaus adjustment key (V.ST.SCH.HV-11).



6.7 Starting operation

Commissioning, use and maintenance

In order to be able to use the fitting parts on the sliding element safely and without errors, the following questions or notes must be observed:

After final assembly (target group: window manufacturers)

Check the tightness of the screw connections.	☐
Are both pins of the sliding shear correctly inserted into the designated suspension bushings of the support rail and is the retaining spring sure to engage in the pin groove? "Fitting the sash", page 81	☐
Have the bogie securing devices on the bogies been activated? "Actuation of the bogie securing device", page 83	☐
Does the sliding sash run against the stoppers at the top and bottom simultaneously? "Installing the stoppers", page 83	☐
Keep the slide rails clean at all times to ensure optimum smooth running of the sliding sashes. It is not necessary to remove sliding sashes!	☐

After final assembly on the construction site (target group: assembly companies)

Checking the tightness of the screw connections.	☐
Are both pins of the sliding shear correctly inserted into the designated suspension bushings of the support rail and is the retaining spring sure to engage in the pin groove? "Fitting the sash", page 81	☐
Have the bogie securing devices on the bogies been activated? "Actuation of the bogie securing device", page 83	☐
Does the sliding sash run against the stoppers at the top and bottom simultaneously? "Installing the stoppers", page 83	☐
Have all protective films been removed from the fitting parts? (If this is to take place later, respective agreements must be made.)	☐
Keep the slide rails clean at all times to ensure optimum smooth running of the sliding sashes. It is not necessary to remove sliding sashes!	☐
Take measures to protect the fittings during the construction phase.	☐

After the construction phase (target group: end users)

In principle: Observance of the information in the Winkhaus operating and maintenance instructions for end users.	☐
Only clean the fittings with a soft cloth and mild, pH-neutral cleaning agents in diluted form. Never use aggressive, acidic cleaning agents or abrasives. These can cause damage to the fittings. To ensure trouble-free use, all moving fitting parts must be kept clean.	☐
Keep the slide rails clean at all times to ensure optimum smooth running of the sliding sashes. It is not necessary to remove sliding sashes!	☐
Fittings, windows and patio doors require expert, systematic maintenance/care and inspection to ensure their value retention, usability and safety. It is therefore recommended to conclude a maintenance contract with a specialist company in windows and patio doors.	☐

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6.8 Handover to the end user/builder

Target group-specific documentation and handover

Target group and their responsibilities

Information on the target group and their responsibilities is presented in this manual in Chapter 1.1.

Documentation and handover

The corresponding documents must be submitted in accordance with the specifications from the above-mentioned subchapter “Information on the target group and their responsibilities”.

Unless the builder has precisely specified the components of the documentation, the minimum information of the documentation must include everything that the builder or user needs for proper operation and maintenance.

User information/operating instructions

Information stickers regarding operation can be ordered separately. It is to be positioned on the window glass within easy reach of the end user. Further information on ordering is available from your Winkhaus contact person.

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7 Operation

Handle positions

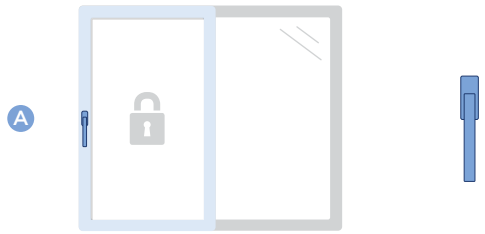
primePort SK

IMPORTANT

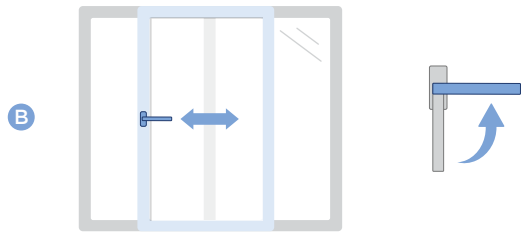
Determination of the opening direction for sliding elements in accordance with DIN EN 12519

The opening direction is determined from the inside.
When looking at a closed, *"right opening"* sash, it is a "left sash".

