

PORTAL

PORTAL HS burglar resistance

for timber elements
with locking bolt gear

Window systems

Door systems

Comfort systems



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1 General information

1.1 Target group of this documentation

This documentation is intended for use by specialists only. All work described in this document is to be performed by experienced professionals with training and practice in the assembly, installation and maintenance of PORTAL hardware. Safe and proper assembly of PORTAL hardware is not possible without expert knowledge. Keep these assembly instructions in a safe place.

1.2 Intended use

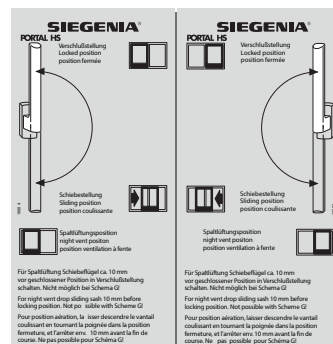
- PORTAL HS hardware for use in windows or patio doors.
- Sash weight max. 400 kg.
- The lift-slide HS PORTAL hardware is intended for use in fixed buildings.
- The PORTAL HS lift-slide-hardware allows the horizontal opening and closing of doors and patio doors from profiles for lift and slide elements.
- The lift and slide elements must be installed vertically, in no circumstances in a sloping position.
- HS PORTAL elements may not be installed without providing appropriate drainage and weather protection.
- Seal the threshold components and seal between the threshold and masonry or facade observing the applicable rules in the trade (Fachhandwerk) as set down in DIN 18195 section 5 paragraph 8. 1. 5.

1.3 Safety notes

- Maintenance must be carried out on the HS PORTAL hardware at least once a year. The maintenance instructions must be observed.
- The hardware components described in these assembly instructions are manufactured from steel, zinc plated and then treated with a special process.
- The hardware components may not be used in the following cases. Please contact your SIEGENIA sales consultant in such situations.
 - In damp locations
 - In environments where the air contains aggressive, corrosive components
 - in environments where the air contains salt.
- solely SIEGENIA hardware components.

Otherwise damage could occur, for which we accept no liability.

- All hardware components must be mounted properly. Do not overtighten the screws!
- The lift and slide elements may only be surface treated before the hardware components are assembled. Treating these surfaces at a later stage can reduce the functional capacity of the hardware components. In such cases we are not obliged to honour any warranty.
- When block setting, please observe technical guideline no. 3 from the German Glazing Trade [Glaserhandwerk], "Blocking glazing units" [Klotzung von Verglasungseinheiten].
- Never use acid curing sealants as they may cause the hardware components to corrode.
- Keep the running rail and all rebates free from dirt and debris, especially from deposits of cement and plaster. Avoid exposing the hardware directly to water and do not let cleaning agents come into contact with the hardware.
- Attach the operating sticker (slide direction DIN left or DIN right) in a visible position on the installed Lift & Slide sash. You can find the operating sticker in the HS 300 basic carton.



1.4 Extreme weather conditions

The PORTAL HS hardware must receive special protection in the case of extreme prevalent weather conditions e.g. gales or storms in the direct vicinity of the coast. PORTAL HS hardware must be sealed against the permeation of foreign bodies. Foreign bodies e.g. sand and building dust lead to an abrasive impact on the hardware surface and to further damage to the hardware components. The permeation of foreign bodies must be prevented by the application of suitable seals in the profile system or geometric profile design. Especially in the case of externally running



sashes, it is essential to ensure that the external hardware components must be protected against gales and storms.

Maintenance must be carried out twice a year if the hardware components are exposed to extreme weather.

- The hardware should be freed of foreign bodies by blow out or suction methods. Treat the bogie wheels and corner drive on the locking side in the same way.
- Apply a non-acidic and non-resinous care agent to the surface of the hardware component.
For example:
„KORROSIONSSCHUTZSPRAY - 300 ML“ from Würth,
„ANTI-CORIT 5F SPRAY“ from Fuchs-Schmierstoffe.
- Lubricate the drive rod of the gear via the holes in the gear sleeve.

1.5 Directives of the Trade Organisation for Locks and Fittings (Gütegemeinschaft Schlösser und Beschläge e. V.)

The directives of the Trade Organisation for Locks and Fittings provide comprehensive information on the correct operation and maintenance of hardware for windows and French doors.
It is mandatory to adhere to these directives.

You can find the latest versions of the directives, in a range of languages here:
<http://www.beschlagindustrie.de/ggsb/richtlinien.asp>



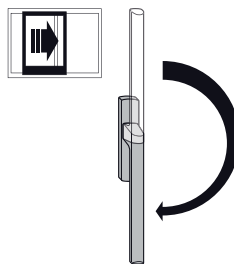
VHBH – Hardware for windows and patio doors
Guidelines/notes on the product and on liability

VHBE – Hardware for windows and patio doors

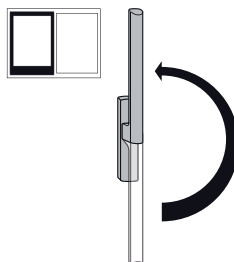
Guidelines and notes for end users

1.6 Handle operation

Lift and slide the sliding sash.



Lower the sliding sash. Locking position.



1.7 Dimensions

All dimensions are nominal values and include the general tolerances (formerly "dimensional variations").
All nominal values are given in mm.



2 Processing specifications

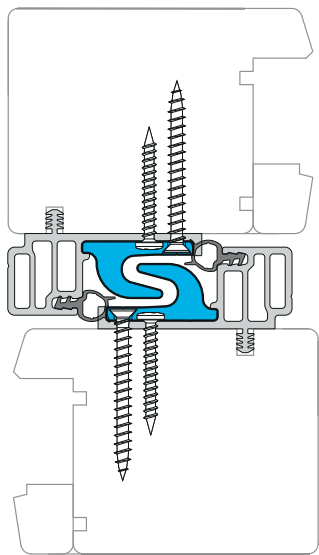
2.1 Attainable security levels

Scheme A Scheme C	Security level			
	Basic security	RC 1N	RC 2N	RC 2
Meets the requirements	—	DIN EN 1627ff	DIN EN 1627ff	DIN EN 1627ff
Standard hardware components	•	•	•	•
Top locking bolt E	—	2	2	2
Security interlock or RC2 plate	—	1*	1*	1*
Anti-drill guard	—	1	1	1
Carton handle Si-line HS 300 PZ	—	1	1	1
Prescribed glazing	according to selection	in accordance with EN 356 no requirement	in accordance with EN 356 no requirement	in accordance with EN 356 P4A

* Minimum quantity per sliding sash.

