

PORTAL

PSK 200-Z comfort

Parallel slide & tilt hardware
for PVC and timber elements
with 12 mm chamber dimension/airgap.

Window systems

Door systems

Comfort systems

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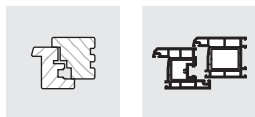
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1 General notes

1.1 Preliminary remarks

These assembly instructions are applicable for timber and PVC profiles. Even if solely PVC profiles are shown in the following assembly steps, the procedures described applies equally to timber profiles.

1.2 Target group of this documentation

This documentation is addressed exclusively to specialist companies. 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 as the safe and professional assembly of the PORTAL hardware is not possible without the relevant expertise. Keep these assembly instructions in a safe place.

1.3 Intended use

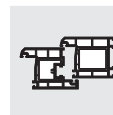
- The PSK 200-Z comfort parallel slide & tilt hardware is intended for use in windows or patio doors with timber or PVC profiles.
- The sash weight is max. 200 kg.
- The PSK 200-Z comfort is intended for use in permanent buildings.
- The PSK 200-Z comfort allows the horizontal opening and closing of windows and patio doors from profiles for parallel slide & tilt elements.
- The parallel slide & tilt elements must be installed vertically, in no circumstances in a sloping position.

1.4 Improper use

- The hardware components described in these assembly instructions are manufactured from steel, zinc plated and then treated with a special process.
- They are not suitable for use:
 - in wet rooms
 - in environments with aggressive, corrosive air
 - in environments with saline air
- Please contact your SIEGENIA sales consultant in such cases

1.5 Safety notes

- Maintenance must be carried out on the PSK 200-Z comfort at least once a year.
See PORTAL maintenance instructions.
- Furthermore, for the PSK 200-Z comfort, the specifications provided by the profile manufacturers or system owners must also be adhered to with regard to possible restrictions on sash dimensions, sash weights and locking distances.
- Where special manufacturing instructions or fabrication guidelines exist, these must be adhered to.
- The specifications given for torques must be adhered to.
- Your complete set of hardware should solely be composed of SIEGENIA hardware components. Otherwise functional disorders and damage could occur, for which we accept no liability.
- If special safety aspects must be observed (e.g. for installation in schools, nurseries, hotels, etc.) we recommend the installation of a lockable handle or the use of the PS 200 comfort.
- All hardware components must be properly assembled as per the description on pages "Assembly" PSK hardware components and "Adjustment".
- PSK 200-Z comfort elements may only be surface treated before the hardware components are assembled. Subsequent surface treatment can limit the functioning capability 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 corrosion in the hardware components.
- Never use acidic lubricants and cleaning agents in the vicinity of the guiding rail/the slider.
- Keep the track of 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.



- We recommend cleaning the surfaces with a mild, pH neutral detergent solution in warm water. This will remove most contamination. After cleaning, always rinse the surface of the PVC profile with clear water.

1.6 Guidelines of the German Association of Quality for Locks and Hardware (in German Richtlinien der Gütegemeinschaft Schlösser und Beschläge e. V.)

You will find everything worth knowing about the proper use and maintenance of hardware for windows and patio doors in the "Guidelines of the German Association of Quality for Locks and Hardware (in German Richtlinien der Gütegemeinschaft Schlösser und Beschläge e. V.)

We prescribe the mandatory observation of these guidelines.

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

VHBH – Hardware for windows and patio doors
 Specifications and notes for end users

1.7 Help and support

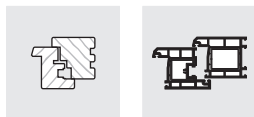
You will find further information on adjustment or processing possibilities under the following QR code.



The QR code sticker can also be found on components of the PSK element. Especially on the inside of the bogie wheels cover caps.

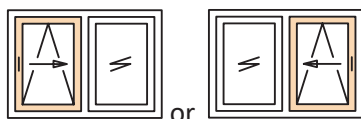
1.8 Dimensions

All specified dimensions are nominal dimensions and include the general tolerances (formerly „free size tolerances“). All nominal dimensions are defined in mm.



1.9 Scheme overview

Scheme A

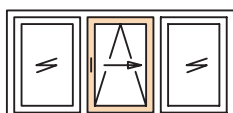


DIN LH

DIN RH

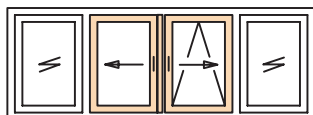
Scheme A with 1 sliding sash/1 fixed sash*

Scheme G



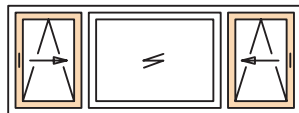
Scheme G with 1 sliding sash/2 fixed sashes*

scheme C



Scheme C with 2 sliding sashes/2 fixed sashes*

Scheme K

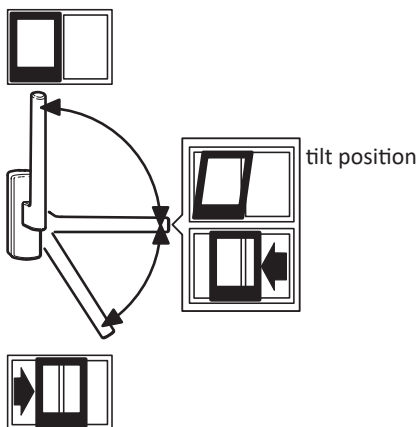


Scheme K with 2 sliding sashes/1 fixed sash*

* Turning sashes instead of the fixed sash are also possible. Turning sashes with rose inside only and removable handle (see handle catalogue).

1.10 Operating sequence:

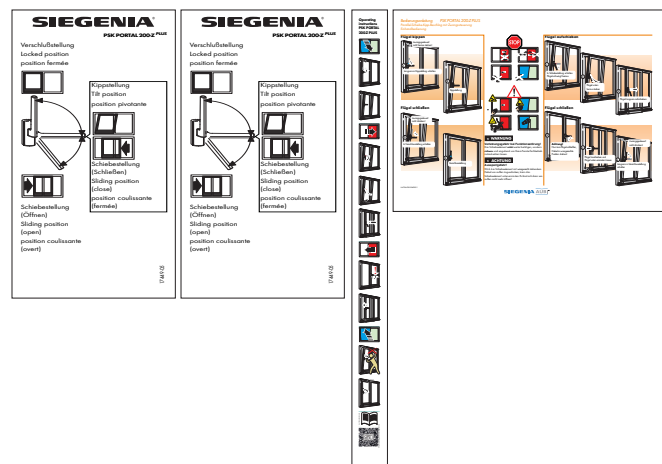
locking position



1.11 Operating sticker

Attach the operating sticker (slide direction DIN LH or DIN RH) in a visible position on the installed parallel slide & tilt sash.

The operating sticker is enclosed in the carton



ATTENTION:

primary and secondary sashes must be labelled accordingly to prevent mishandling.

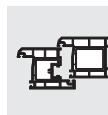
The sliding sashes may be operated only in the order specified below!

Opening:

primary sash first **1.** then secondary sash **2.**

Closing:

secondary sash first **2.** then primary sash **1.**



2 Fabrication guidelines

2.1 Size ranges

Scheme version		A	C
Sash rebate width (FFB)	Sliding sash	740 - 2000	740 - 2000
Sash rebate height (FFH)	Sliding sash	1000 - 2360	1000 - 2360
Frame to sash clearance		125	
Sash weight	with 2 bogie wheels	max. 160 kg	
	with 4 bogie wheels	max. 200 kg	

Ratio sash height (FH) / sash width (FB) < 2.5 : 1

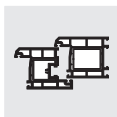
- SIEGENIA-Construction drawings PVC profiles:
 - PSK 200-Z comfort
 - scheme A
 - scheme C
 - scheme G
 - scheme K
- The size ranges specified above must not be exceeded.
- In addition, with regard to the SIEGENIA hardware PSK 200-Z comfort, the specifications of the profile manufacturers or system owners also apply, especially with regard to possible restrictions on sash dimensions, sash weight and locking distance.
- Where special manufacturing instructions or fabrication guidelines exist, these must be explicitly adhered to.
- See the construction drawing for the respective profile system for further details.
- Screw heads must not project into the functional area of components. This can lead to material damage and loss of function.

2.2 Abbreviations

The following abbreviations are used in these assembly instructions:

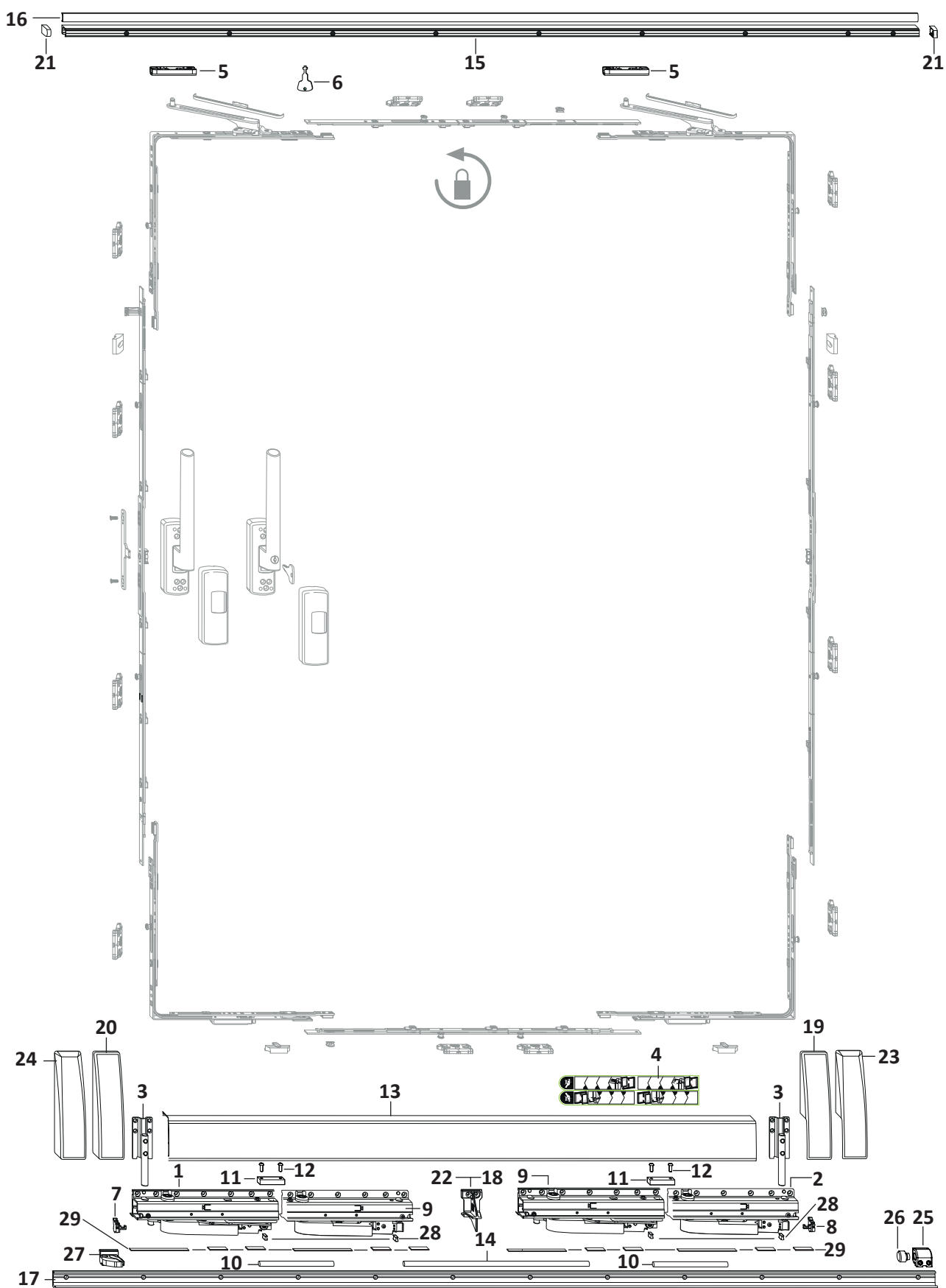
FB	sash width
FFB	sash rebate width
FH	sash height
FFH	sash rebate height
G	handle position
H	rear
L	bogie wheels
M	centre
MV	central lock
OKFF	upper edge finished floor
PZ	profile cylinder