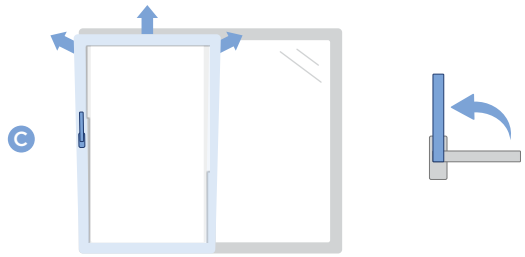
Handle position A: Locking position



Handle position B: Sliding position



Handle position C: Tilt position



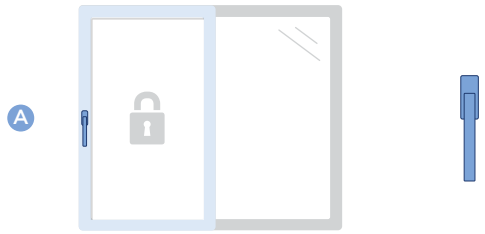
primePort PAS

IMPORTANT

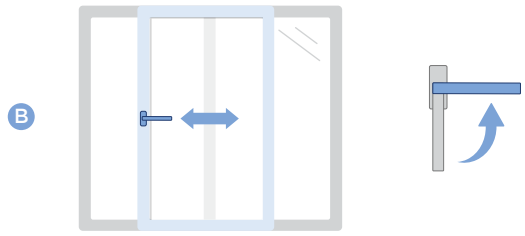
Determination of the opening direction for sliding elements in accordance with DIN EN 12519

The opening direction is determined from the inside.
When looking at a closed, *"right opening"* sash, it is a "left sash".

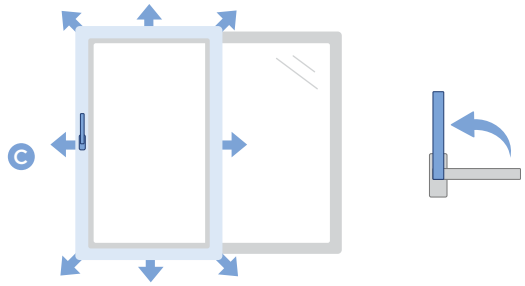
Handle position A: Locking position



Handle position B: Sliding position



Handle position C: Parallel action position



8 Cleaning and maintenance

Cleaning

Only clean the fittings with a soft cloth and mild, pH-neutral cleaning agents in diluted form. Never use aggressive, acidic cleaning agents or abrasives. These can cause damage to the fittings.

To ensure trouble-free use, all moving fitting parts or, if present, guide and sliding rails must be kept clean.

Maintenance

Fittings, windows and patio doors require expert, systematic maintenance/care and inspection to ensure their value retention, usability and safety. It is therefore recommended to conclude a maintenance contract with the specialist company in windows and patio doors.

The following minimum requirements must be observed in general and must be fulfilled for maintenance contracts:

- Grease all moving parts and all locking points of the fittings in accordance with the adjustment and maintenance instructions and check for proper function.
- Check fitting parts for secure fit and signs of wear.
- If necessary, have the fastening screws tightened by a specialist company, have adjustment work carried out on the fittings and locks and have worn components replaced.

Application of fittings	Service intervals
Schools, hotels, hospitals	every six months
Office or public building	every six months
General residential construction	annually

The following fitting diagram with marking of the relevant lubrication points does not necessarily correspond to the installed fitting system. The number of locking points will vary depending on size and type of the window sash.