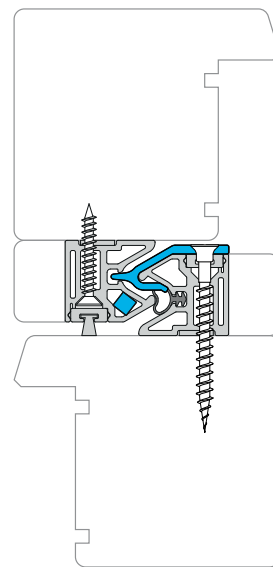
2.2 Versions

Sealing rail C



- Security interlock can only be used with sealing rail C HS.
- Handle Si-line PZ with profile cylinder lockable from the inside is necessary.
- Position drilling for the locking bolt:
 - for soft timber Ø9mm
 - for hard timber Ø11mm

Sealing rail C28/48

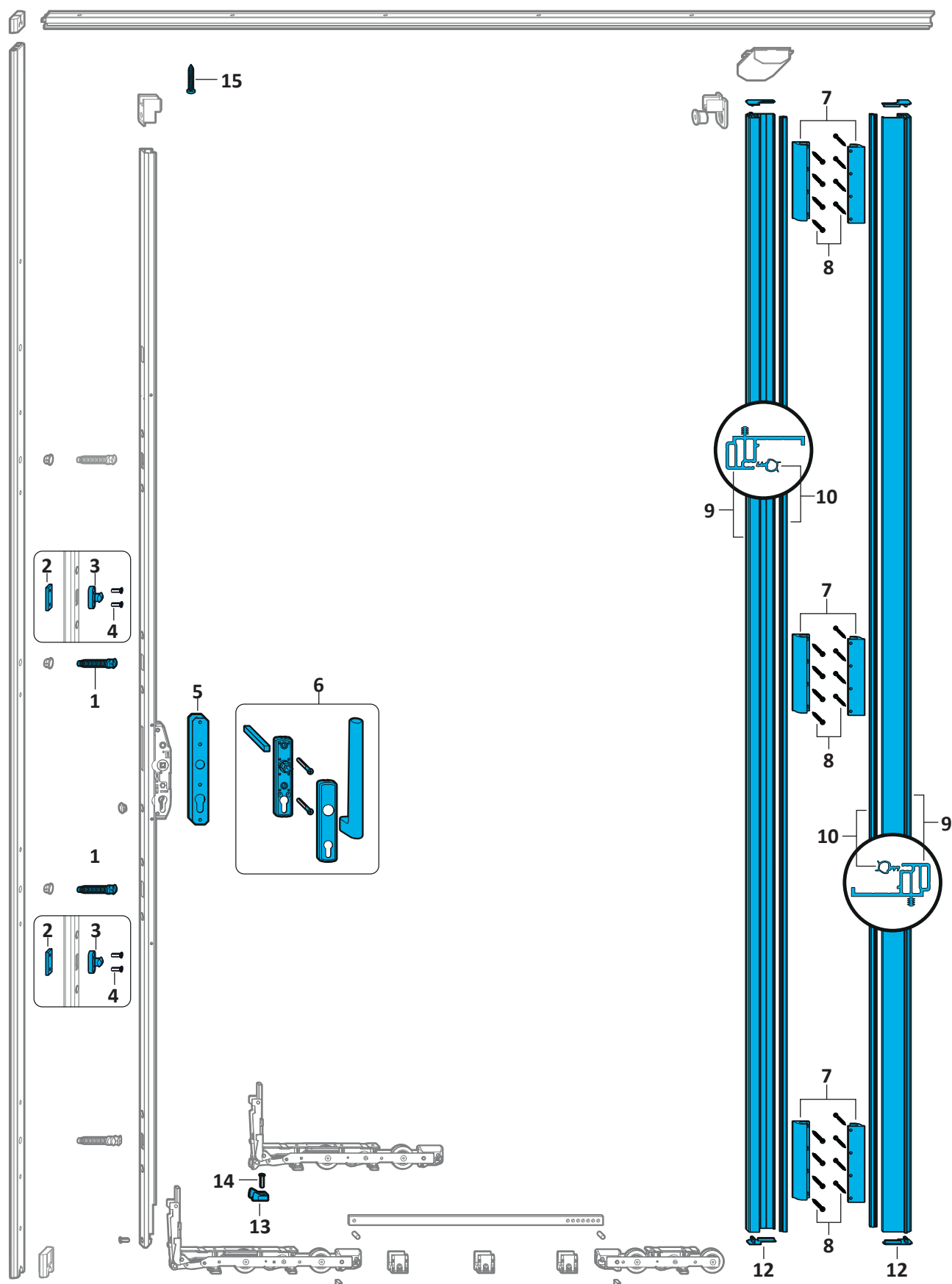


- The corner drive VSU HS400 C Compact must be mounted on the sliding sash.
- Handle Si-line PZ with profile cylinder lockable from the inside is necessary.
- Position drilling for the locking bolt:
 - for soft timber Ø9mm
 - for hard timber Ø11mm