RAH	frame height
RFB	frame rebate width
S-ES	steel-reinforced security
S-RS	steel-roller increased security
SW	wrench size
V	front
VS	locking side
VSO	locking side, top
VSU	locking side, bottom
ZV	central locking gear:



3 Overview of PSK hardware components

3.1 Hardware diagram PSK scheme A





3.2 PSK hardware list scheme A and C

Item	piece scheme		Material description			Material number					
	A	C				Basis	add-ons for colour				
							silver	RAL 9003	RAL 8022	F9	old gold
	1	2	PSK comfort	consisting of:	RH LH	PMKJ1031-10001_ PMKJ1032-10001_					
1	1	2	bogie wheels PSK COMFORT V		front						
2	1	2	bogie wheels PSK COMFORT H		rear						
3	2	4	vertical supporting part PSK COMFORT								
4	1	2	sticker PSK bogie wheels safeguards								
5	2	4	slider PSK COMFORT								
6	1	2	PORTAL key								
7	1	2	bogie wheels safeguards		front	PLWL1031-10001_ PLWL1032-10001_					
8	1	2	bogie wheels safeguards		rear						
	2	4	PSK comfort M necessary for sliding sash > 160 kg		RH LH						
9	2	4	bogie wheels PSK COMFORT M		centre						
10	1	2	connecting rod Ø10 x 145								
11	2	4	connecting piece PSK comfort M								
12	4	8	Pan-head screw M 6 x 16								

depending on sash rebate width (FFB)

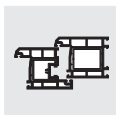
	1	2	Profile set PSK COMFORT	Size ¹⁾ 87/200 107/240 130/286 160/346 200/426	FFB 740- 870 871-1070 1071-1300 1301-1600 1601-2000	PMPJ1100 PMPJ1110 PMPJ1120 PMPJ1130 PMPJ1140	-52501_	-50201_	-51201_	-5H401_	-5H001_
13	1	2	cover rail L								
14	1	2	connecting rod L								
15	1	2	guiding rail								
16	1	2	cover rail F								
17	1	2	running rail								
18	0-2	0-4	Supporting piece L								

for comfort style version

	1	2	Bag cover cap set PSK COMFORT Style			PMAJ2050	-02501_	-00201_	-01201_	-0H401_	-0H001_
19	1	2	cover cap L Style		RH						
20	1	2	cover cap L Style		LH						
21	2	4	cover cap F								
22	1-2	2-4	Supporting piece L if additionally required	carton with 100 piece							

for comfort Soft version

	1	2	Bag cover cap set PSK COMFORT Soft			PMAJ1050	-02501_	-00201_	-01201_	-0H401_	-0H001_
23	1	2	cover cap L Soft	alternative to item 19	RH						
24	1	2	cover cap L Soft	alternative to item 20	LH						
21	2	4	cover cap F								



PSK 200-Z comfort

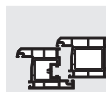
Overview of PSK hardware components

PORTAL**PSK**

Item	piece scheme		Material description		Material number					
	A	C			Basis	add-ons for colour				
						silver	RAL 9003	RAL 8022	F9	old gold
	1	2	Bag of accessories running rail PSK comfort	RH	Basis	add-ons for colour				
					PMZJ2051	Si-silver powder-coated VE 1: -02501_	Si-silver powder-coated VE 10: -02502_			
						Si-silver optic VE 1: -10001_	Si-silver optic VE 10: -10002_			
				LH	black VE 1: -09901_	black VE 10: -09902_				
					PMZJ2052	Si-silver powder-coated VE 1: -02501_	Si-silver powder-coated VE 10: -02502_			
						Si-silver optic VE 1: -10001_	Si-silver optic VE 10: -10002_			
					black VE 1: -09901_	black VE 10: -09902_				
25	1	2	stop							
26	1	2	stop core							
27	1	2	trigger							
22	1-2	2-4	Supporting piece L if additionally required	carton with 100 piece	PZLJ1010-09906_					

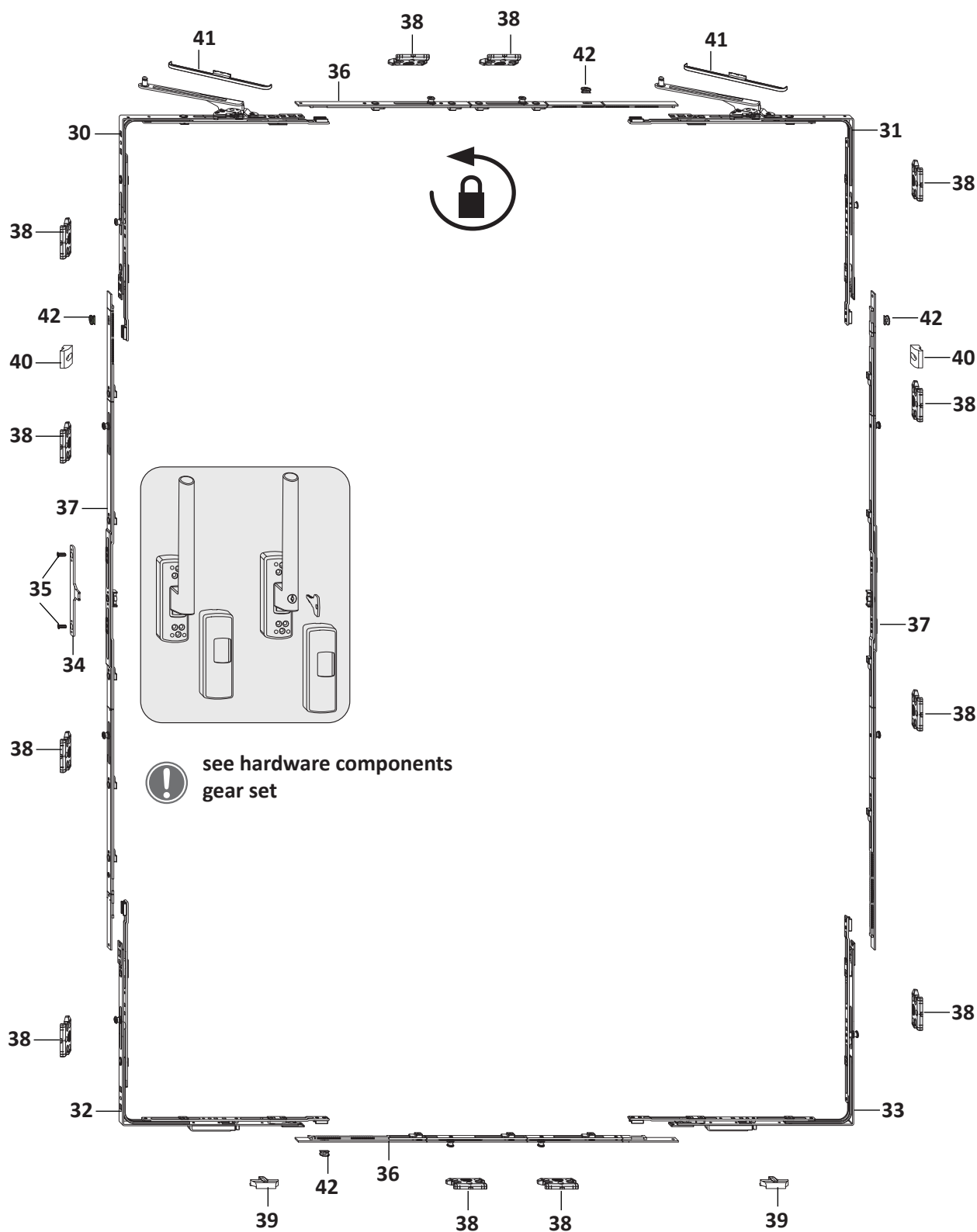
Accessories

28	1	2	Sealing brush set 13 mm		PZUJ0030-00001_					
29	2	4	Distance plate set LW for support of the bogie wheels	consisting of:	height:	1 mm	2 mm	3 mm	4 mm	8 mm
						PMZJ1060	PMZJ1070	PMZJ1080	PMZJ1090	PMZJ1100
						-00001_	-00001_	-00001_	-00001_	-00001_
	4	8	Distance plate 120 x 11			Plate height depending on profile; see product catalogue or construction drawing for determination				
	8	16	Distance plate 28 x 11							



4 Overview of hardware components central locking gear

4.1 Hardware diagram central locking gear scheme A





4.2 Hardware list central locking gear scheme A

Item	piece scheme	Material description		Material number					
				Basis	add-ons for colour				
	A				silver	RAL 9003	RAL 8022	F9	old gold
	1	Corner drive PSK 200-Z 9NA S-RS comfort mushroom locking cam	RH LH						PMEL1021-10001_ PMEL1022-10001_
		Corner drive PSK 200-Z 13 NA S-RS comfort mushroom locking cam	RH LH						PMEL1011-10001_ PMEL1012-10001_
30	1	corner drive VSO ...	RH/LH						
31	1	corner drive BSO ...	RH/LH						
32	1	corner drive VSU ...	RH/LH						
33	1	corner drive BSU ...	RH/LH						
34	1	coupling bracket	for PMEL102... 18						
	1	coupling bracket	for PMEL101... 18/2						
35	2	countersunk screw	M 5 x 10 PZD						

depending on sash rebate width (FFB)

36	2	Linkage S-RS comfort mushroom locking cam	Size	FFB	PZKL0460-10001_ PZKL0270-10001_ PZKL0280-10001_ PZKL0290-10001_ PZKL0300-10001_ PZKL0310-10001_ PZKL0320-10001_ PZKL0330-10001_
			79	770- 790	
			100	791-1000	
			123	1001-1230	
			146	1231-1460	
			169	1461-1690	
			169/2	1461-1690	
			192	1691-1920	
			215	1921-2000	

depending on sash rebate height (FFH)