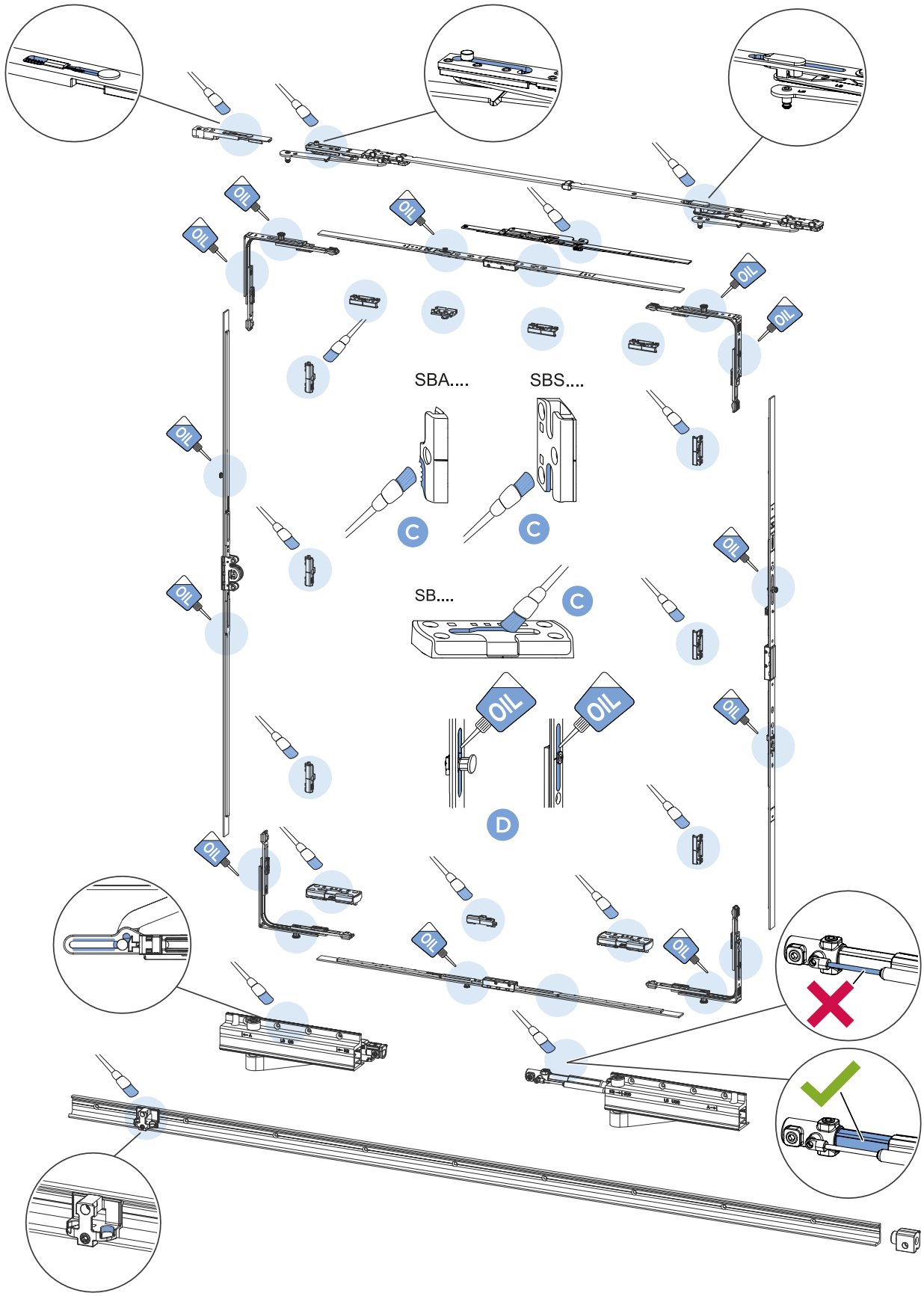
CAUTION

Risk of Injury! The window could fall on removal and thus injure persons. Do not remove the window for maintenance.

CAUTION

Adjustment work may only be carried out by a specialist company.
Adjustment work on the fittings – especially in the area of load-bearing fitting parts – as well as the replacement of parts and mounting and removal of the opening sashes must be carried out by a specialist company.