3 Hardware components

3.1 Hardware components sealing rail C



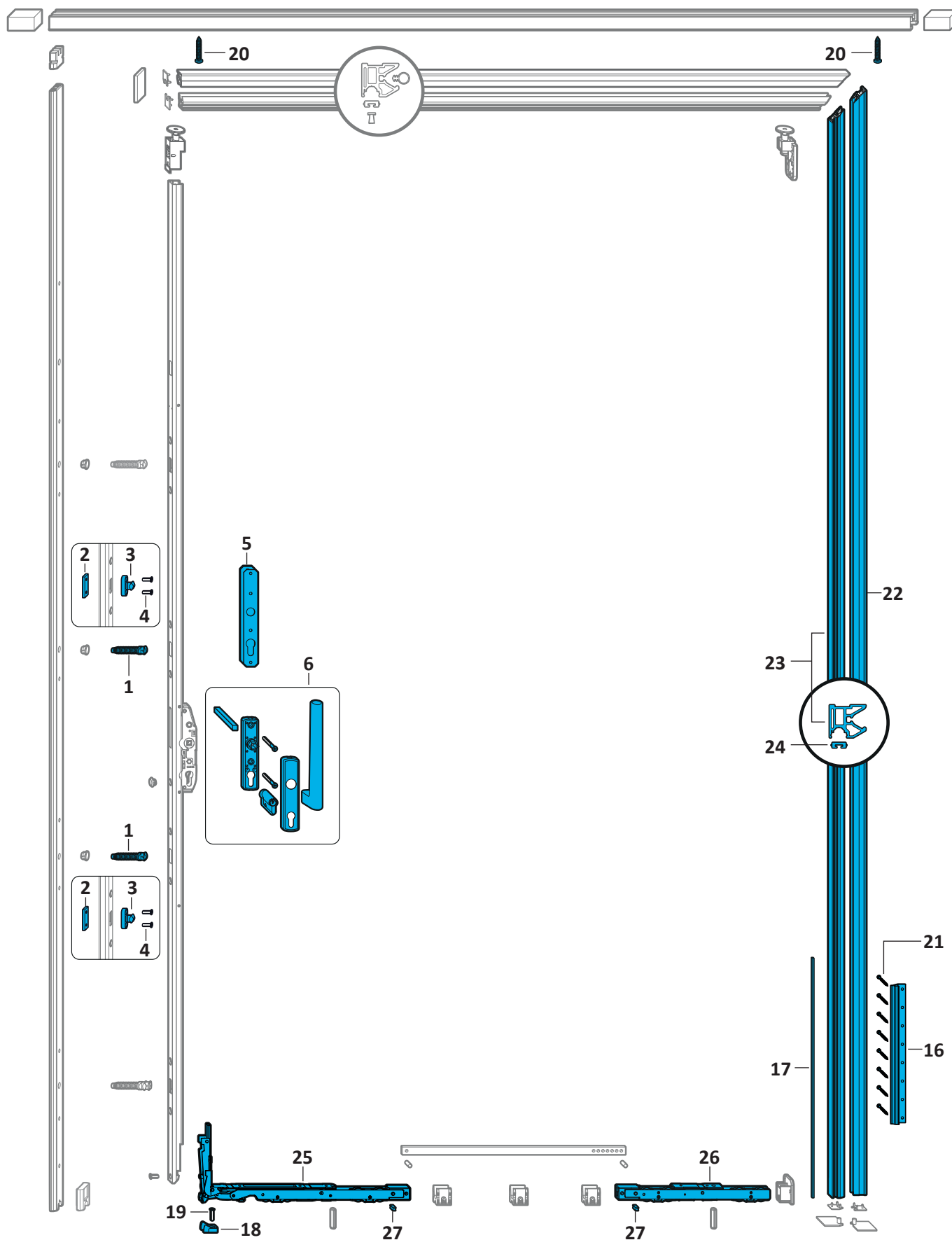


3.2 Hardware list sealing rail C

Item	Pieces Scheme		Material description			Material number
	A	C				
						EV 1 silver
1	2	–	Top locking bolt E			719152
2	–	2	Threaded plate			821619
3	–	2	Locking part top, scheme G			719466
4	–	4	Countersunk screw PZD DIN 965 M 5 x 20 - A2			857717
5	1	2	Anti-drill guard E only suitable for inside profile cylinders			PGZB0120-10001_
6	1	2	Carton handle Si-line HS 300 PZ, inside for lockable elements - with profile half cylinder			EV 1 silver PMHB0020-52401_
						RAL 9003 signal white PMHB0020-50201_
						RAL 8022 black brown PMHB0020-51201_
	1*	2*	Security interlock HS *per sliding sash at least			PMZB0190-50001_
7	6	12	Security interlock (C-E rail) HS			
8	24	48	Screw for frame part 5x55			
	1	2	Sealing rail C HS Sash distance 28 mm	Size 270	Length 2600	RAL 7035 light grey PMZB0180-02101_ RAL 9003 signal white PMZB0180-00201_ RAL9005 black PMZB0180-02301_
9	2	4	Sealing rail C HS			
10	2	4	Seal rail C 2.7m			
11	2	4	Cover cap left sealing rail C			
12	2	4	Cover cap right sealing rail C			
	–	1	Bag HS locking part Scheme G			238691
13	–	1	Locking part G			
14	–	1	Countersunk screw PH M6x20			
15	–	1	Head self-tapping screw B6.3 x 38			



3.3 Hardware components sealing rail C28/48





3.4 Hardware list sealing rail C28/48

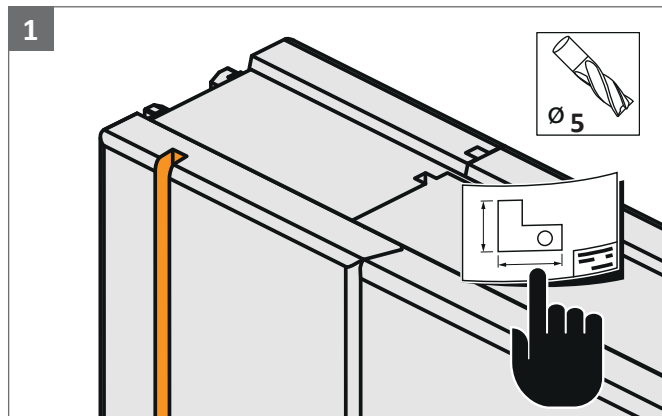
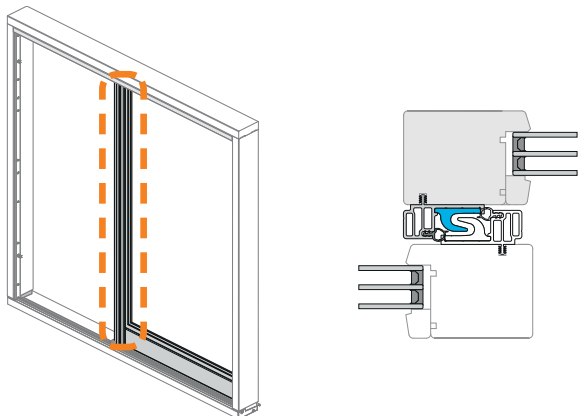
Item	Pieces Scheme		Material description	Material number		
	A	C		EV 1 silver		
1	2	–	Top locking bolt E	719152		
2	–	2	Threaded plate	821619		
3	–	2	Locking part top, scheme G	719466		
4	–	4	Countersunk screw PZD DIN 965 M 5 x 20 - A2	857717		
5	1	2	Anti-drill guard E only suitable for inside profile cylinders	PGZB0120-10001_		
6	1	2	Carton handle Si-line HS 300 PZ, inside for lockable elements - with profile half cylinder	EV 1 silver PMHB0020-52401_	RAL 9003 signal white PMHB0020-50201_	RAL 8022 black brown PMHB0020-51201_
	1	–	Set RC2 sealing rail Scheme A	PMZB1200-00001_		
	–	1	Set RC2 sealing rail Scheme C	PMZB1210-00001_		
16	1	2	RC2 plate sealing rail C28/48			
17	1	2	Square rod 5x5x500mm			
18	1	2	Locking part G			
19	1	2	Countersunk screw PH M6x20			
20	2	4	Head self-tapping screw B6.3 x 38			
21	8	16	Screw for frame part 5x55			
	1	1	Set RC2 sealing rail C28/48 DIN right	RAL 7035 light grey PMZB1231-02101_ PMZB1221-02101_	RAL 9003 signal white PMZB1231-00201_ PMZB1221-00201_	RAL 9005 jet black PMZB1231-02301_ PMZB1221-02301_
		1	Set RC2 sealing rail C28/48 DIN left	PMZB1232-02101_ PMZB1222-02101_	PMZB1232-00201_ PMZB1222-00201_	PMZB1232-02301_ PMZB1222-02301_
22	1	2	Sealing rail C28/48			
23	1	2	Sealing rail C28/48 with milling			
24	2	4	Cover strip for sealing rail C28/48			
	1	2	Basic carton HS400 Scheme C	PMKB1410-10001_		
25	1	2	Corner drive VSU HS400 C Compact			
26	1	2	HS400 Compact bogie wheels			
27	1	2	Brush seal			