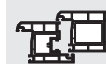
37	2	Gear OS S-RS comfort mushroom locking cam	Size	Handle position	FFH	713303 PGKL0130-10003_ PGKL0140-10001_ PGKL0150-10001_ PGKL0160-10001_ PGKL0170-10001_
			123	490	1001-1230	
			146	590	1231-1460	
			169	690	1461-1690	
			192	990	1691-1920	
			215	990	1921-2150	
			238	990	1511-2360	

depending on profile system

38	4...	Striker plate S-RS for comfort mushroom locking cam				see profile data sheet
	1	Bag of frame parts PSK 200-Z				see profile data sheet
39	2	Locking piece PSK-Z				
40	2	Distance piece				

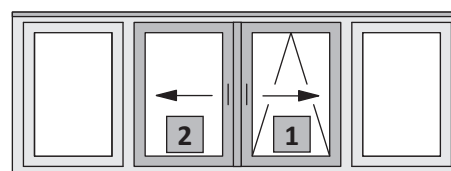
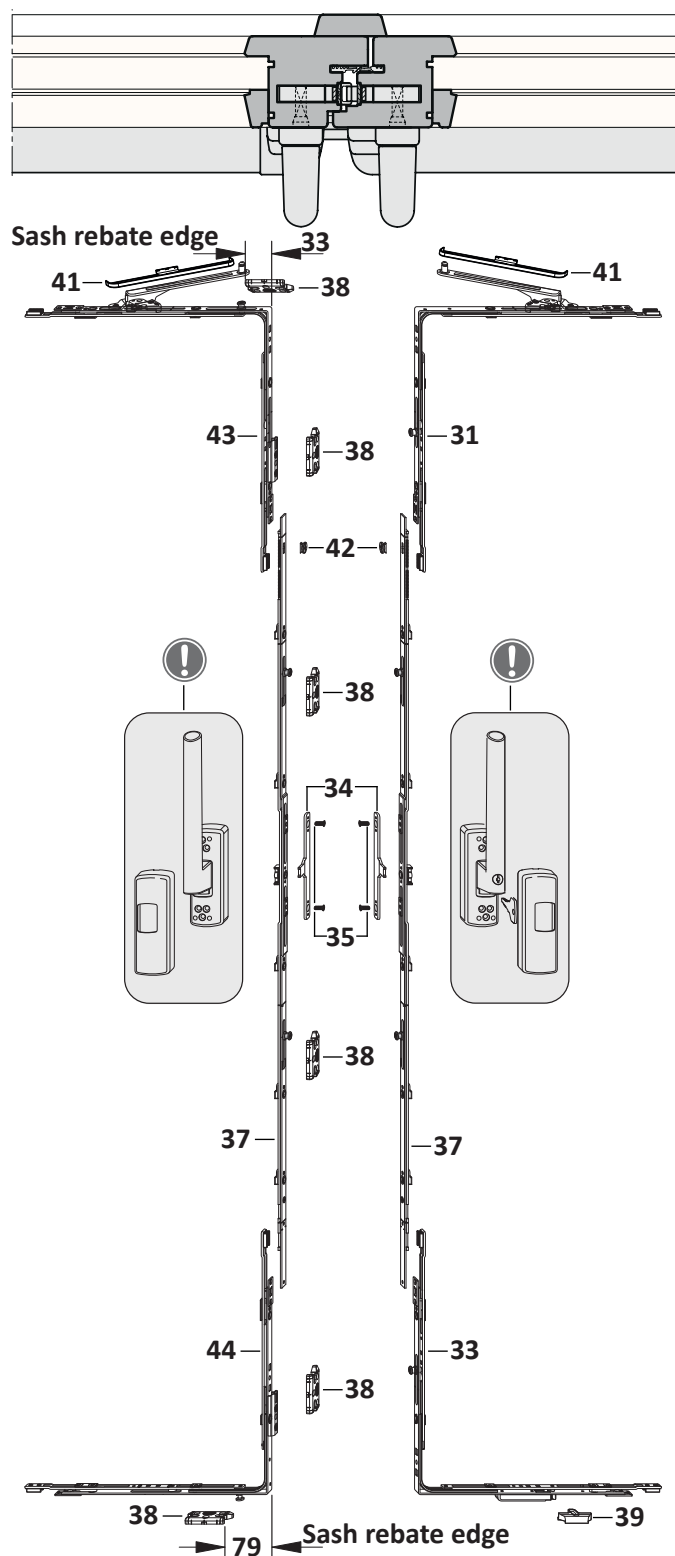
Accessories

41	0..2	Cover cap S				PKAL1010	-02401_	-00201_	-01201_	-0H401_	-0H001_
34	1	coupling bracket see product catalogue for determination	15 18 18/2 18/3 WK2			717240 643.2146.0003X60 720585 PGZL0050-10001_ PGZL0040-10001_					
w/o fig.	0/1	Linkage	size 23 (without cam)			PZKL0390-100010					
42	0/4	Retaining clamp				702543					



4.3 Hardware diagram central locking gear scheme C

4.3.1 Variant 1



* frame part is dependent on profile system

! see hardware components gear set

Profile system	Backset	
	1	2
Timber	45	40
PVC	40	40

The primary and secondary sash must be marked accordingly for the prevention of misuse. The sliding sash may only be operated in the defined sequence!

Opening:

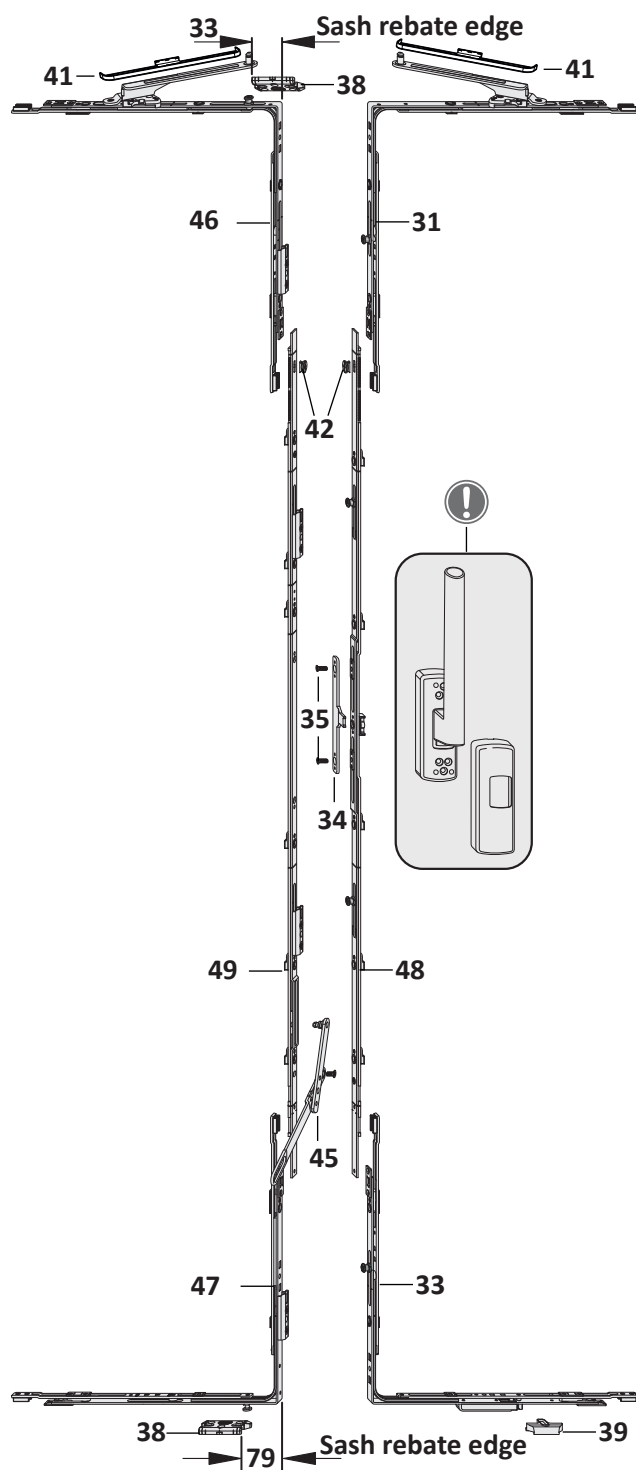
primary sash first **1**, then secondary sash

Closing:

secondary sash first **2**, then primary sash **1**

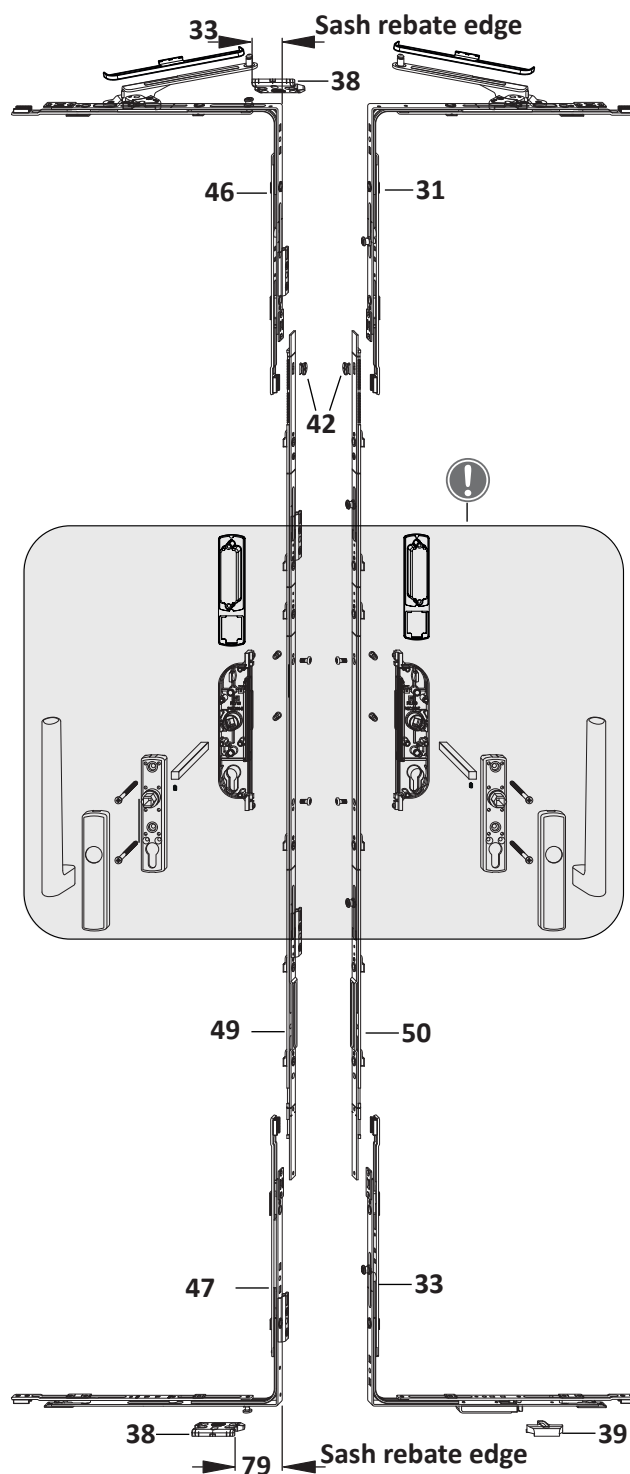


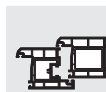
4.3.2 Variant 2a



see hardware components gear set

4.3.3 Variant 2b





4.4 Hardware list central locking gear scheme C

4.4.1 Variant 1

Item	piece scheme	Material description		Material number					
	Basis			add-ons for colour					
				silver	RAL 9003	RAL 8022	F9	old gold	
	1	Corner drive PSK 200-Z 9NA S-RS comfort mushroom locking cam	RH LH	PMEL1021-10001_ PMEL1022-10001_					
		Corner drive PSK 200-Z 13 NA S-RS comfort mushroom locking cam	RH LH	PMEL1011-10001_ PMEL1012-10001_					
30	1	corner drive VSO ...	RH/LH						
31	1	corner drive BSO ...	RH/LH						
32	1	corner drive VSU ...	RH/LH						
33	1	corner drive BSU ...	RH/LH						
34	1	coupling bracket	18 or 18/2						
35	2	countersunk screw	M 5 x 10 PZD						
	1	Corner drive PSK 200-Z 9NA S-RS scheme C comfort mushroom locking cam	RH LH	PMEL1061-10001_ PMEL1062-10001_					
		Corner drive PSK 200-Z 13 NA S-RS scheme C comfort mushroom locking cam	RH LH	PMEL1051-10001_ PMEL1052-10001_					
43	1	corner drive VSO ... scheme C	RH/LH						
31	1	corner drive BSO ...	RH/LH						
44	1	corner drive VSU ... scheme C	RH/LH						
33	1	corner drive BSU ...	RH/LH						
34	1	coupling bracket	18 or 18/2						
35	2	countersunk screw	M 5 x 10 PZD						

depending on sash rebate width (FFB)