Lubrication points on the sliding hardware

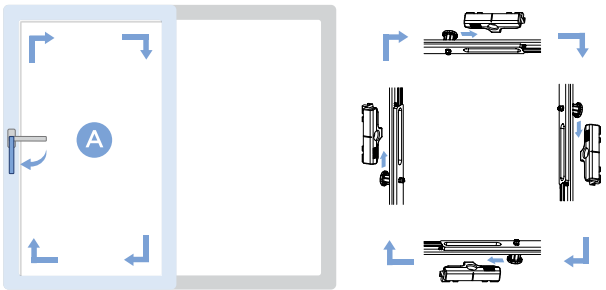


Lubricate the locking keeps (C) at the run-in sides with technical Vaseline or another suitable grease.
Lubricate the sliding surfaces (D) with a resin- and acid-free oil.

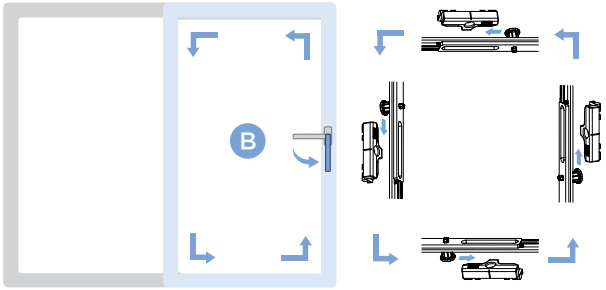
Ascertaining the run-in sides

By turning the handle to the locked position, the locking bolts of the activPilot fitting system move into the frame parts.

- Sliding sash with left handle position (opening to the right) - locked position by turning the handle clockwise (see A)



- Sliding sash with right handle position (opening to the left) - locked position by turning the handle anti-clockwise (see B)



9 Spare parts and accessories

Retrofitting, maintenance, repair, spare parts or other questions

On the Winkhaus homepage, specialist companies are listed. They are also competent contacts when it comes to e.g. retrofitting, maintenance, repair, spare parts or other questions. If questions arise regarding these topics, please also refer to the following address:

Find a partner near you
https://www.winkhaus.com/de/service/haendlersuche



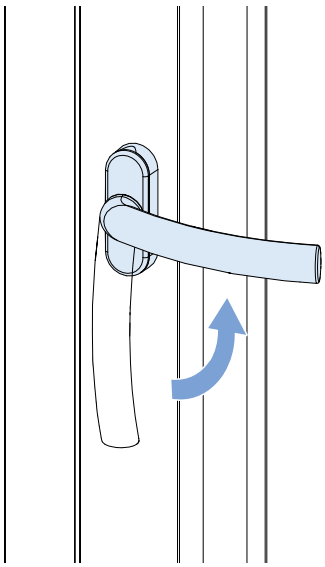
10 Dismounting

Removal of the sash

IMPORTANT

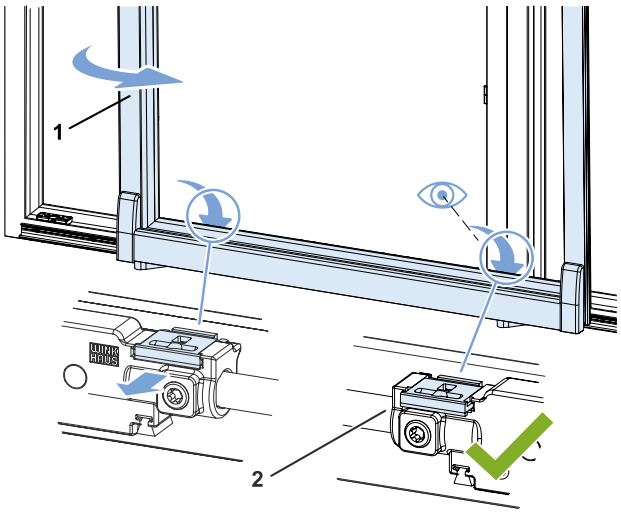
The window may only be removed by trained personnel from a window manufacturer.