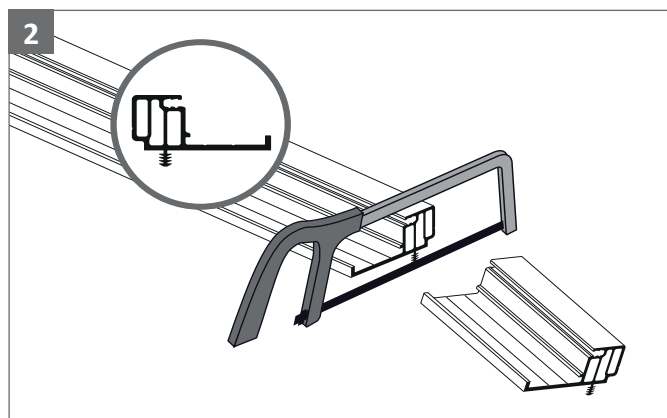
4 Installation

4.1 Sealing rail C

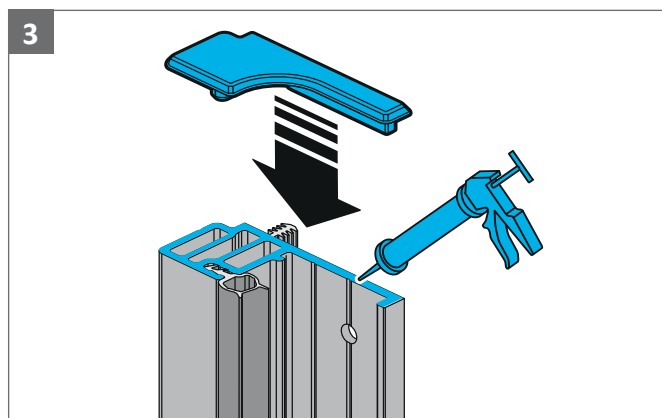
4.1.1 Assembly on fixed sash



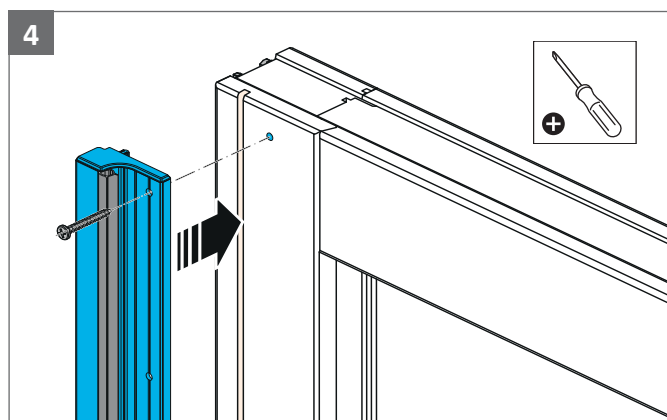
1 Mill the slot for fixing the sealing rail C in the fixed sash. Observe the construction drawing.



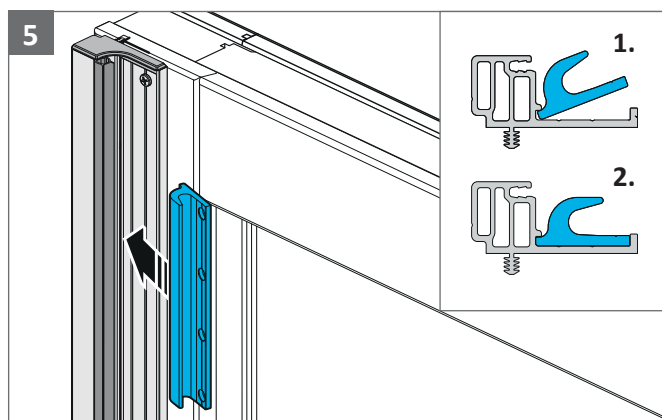
2 Trim the distance rail ESC to the required length.
Length = height of sliding sash–4 mm



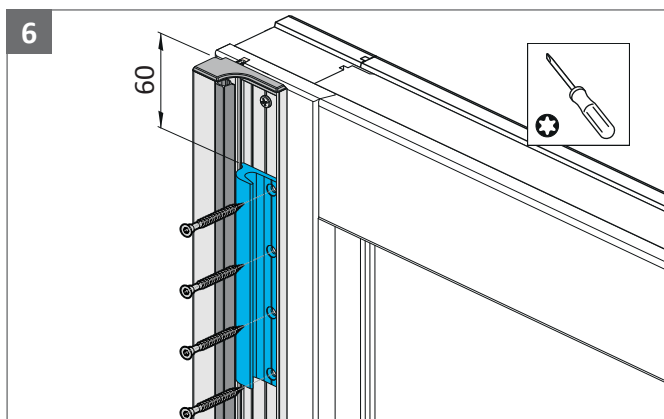
3 Insert seal into the profile. Glue cover caps to both ends.