36	4	Linkage S-RS (comfort mushroom locking cam)	Size 79 100 123 146 169 169/2 192 215	FFB 740- 790 791-1000 1001-1230 1231-1460 1461-1690 1461-1690 1691-1920 1921-2000	PZKL0460-10001_ PZKL0270-10001_ PZKL0280-10001_ PZKL0290-10001_ PZKL0300-10001_ PZKL0310-10001_ PZKL0320-10001_ PZKL0330-10001_
----	---	--	---	---	--

depending on sash rebate height (FFH)

37	4	Gear OS S-RS (comfort mushroom locking cam)	Size 123 146 169 192 215 238	Handle position 490 590 690 990 990 990	FFH 1001-1230 1231-1460 1461-1690 1691-1920 1921-2150 2151-2360	713303 PGKL0130-10003_ PGKL0140-10001_ PGKL0150-10001_ PGKL0160-10001_ PGKL0170-10001_
----	---	--	--	---	---	---

depending on profile system

38	8...	Striker plate S-RS for comfort mushroom locking cam			see profile data sheet
	2	Bag of frame parts PSK 200-Z			see profile data sheet
39	4	Locking piece PSK-Z			
40	4	Distance piece			

Accessories

41	0..4	Cover cap S			PKAL1010	-02401_	-00201_	-01201_	-0H401_	-0H001_
34	2	coupling bracket	15 18 18/2 18/3 WK2			717240 643.2146.0003X60 720585 PGZL0050-10001_ PGZL0040-10001_				
w/o fig.	0/2	Linkage		size 23 (without cam)		PZKL0390-100010				
42	0/8	Retaining clamp				702543				



4.4.2 Variant 2a

Item	piece scheme C	Material description	Basis	Material number				
				add-ons for colour				
				silver	RAL 9003	RAL 8022	F9	old gold
45	1	Operating lever						PHZL0010-10001_
	1	Corner drive PSK 200-Z 9NA S-RS comfort mushroom locking cam	RH LH					PMEL1021-10001_ PMEL1022-10001_
		Corner drive PSK 200-Z 13 NA S-RS comfort mushroom locking cam	RH LH					PMEL1011-10001_ PMEL1012-10001_
30	1	corner drive VSO ...	RH/LH					
31	1	corner drive BSO ...	RH/LH					
32	1	corner drive VSU ...	RH/LH					
33	1	corner drive BSU ...	RH/LH					
34	1	coupling bracket	18 or 18/2					
35	2	countersunk screw	M 5 x 10 PZD					
	1	Corner drive PSK 200-Z 9NA S-RS scheme C comfort mushroom locking cam	RH LH					PMEL1061-10001_ PMEL1062-10001_
		Corner drive PSK 200-Z 13 NA S-RS scheme C comfort mushroom locking cam	RH LH					PMEL1051-10001_ PMEL1052-10001_
46	1	corner drive VSO ... scheme C	RH/LH					
31	1	corner drive BSO ...	RH/LH					
47	1	corner drive VSU ... scheme C	RH/LH					
33	1	corner drive BSU ...	RH/LH					
34	1	coupling bracket	18 or 18/2					
35	2	countersunk screw	M 5 x 10 PZD					

depending on sash rebate width (FFB)

36	4	Linkage S-RS comfort mushroom locking cam	Size	FFB	
			79	740- 790	PZKL0460-10001_
			100	791-1000	PZKL0270-10001_
			123	1001-1230	PZKL0280-10001_
			146	1231-1460	PZKL0290-10001_
			169	1461-1690	PZKL0300-10001_
			169/2	1461-1690	PZKL0310-10001_
			192	1691-1920	PZKL0320-10001_
			215	1921-2000	PZKL0330-10001_

depending on sash rebate height (FFH)

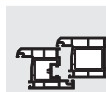
48	3	Gear OS S-RS comfort mushroom locking cam	Size	Handle position	FFH	
			169	690	1461-1690	PGKL0140-10001_
			192	990	1691-1920	PGKL0150-10001_
			215	990	1921-2150	PGKL0160-10001_
			238	990	2151-2360	PGKL0170-10001_
49	1	Linkage S-RS with preassembled striker plates	169/2		1461-1690	PZKL0350-10001_
			192		1691-1920	PZKL0360-10001_
			215		1921-2150	PZKL0370-10001_
			238		2151-2360	PZKL0380-10001_

depending on profile system

38	8...	Striker plate S-RS (for comfort mushroom locking cam)		see profile data sheet
	2	Bag of frame parts PSK 200-Z		see profile data sheet
39	4	Locking piece PSK-Z		
40	4	Distance piece		

Accessories

41	0..4	Cover cap S*		PKAL1010	-02401_	-00201_	-01201_	-0H401_	-0H001_
34	2	coupling bracket	15						717240
			18						643.2146.0003X60
			18/2						720585
			18/3						PGZL0050-10001_
			WK2						PGZL0040-10001_
w/o fig.	0/2	Linkage	size 23 (without cam)						PZKL0390-100010
42	0/8	Retaining clamp							702543



4.4.3 Variant 2b

Item	piece scheme	Material description	Basis	Material number				
				add-ons for colour				
	C			silver	RAL 9003	RAL 8022	F9	old gold
	1	Corner drive PSK 200-Z 9NA S-RS comfort mushroom locking cam	RH LH	PMEL1021-10001_ PMEL1022-10001_				
		Corner drive PSK 200-Z 13 NA S-RS comfort mushroom locking cam	RH LH	PMEL1011-10001_ PMEL1012-10001_				
30	1	corner drive VSO ...	RH/LH					
31	1	corner drive BSO ...	RH/LH					
32	1	corner drive VSU ...	RH/LH					
33	1	corner drive BSU ...	RH/LH					
34	1	coupling bracket	18 or 18/2					
35	2	countersunk screw	M 5 x 10 PZD					
	1	Corner drive PSK 200-Z 9NA S-RS scheme C comfort mushroom locking cam	RH LH	PMEL1061-10001_ PMEL1062-10001_				
		Corner drive PSK 200-Z 13 NA S-RS scheme C comfort mushroom locking cam	RH LH	PMEL1051-10001_ PMEL1052-10001_				
46	1	corner drive VSO ... scheme C	RH/LH					
31	1	corner drive BSO ...	RH/LH					
47	1	corner drive VSU ... scheme C	RH/LH					
33	1	corner drive BSU ...	RH/LH					
34	1	coupling bracket	18 or 18/2					
35	2	countersunk screw	M 5 x 10 PZD					

depending on sash rebate width (FFB)

36	4	Linkage S-RS comfort mushroom locking cam	Size	FFB	PZKL0460-10001_ PZKL0270-10001_ PZKL0280-10001_ PZKL0290-10001_ PZKL0300-10001_ PZKL0310-10001_ PZKL0320-10001_ PZKL0330-10001_
			79	740- 790	
			100	791-1000	
			123	1001-1230	
			146	1231-1460	
			169	1461-1690	
			169/2	1461-1690	
			192	1691-1920	
			215	1921-2000	

depending on sash rebate height (FFH)

50	3	Linkage S-RS comfort mushroom locking cam	Size	Handle position	FFH	PZKL0310-10001_ PZKL0320-10001_ PZKL0330-10001_ PZKL0340-10001_
			169/2	690	1461-1690	
			192	990	1691-1920	
			215	990	1921-2150	
49	1	Linkage S-RS with preassembled striker plates	238	990	2151-2360	PZKL0350-10001_ PZKL0360-10001_ PZKL0370-10001_ PZKL0380-10001_
			169/2	690	1461-1690	
			192	990	1691-1920	
			215	990	1921-2150	
			238	990	2151-2360	

depending on profile system

38	8...	Striker plate S-RS for comfort mushroom locking cam	see profile data sheet					
	2	Bag of frame parts PSK 200-Z	see profile data sheet					
39	4	Locking piece PSK-Z						
40	4	Distance piece						

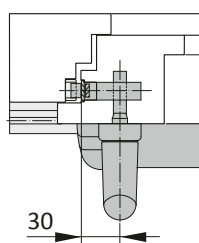
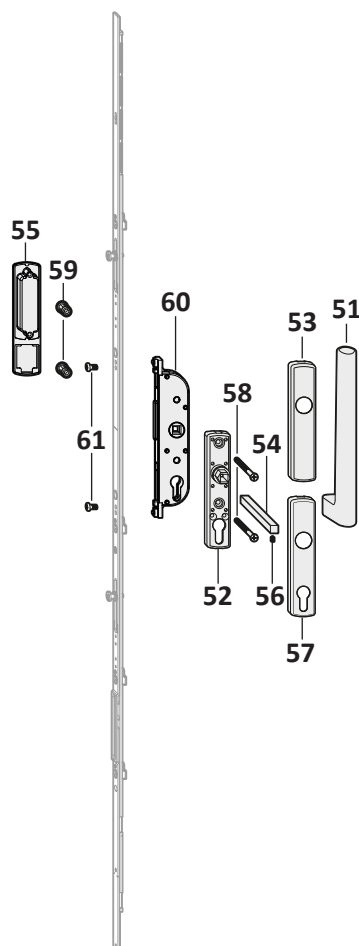
Accessories

41	0..4	Cover cap S			PKAL1010	-02401_	-00201_	-01201_	-0H401_	-0H001_
34	2	coupling bracket			15	717240				
					15	643.2146.0003X60				
					18/2	720585				
					18/3	PGZL0050-10001_				
					WK2	PGZL0040-10001_				
w/o fig.	0/2	Linkage	size 23 (without cam)			PZKL0390-100010				
42	0/8	Retaining clamp			702543					