1. Move the handle to the sliding position.



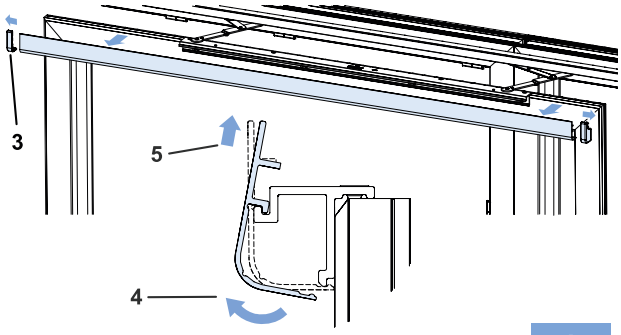
Assembly work at the bottom

1. Slide open the sash (1).
2. Put all bogie securing devices in the unlocked position (2).

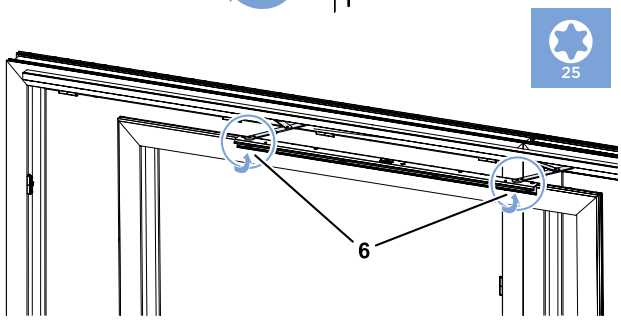


Assembly work at the top

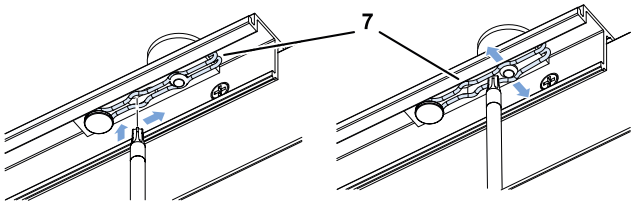
3. Remove cover caps of the support rail on left and right (3).
4. First unclip covering profile of support rail at bottom (4) and then detach upwards from support rail (5).



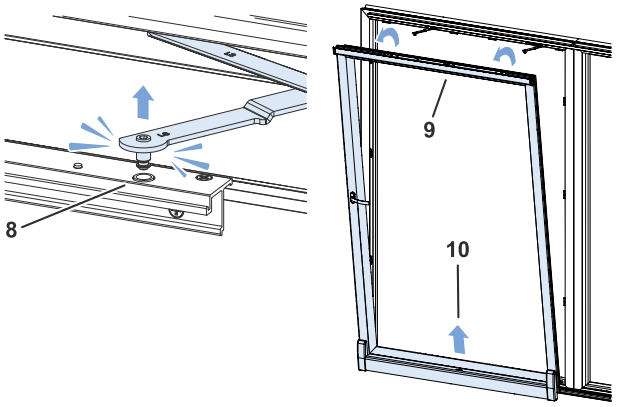
5. The retaining springs that fix the pins of the sliding shear arms are located under the support rail (6).



6. Insert a hexagon socket or slotted screwdriver into the curvatures of the retaining springs and spread them with a movement towards the pin (7).



7. The pins can be released upwards from the support rail (8).
8. Tilt the loosened sash (9) and lift it off the slide rail (10).



WARNING

Heavy sash weight. As the sash may be heavy, there is a risk of back injury when lifting and a risk of an accident if the sash falls. Carry the sash with two people.

11 Proper disposal

Environment

Proper disposal of fittings
When disposing of fittings, they must be recycled in an environmentally friendly manner as mixed scrap.

Environment

Disposal of packaging material
The packaging must be recycled separately in accordance with the separation regulations for packaging.

Manufactured and distributed by:
Aug. Winkhaus SE
August-Winkhaus-Straße 31
48291 Telgte
Germany

Contact:
T +49 2504 921-0
fenstertechnik@winkhaus.de

For UK imported by:
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