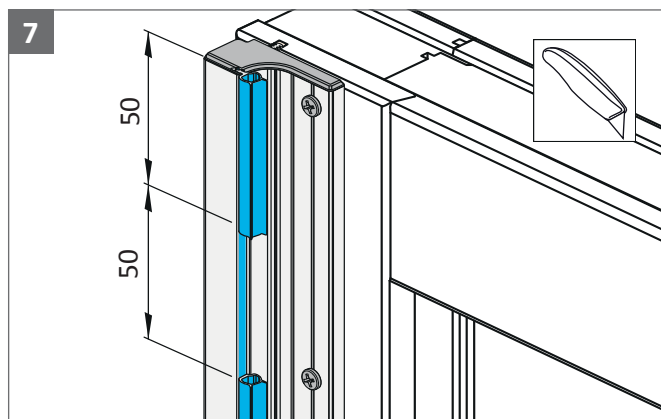
4 Use cheese head screw to fix the sealing rail C to the fixed sash.



5 Place security interlock in the sealing rail C on the fixed sash.

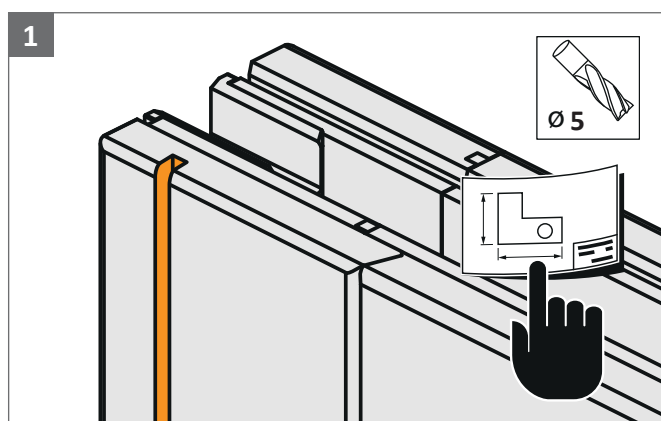
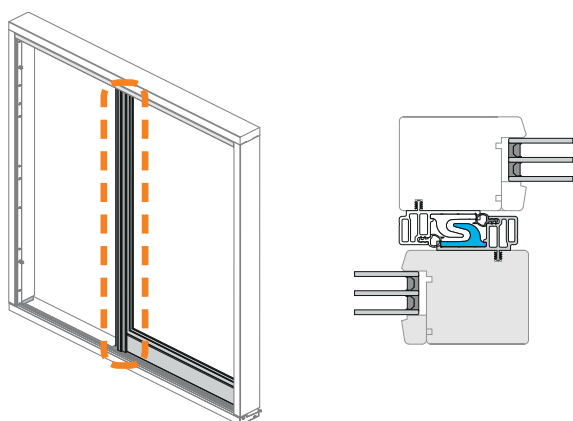


Always position the top and bottom security interlock from the outer edge of the frame. The centre security interlock is centrally aligned. To fix the security interlock, use screw frame part 5x55.

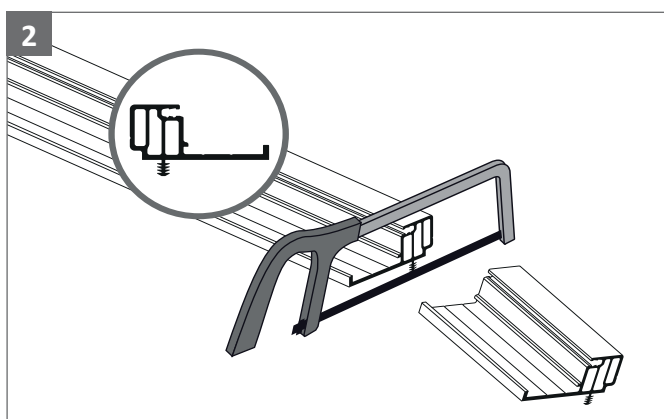


To compensate the pressure, remove the seal to approx. 50 mm.

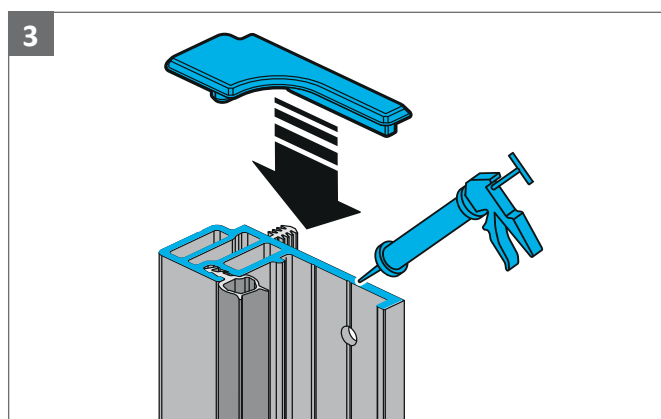
4.1.2 Assembly on sliding sash



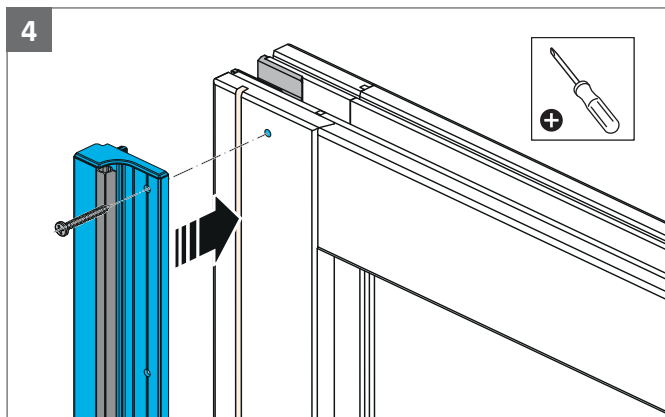
Mill the slot for fixing the sealing rail C in the sliding sash. Observe the construction drawing.