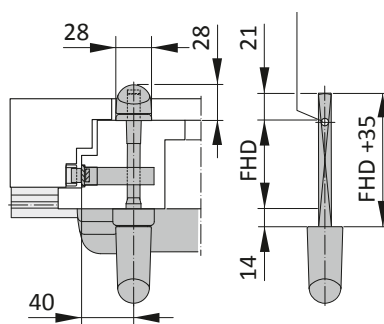
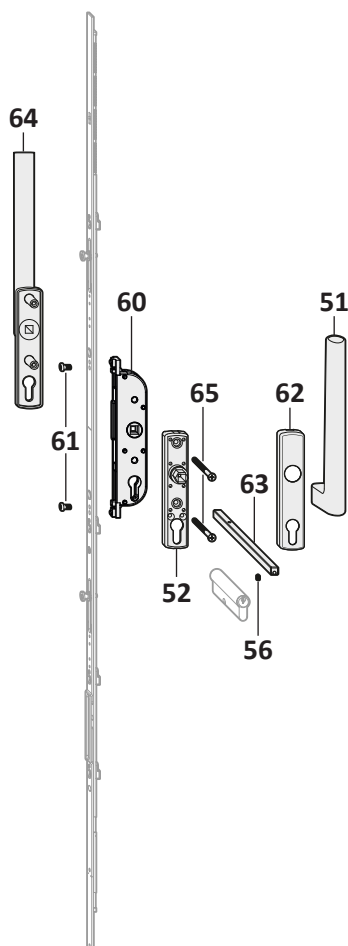


4.5 Hardware components gear set

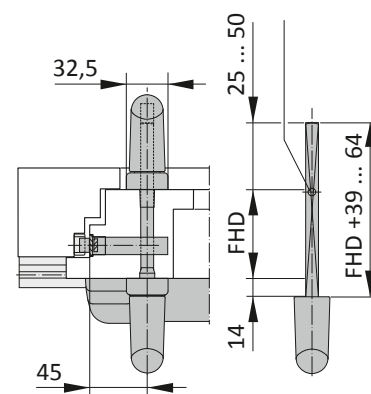
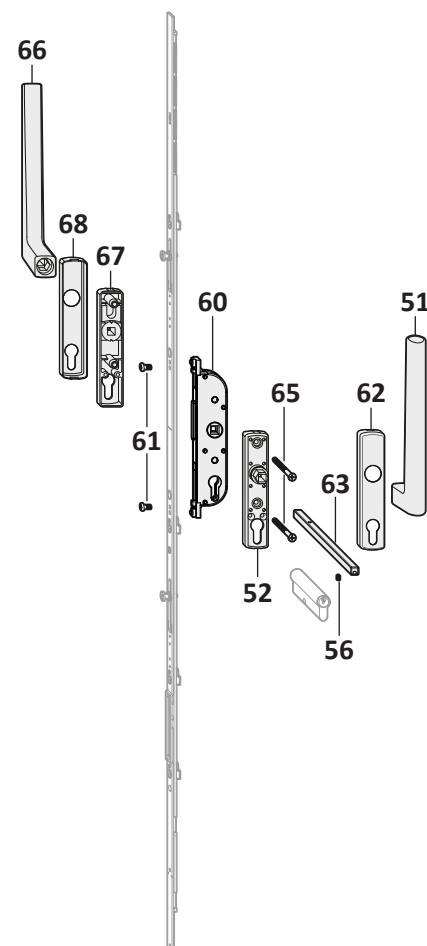
1 lockable profile cylinder inside

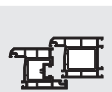


2 lockable profile cylinder inside and outside handle flat outside



3 Element is lockable profile cylinder inside and outside handle high outside





4.6 Hardware list gear set

Item	Material description			piece per VE	Material number						piece scheme	
					Basis	add-ons for colour						
							silver	RAL 9003	RAL 8022	F9	old gold	A

1

Element is lockable with a profile cylinder inside

	Carton handle Si-line HSK			PMHC0010-	-52401_	-50201_	-51201_	-5H401_	-	1	2	
51	Handle		1								1	2
52	rose		1									
53	Cover cap		1									
54	Square		1									
55	Sliding grip		1									
56	Grub screw M 6		1									
57	Cover cap Si-line HS 300 PZ			PKHB0040	-52401_	-50201_	-51201_	-5H401_	-	1	2	
58	Countersunk screw M 5 x 45			863329						2	4	
59	Sleeve nut M 5			800287						2	4	
	Gear set PSK 200-Z			Backset								
60	Gear box		1	40 mm	716342						1	2
61	Screw M 5 x 10		2	45 mm	716359							

2

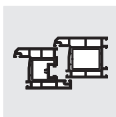
Element is lockable with a profile cylinder inside and outside (handle flat outside)

	Carton handle Si-line HSK/PSK 200-Z PZ inside				PMHC0020	-52401_	-50201_	-51201_	-5H401_	-	1	2	
51	Handle		1								1	2	
52	rose		1										
62	Cover cap PZ		1										
63	Square □10 x 168		1										
56	Grub screw M 6		1										
64	Handle Si-line PSK 200-Z PZ outside flat												PHAL0010
65	Countersunk screw M5			for sash thicknesses									
	countersunk screw M5 x 65			55-64	KDNA0080-10001_						2	4	
	countersunk screw M5 x 75			65-74	KDNA0100-10001_								
	countersunk screw M5 x 85			75-84	KDNA0120-10001_								
	Gear set PSK 200-Z				Backset								
60	Gear box		1	40 mm	716342						1	2	
61	Screw M 5 x 10		2	45 mm	716359								

3

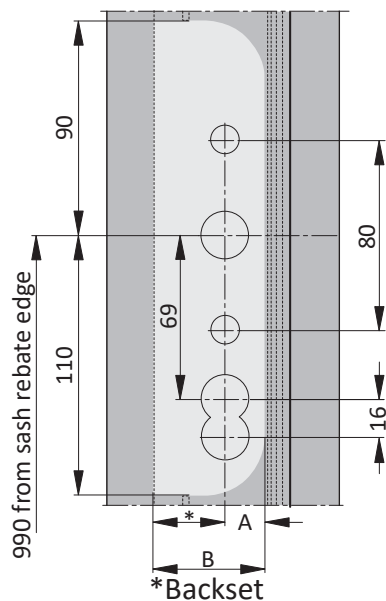
Element is lockable with a profile cylinder inside and outside (handle high outside)

	Carton handle Si-line HSK/PSK 200-Z PZ inside				PMHC0020	-52401_	-50201_	-51201_	-5H401_	-	1	2	
51	Handle		1								1	2	
52	rose		1										
62	Cover cap PZ		1										
63	Square □10 x 168		1										
56	Grub screw M 6		1										
	Carton handle Si-line PORTAL HS 300 PZ outside												PMHB0040
66	Handle										1	2	
67	rose												
68	Cover cap PZ												
65	Countersunk screw M5			for sash thicknesses									
	countersunk screw M5 x 65			55-64	KDNA0080-10001_						2	4	
	countersunk screw M5 x 75			65-74	KDNA0100-10001_								
	countersunk screw M5 x 85			75-84	KDNA0120-10001_								
	Gear set PSK 200-Z				Backset								
60	Gear box		1	40 mm	716342						1	2	
61	Screw M 5 x 10		2	45 mm	716359								

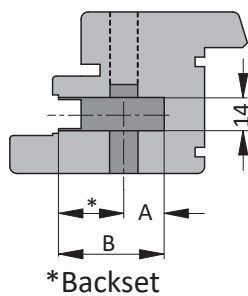


4.7 Milling groove gear box

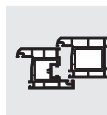
Sash rebate height min. 1460 mm



Ø 12 mm
Ø 20 mm with HSS bi-metal hole saw

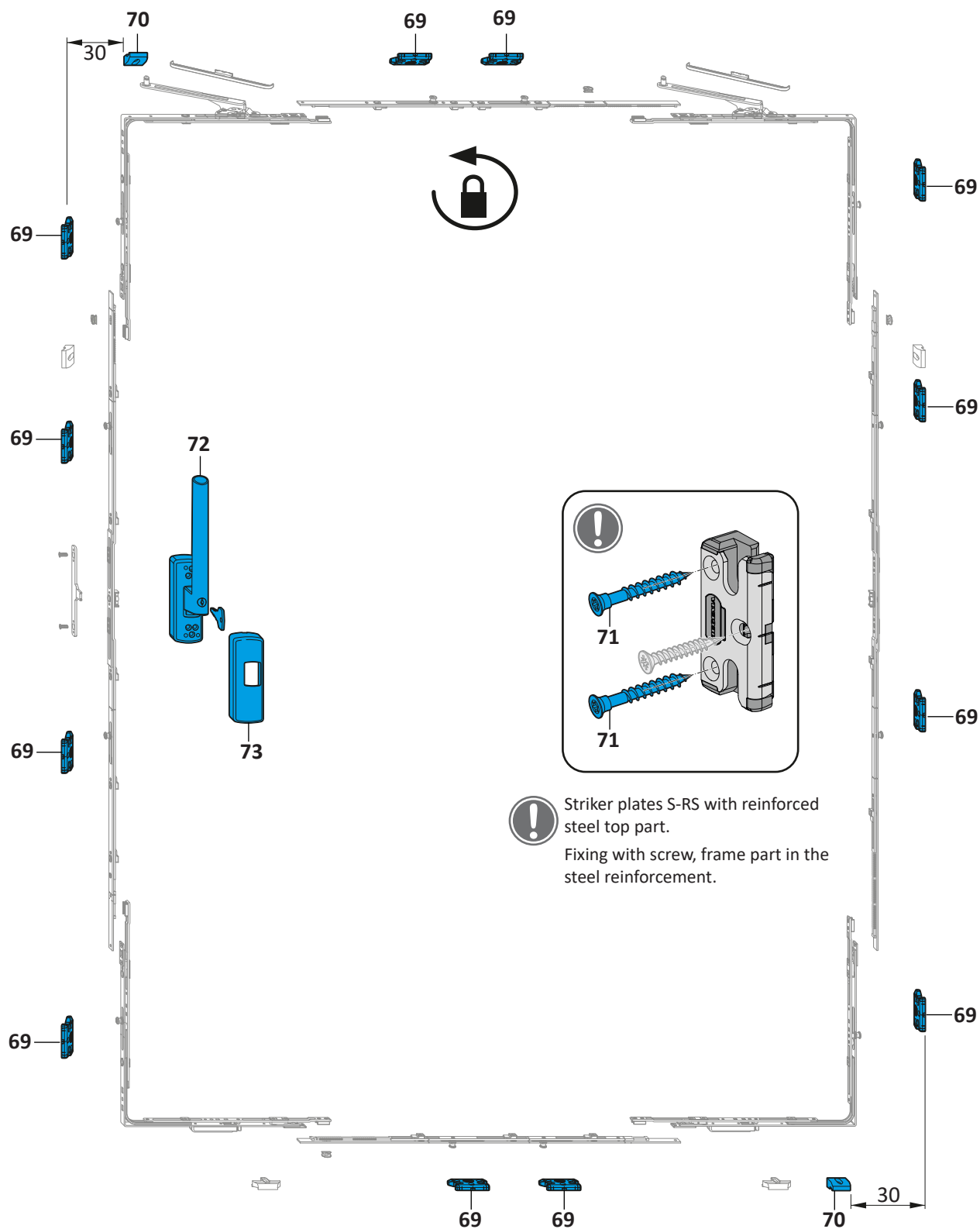


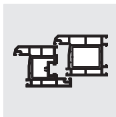
Dimensions for gear			
	Backset	A	B
PZ-30	30	16	46
PZ-40	40	16	56
PZ-45	45	16	61
PZ-50	50	16	66