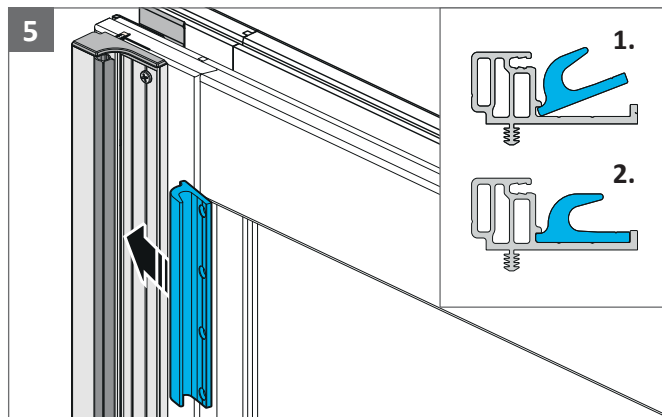
Trim the distance rail C to the required length.
Length = height of sliding sash - 4 mm



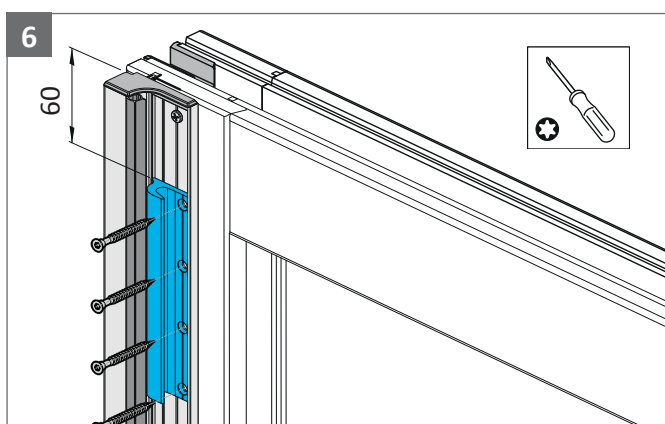
Insert seal into the profile. Glue cover caps to both ends.



Use cheese head screw to fix the sealing rail C to the sliding sash.

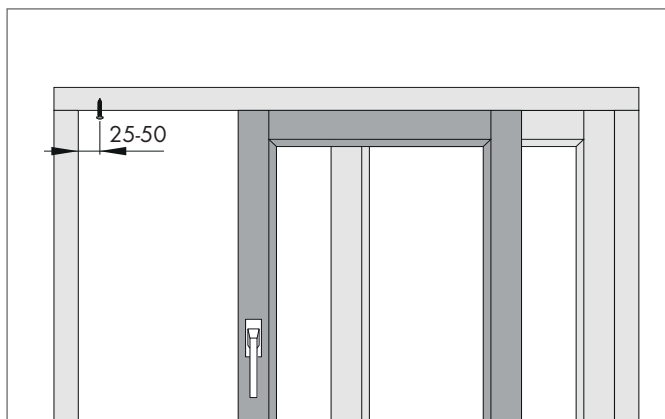


Hintergreifsicherungen in der Dichtschiene C am Schiebeflügel platzieren

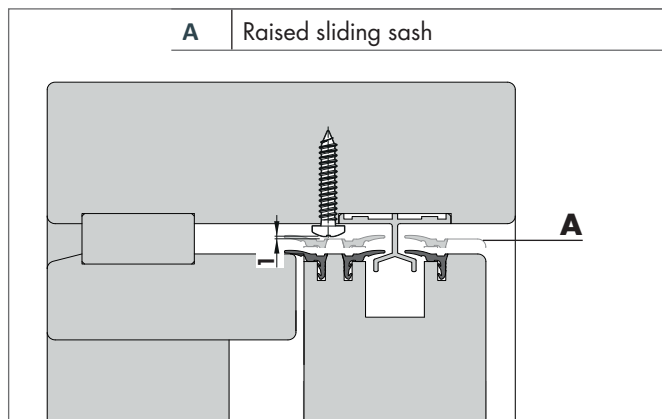


Always position the top and bottom security interlock from the outer edge of the frame. The centre security interlock is centrally aligned. To fix the security interlock, use screw frame part 5x55.

4.1.3 Positioning the raised countersunk head screw



Positioning from locking side on the frame. Pre-drilling the screw hole is recommended.

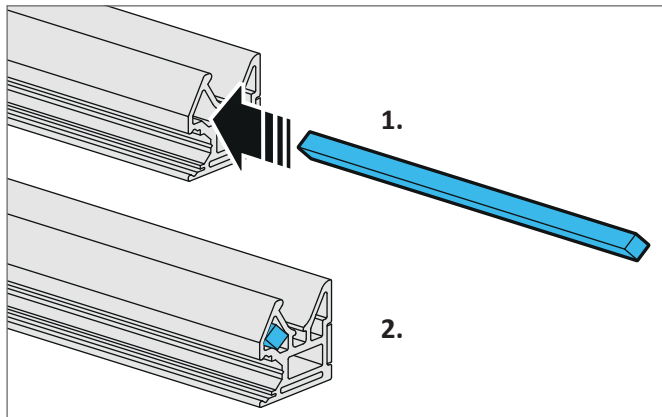
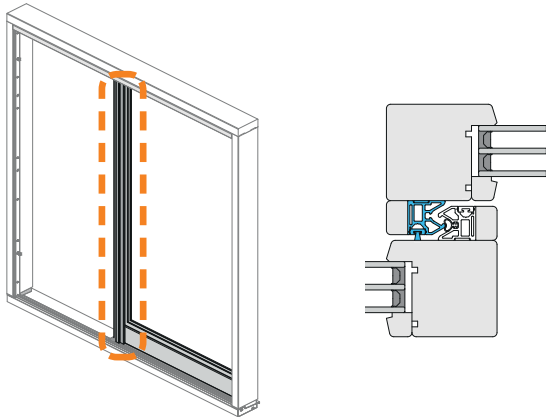


When the sliding sash is lifted, the distance between the screw head and the top edge of the sliding sash should not exceed 1 mm.

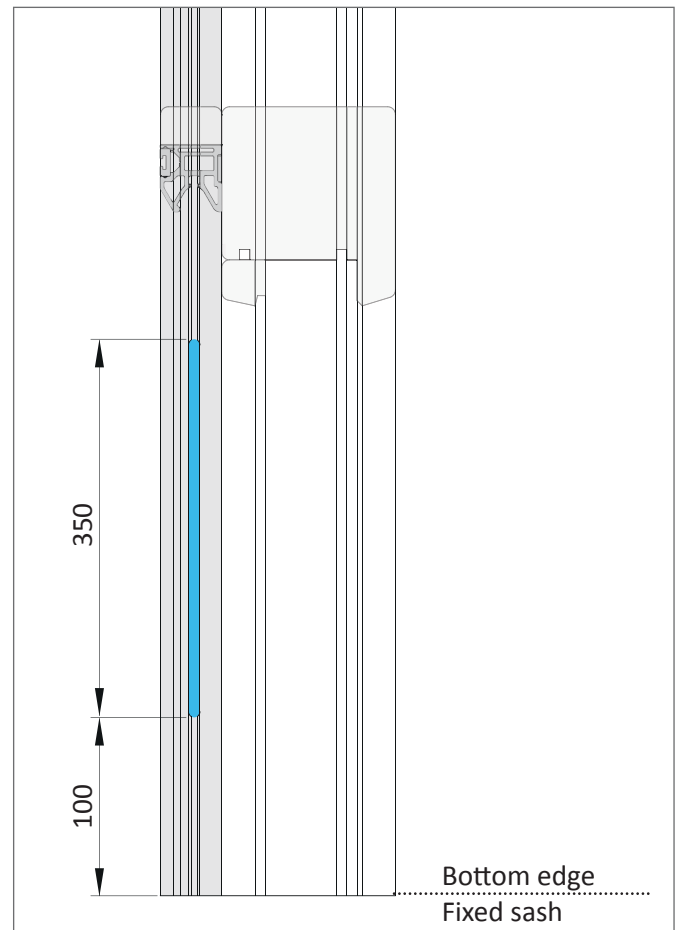


4.2 Sealing rail C28/48

4.2.1 Assembly on fixed sash

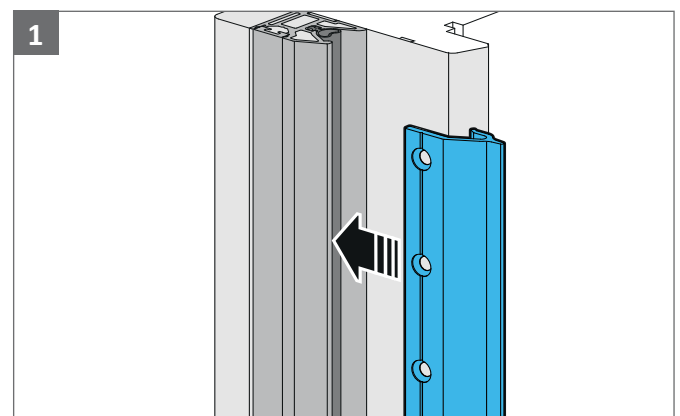
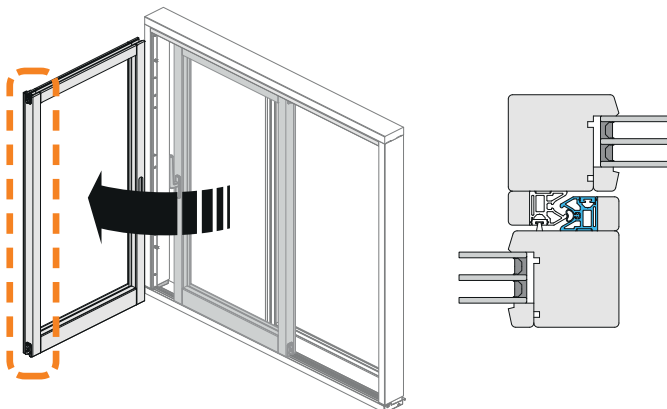


Insert square steel completely into the profile from below.

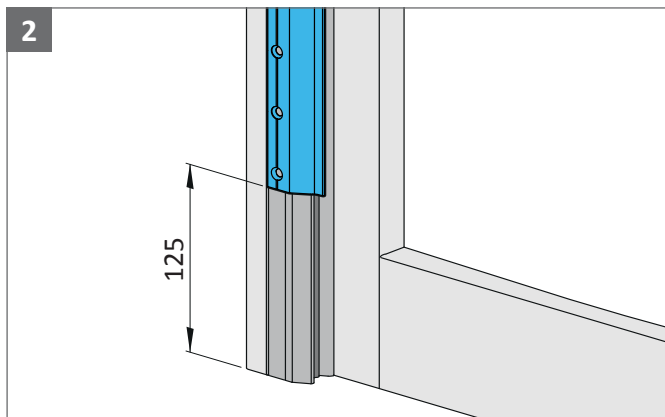


Position sealing rail C28/48 from bottom edge of fixed sash. Interrupt the bubble seal in the region of the milling.

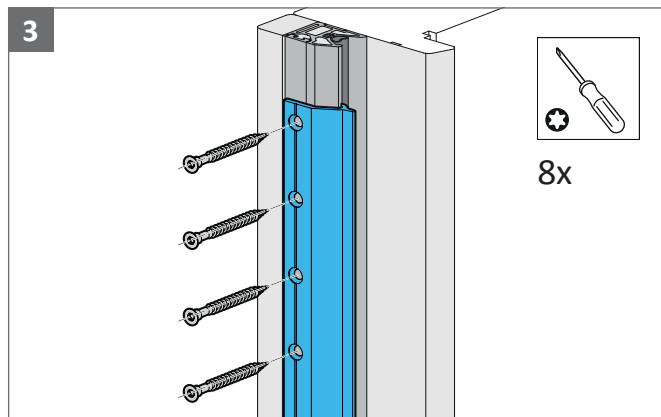
4.2.2 Assembly on sliding sash



Insert RC2 plate into the vertical profile of the sealing rail C28/48 on the sliding sash.

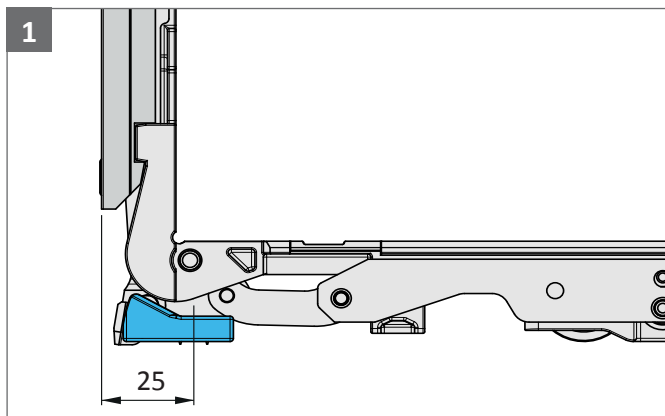


Position RC2 plate. Centre from bottom edge of sash.