5 Burglar resistance RC2

5.1 Hardware diagram RC2 central locking gear scheme A



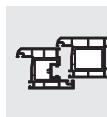


5.2 Hardware list RC2 for central locking gear scheme A

Item	piece scheme	Material description	Material number					
			Basis	add-ons for colour				
	A			silver	RAL 9003	RAL 8022	F9	old gold

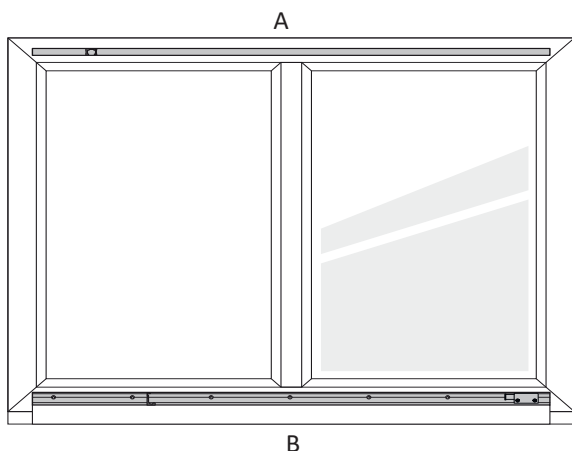
depending on profile system

69	4...	Striker plate S-RS with reinforced steel top part for comfort mushroom locking cam		see profile data sheet					
70	2	Distance piece PSK		see profile data sheet					
71	2...	Screw for frame part 5x40 (for PVC elements)	Carton with 500 piece	RS040-B0T00					
	2...	Screw for frame part 4x50 (for timber elements)	Carton with 500 piece	SASSZ1016					
	1	Handle PSK 200-Z/GH Si-line lockable consisting of:	RH LH	PHIL0041	-52401_	-50201_	-51201_	-5H401_	-5H001_
				PHIL0042	-52401_	-50201_	-51201_	-5H401_	-5H001_
72	1	Handle PSK 200-Z/GH Si-line lockable	RH/LH						
73	1	Cover cap	RH/LH						

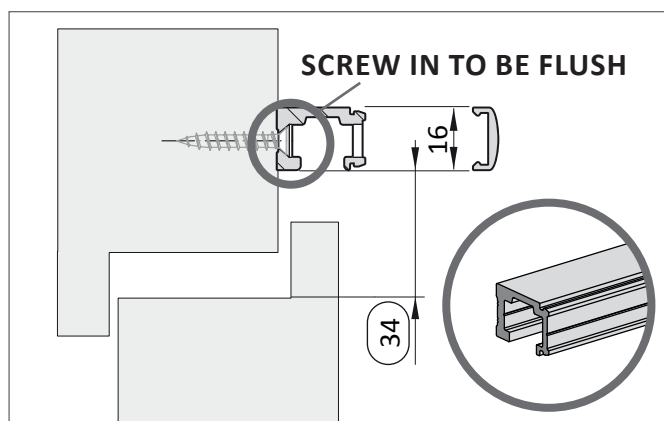


6 Assembly of hardware components

6.1 Installation of the running rail and guiding rail

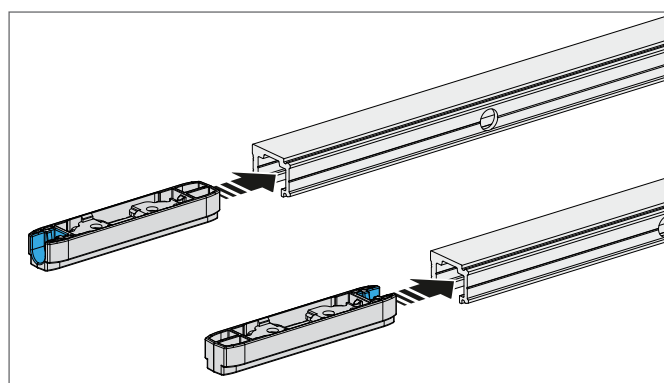


A	guiding rail
B	running rail



Position the guiding rail.
Observe the construction drawing related to the profile.

The screws must be screwed to be flush with the running rail. A projection is not permissible.



Push both sliders into the guiding rail.

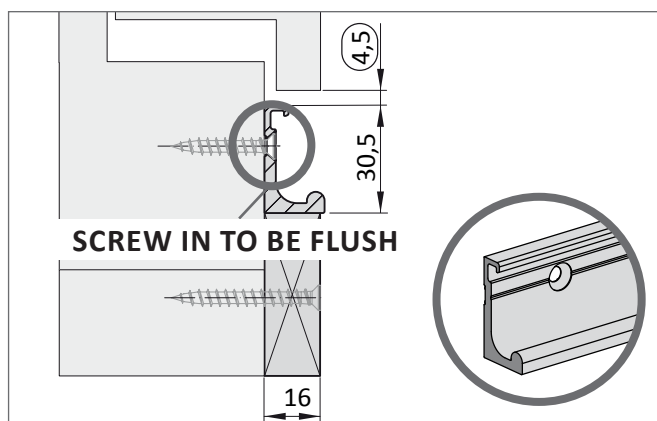
⚠ DANGER

Danger to life due to sliding sashes falling out.

Wrong position of the guiding and running rail.

- Adhere to the positioning dimensions.

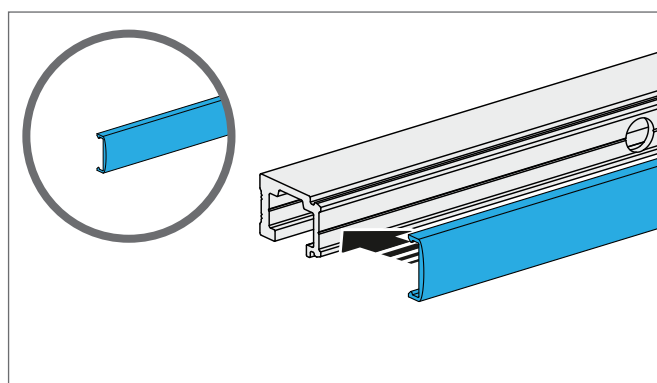
! The construction drawing related to the profile must be observed for correct assembly of the guiding and running rail.



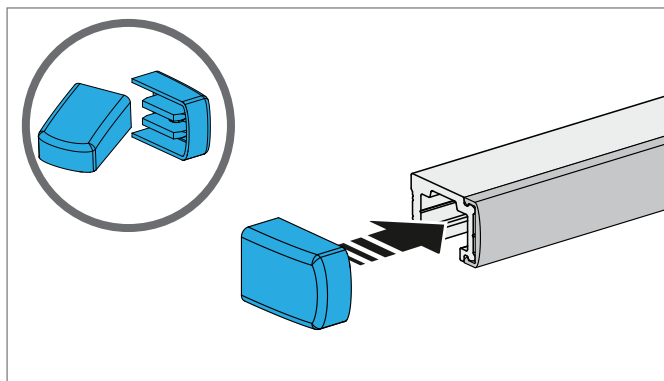
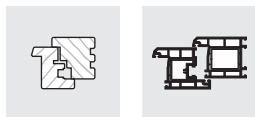
Position the running rail. Observe the construction drawing related to the profile.

Attach load-bearing, end-to-end running rail support when assembling the hardware.

The screws must be screwed to be flush with the running rail. A projection is not permissible.

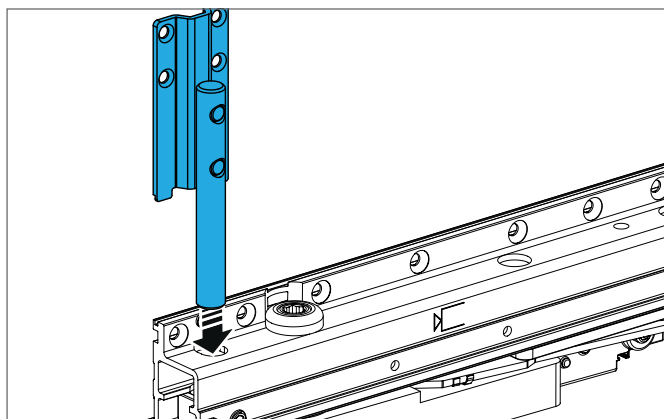


Shorten the cover rail F to the required length and clip onto the guiding rail.

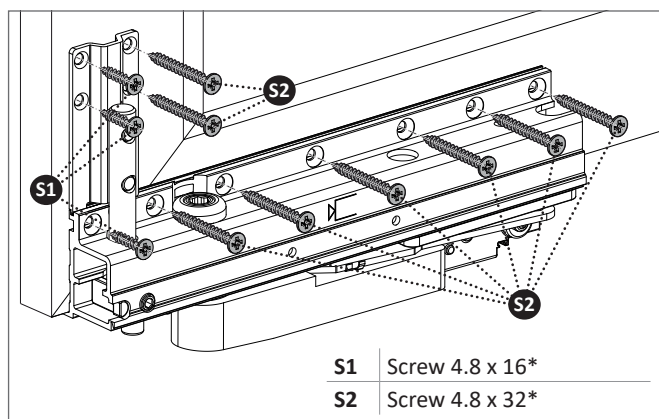


Attach a cover cap F to each end of the guiding rail.

6.2 Installing the bogie wheels

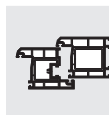


Push supporting part into bogie wheels V and H.

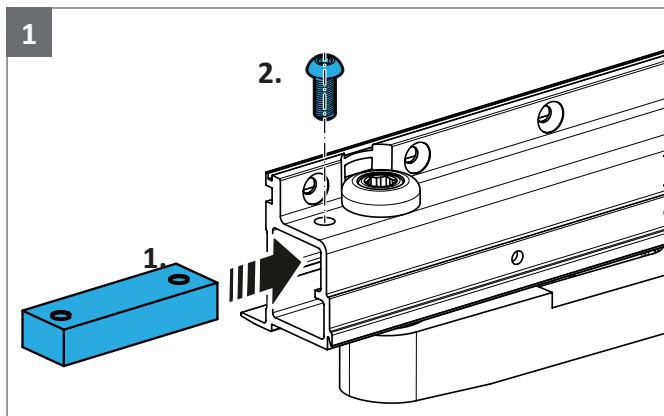


Screw both bogie wheels tightly onto sliding sash according to their position.

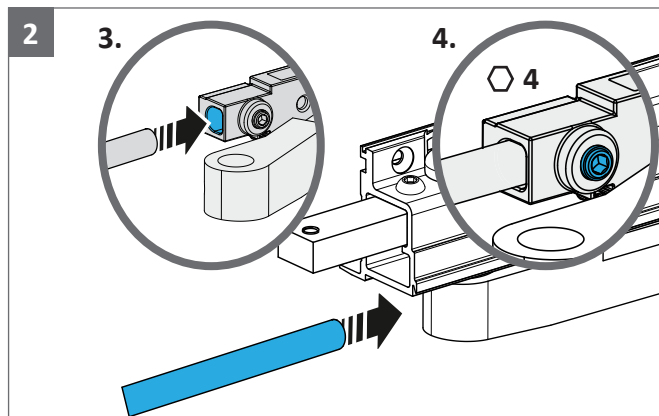
*Screw length dependent on profile



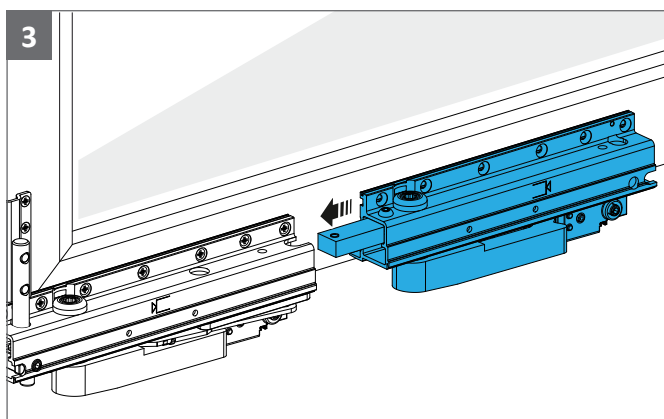
6.2.1 Installation of the bogie wheels M



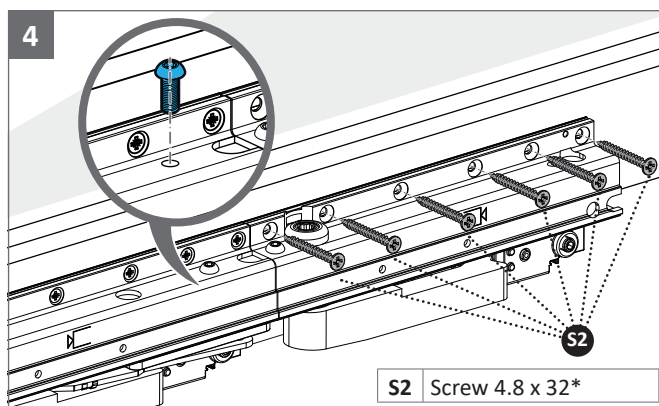
Push the connecting piece into bogie wheels M (1.) and fix with pan-head screw (2.).



Insert connecting rod M into bogie wheels M (3.) and fix with head cap screw (4.). Torque 10-11 Nm.



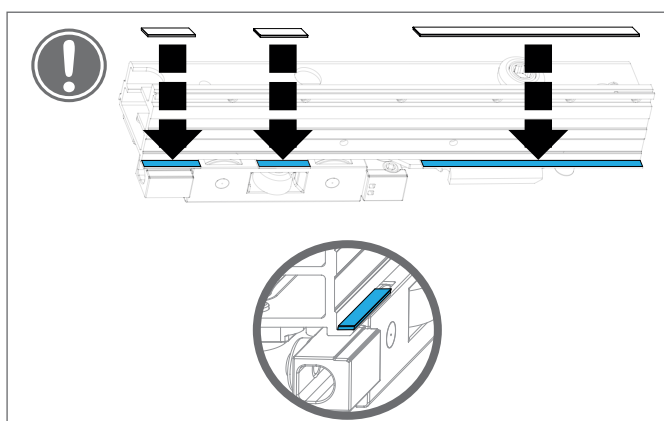
Push the respective bogie wheels M into bogie wheels V and H.



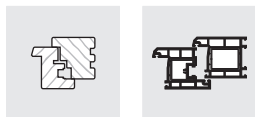
Fix bogie wheels M to bogie wheels V and H with pan-head screw.

Screw bogie wheels M tightly onto sliding sash.

*Screw length dependent on profile

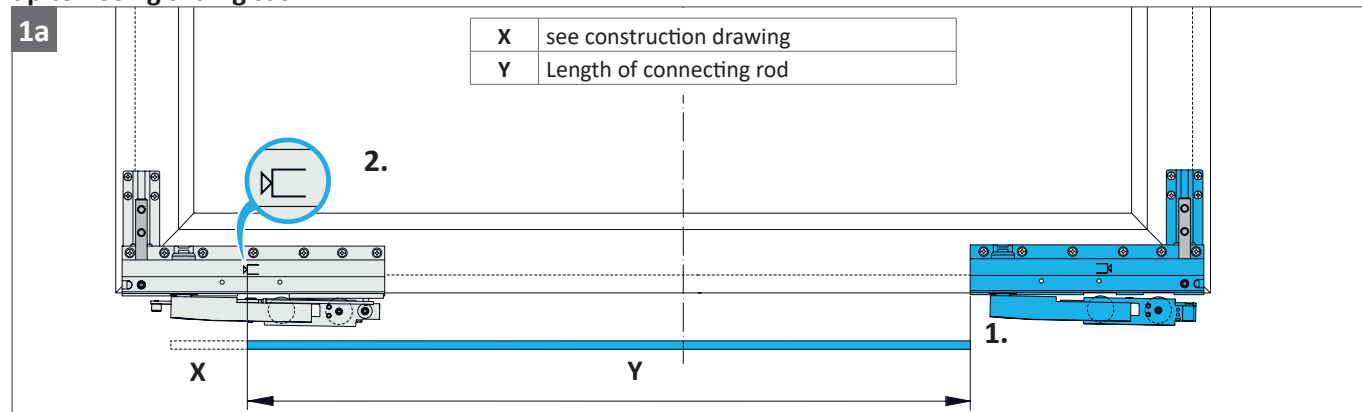


According to the profile system, the optional distance plates must be used.

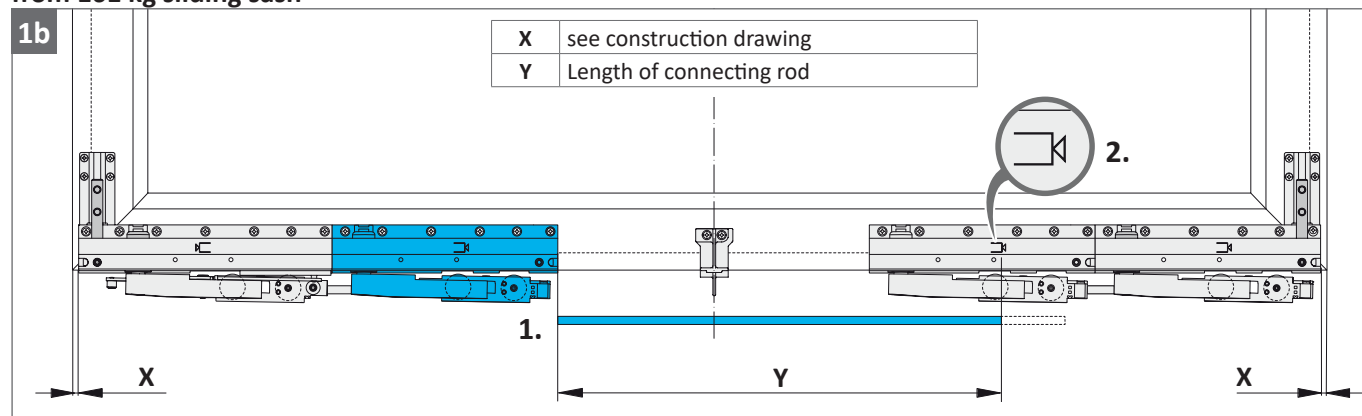


6.3 Installing the connecting rod

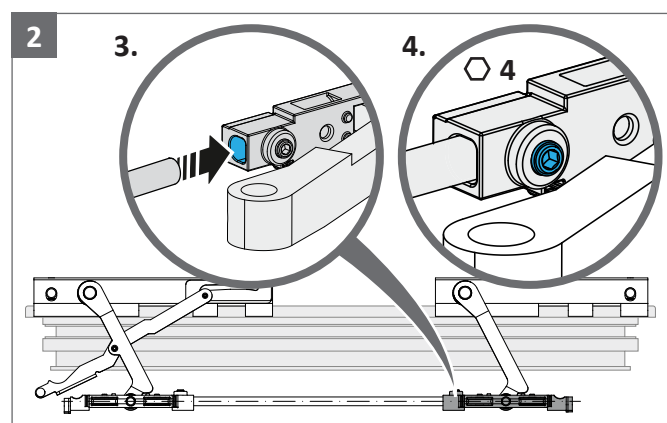
up to 160 kg sliding sash



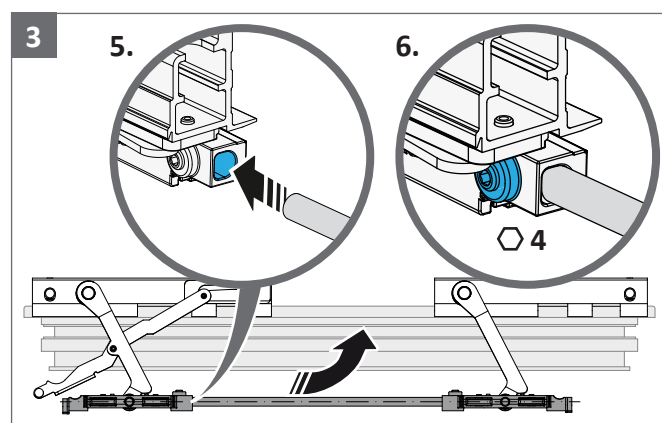
from 161 kg sliding sash



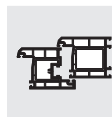
Place connecting rod on the H bogie wheels (1.). Transfer the crop indication on the cropping mark of bogie wheels V, to the connecting rod (2.) and crop the connecting rod.



Insert connecting rod into H bogie wheels (3.) and fix with head cap screw (4.). Torque 10-11 Nm.



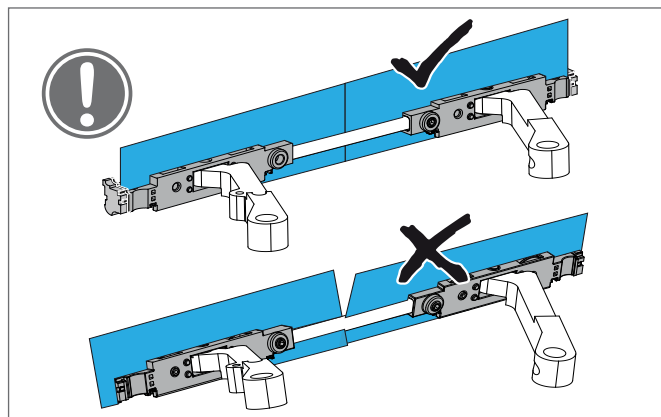
Insert connecting rod into bogie wheels (5.). Bring the bogie wheels housing with connecting rod into the closed position. Now fix the connecting rod with a head cap screw (6.). Torque 10-11 Nm.