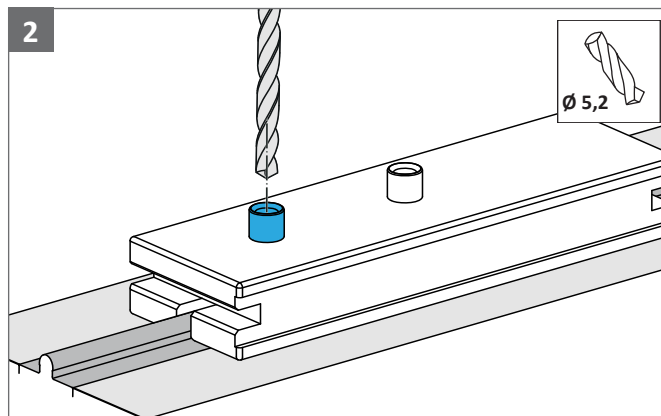


Screw RC2 plate through profile of the sealing rail C28/48 to the sliding sash. Use frame part screw 5x55 to do this. Pre-drilling the screw holes is recommended.

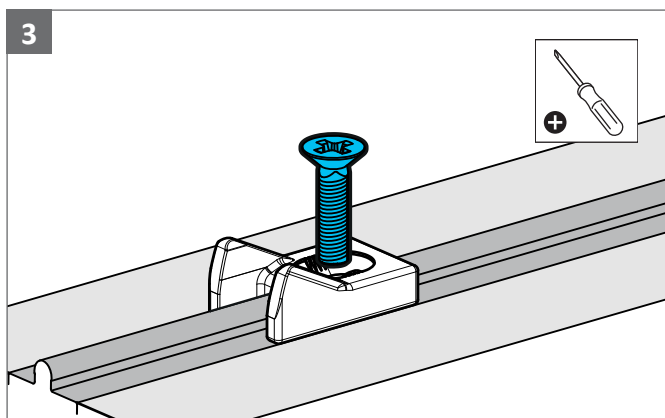
4.2.3 Fixing locking part G



Position of the locking part G from front edge of gear.



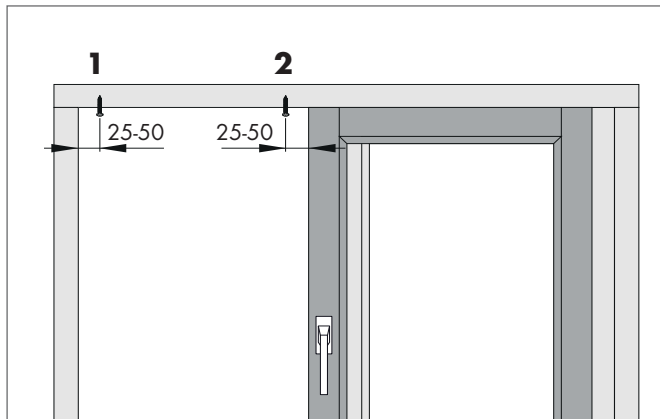
Pre-drill screw hole. Use PABB0310 jig. Then drill the hole with a Ø5.2 drill.



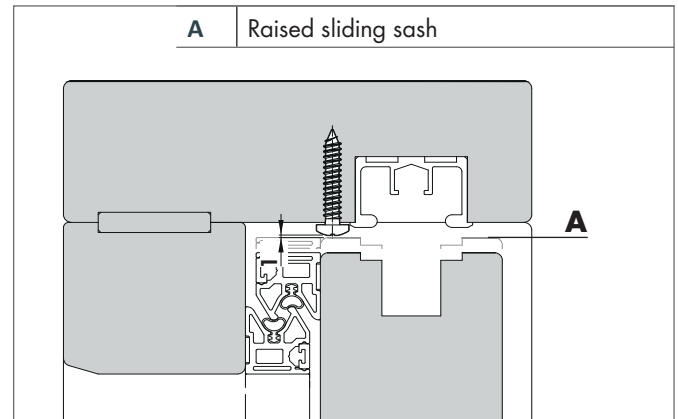
Fix locking part G to the running rail using PH M6x20 countersunk screw.



4.2.4 Positioning the raised countersunk head screw



Position **1** from locking side on the frame.
Position **2** with sliding sash completely open. Pre-drilling the screw hole is recommended.



When the sliding sash is lifted, the distance between the screw head and the top edge of the sliding sash should not exceed 1 mm.

5 Jigs

	Material description	Tool	Material number
	Jig HS _/5		PABB0090-0D301_
	To pre-drill the screw hole for locking part G	Drill Ø5,2	



6 Liability

6.1 Intended use

Any use of this product that is not in accordance with its intended use, or any adaptation of or modification to the product and its associated components for which our express consent has not been obtained, is strictly prohibited. We accept no liability whatsoever for any material losses or injury to people caused by failure to comply with this stipulation.

6.2 Product liability

Our products are guaranteed – subject to correct installation and proper use – for a period of one year from the date of receipt by a company (according to our general terms and conditions) or as otherwise agreed, and for a period of two years for end consumers, in accordance with statutory provisions. As part of our ongoing improvements, we reserve the right to replace individual components or entire products. Damage resulting from defects are excluded from the warranty within the limits of the law. The warranty shall become void if modifications that are not authorised by us or have not been described in this documentation are performed on the product and/or individual components, or if the product and/or individual components is/are dismantled or (partly) dismantled, and the defect is due to the changes made.

6.3 Disclaimer of liability

The product and its components are subject to stringent quality controls. The product functions reliably and safely when used correctly. Our liability for consequential losses and/or claims for damages is excluded, except in the case of wilful misconduct or gross negligence, or where we are responsible for injury to life, physical injury or damage to health. Strict liability under the German Product Liability Act (Produkthaftungsgesetz) remains unaffected. Liability for the culpable violation of significant contractual obligations also remains unaffected; liability in such cases is limited to liability for damage which are specific to the contract and which could have been foreseen. The above regulations are not associated with a change in the burden of proof to the detriment of the consumer.

6.4 Environmental protection

Although our products do not fall within the scope

of the German Electrical and Electronic Equipment Act (ElektroG), SIEGENIA will continue to meet the requirements of this Act and will endeavour to completely eliminate the use of substances that are hazardous to the environment as soon as this becomes technically feasible. Electrical products should not be disposed of as household waste.

6.5 Feedback on documentation

We welcome your comments and suggestions on how to improve our documentation. Please email your comments to dokumentation@siegenia.com.



7 Notes

This image shows a full page of blank graph paper. The grid consists of small, uniform squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.

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