4

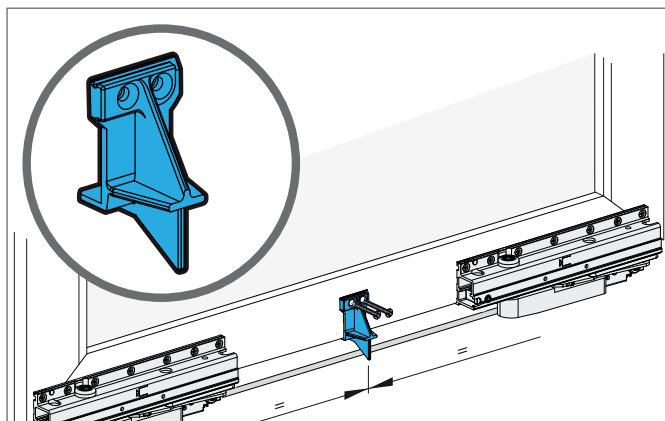


The bogie wheels housing must be standing parallel in the closed position.



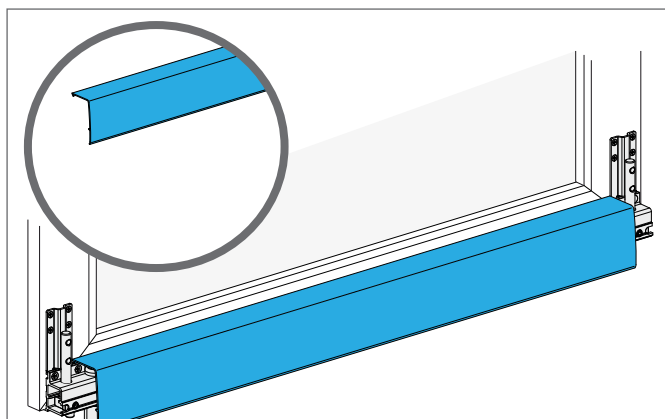
After the fixation of the connecting rod, the bogie wheels housing must align with each other.

6.4 Installation of the supporting piece L

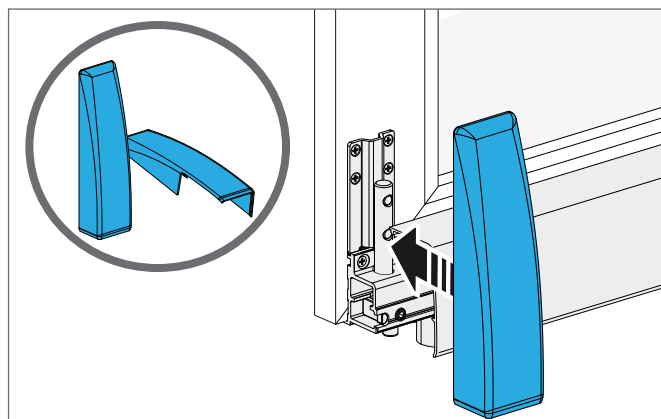


Position supporting piece L for cover rail L centrally and screw into place with 4.8 x 35 screws

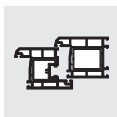
6.5 Mounting the bogie wheels cover



After the sliding sash has been inserted into the frame, attach the cover rail L.



Attach the cover caps L to the respective bogie wheels.

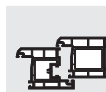


7 Profile sections

7.1 SI construction drawings

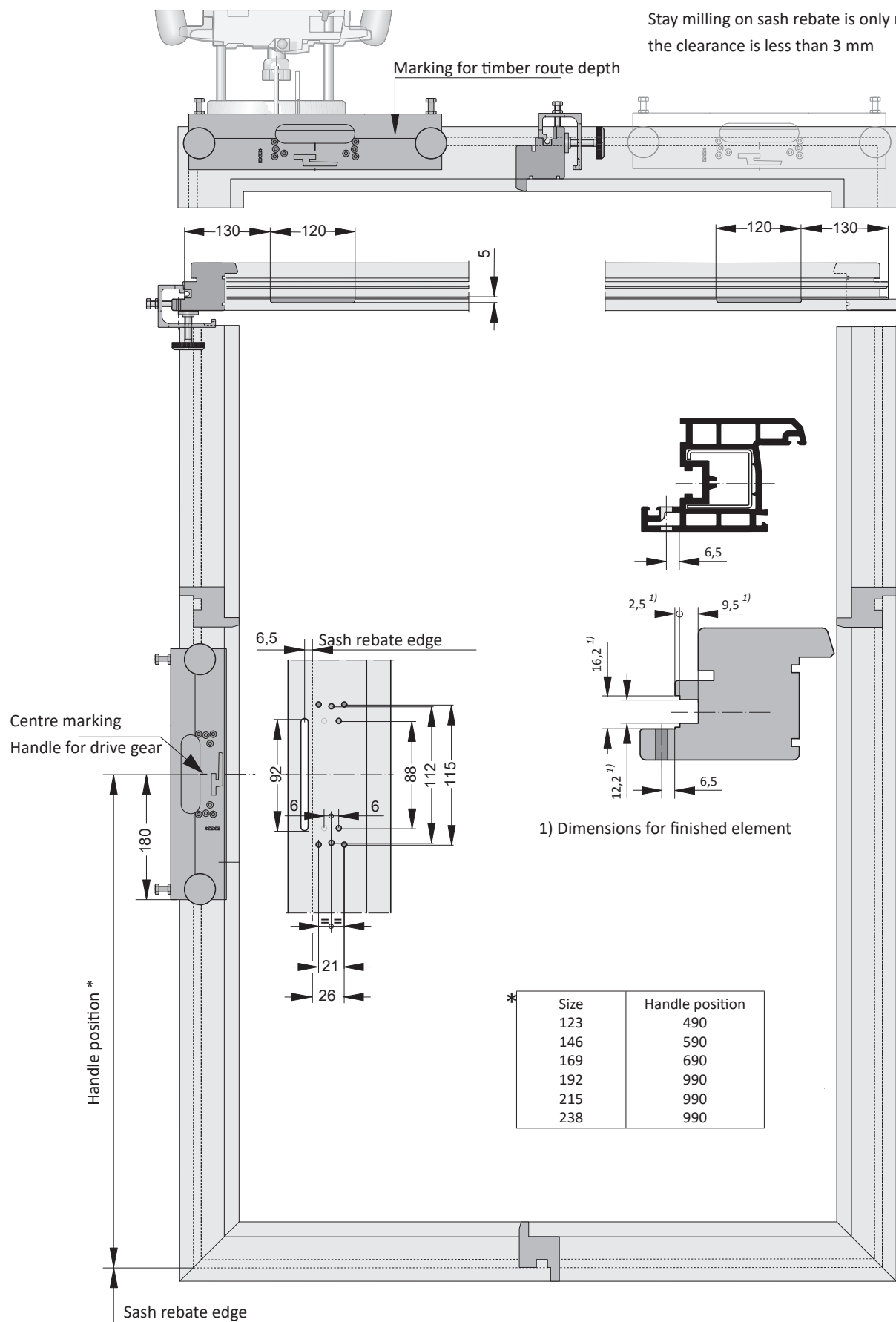
The dimensions of the SI construction drawings must be observed for the correct positioning of the holes and components on the profile.

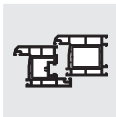
You can obtain SI construction drawings from your field sales representative on request.



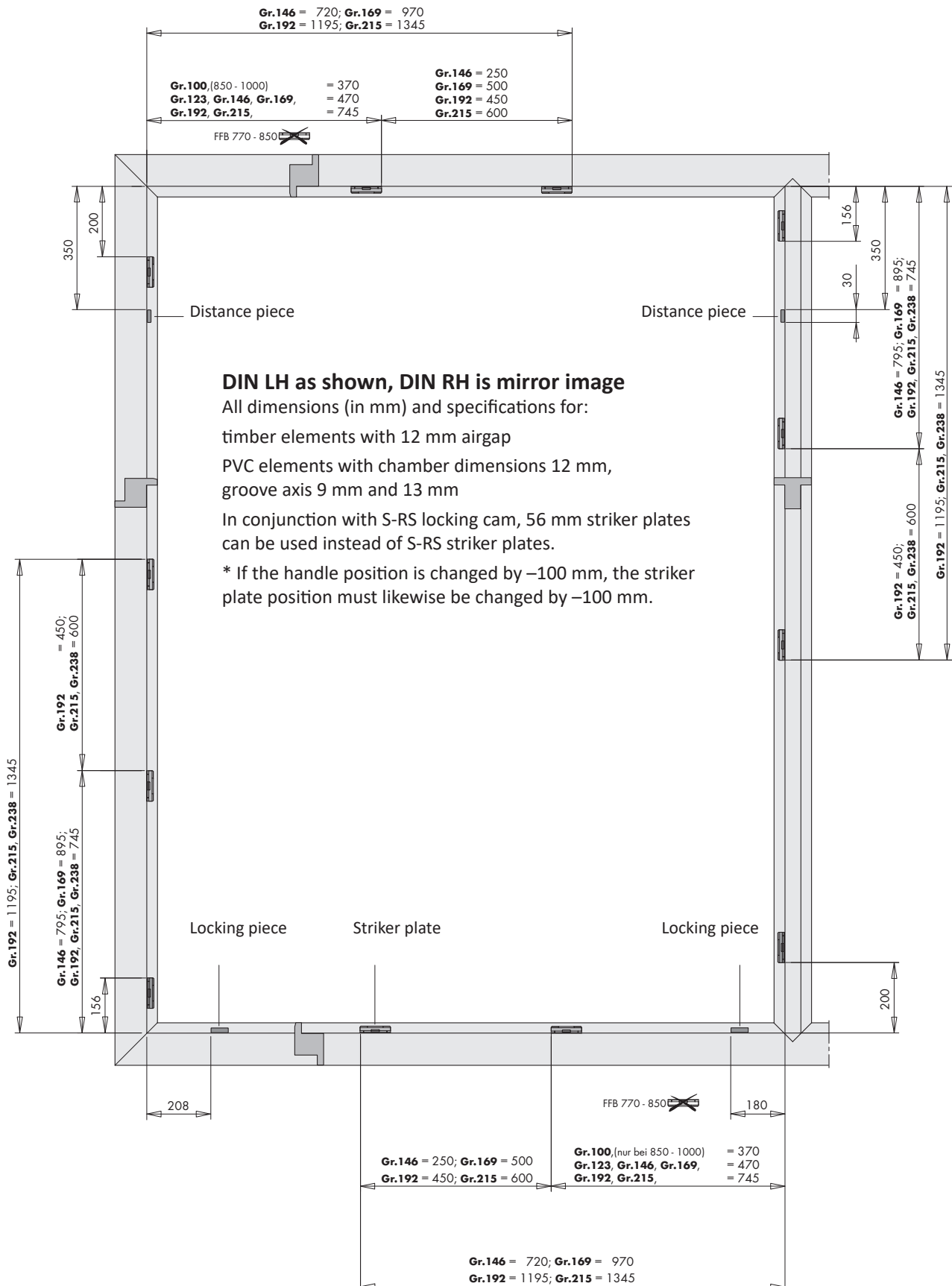
8 Preparation of sliding sash

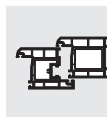
Stay milling on sash rebate is only necessary when the clearance is less than 3 mm



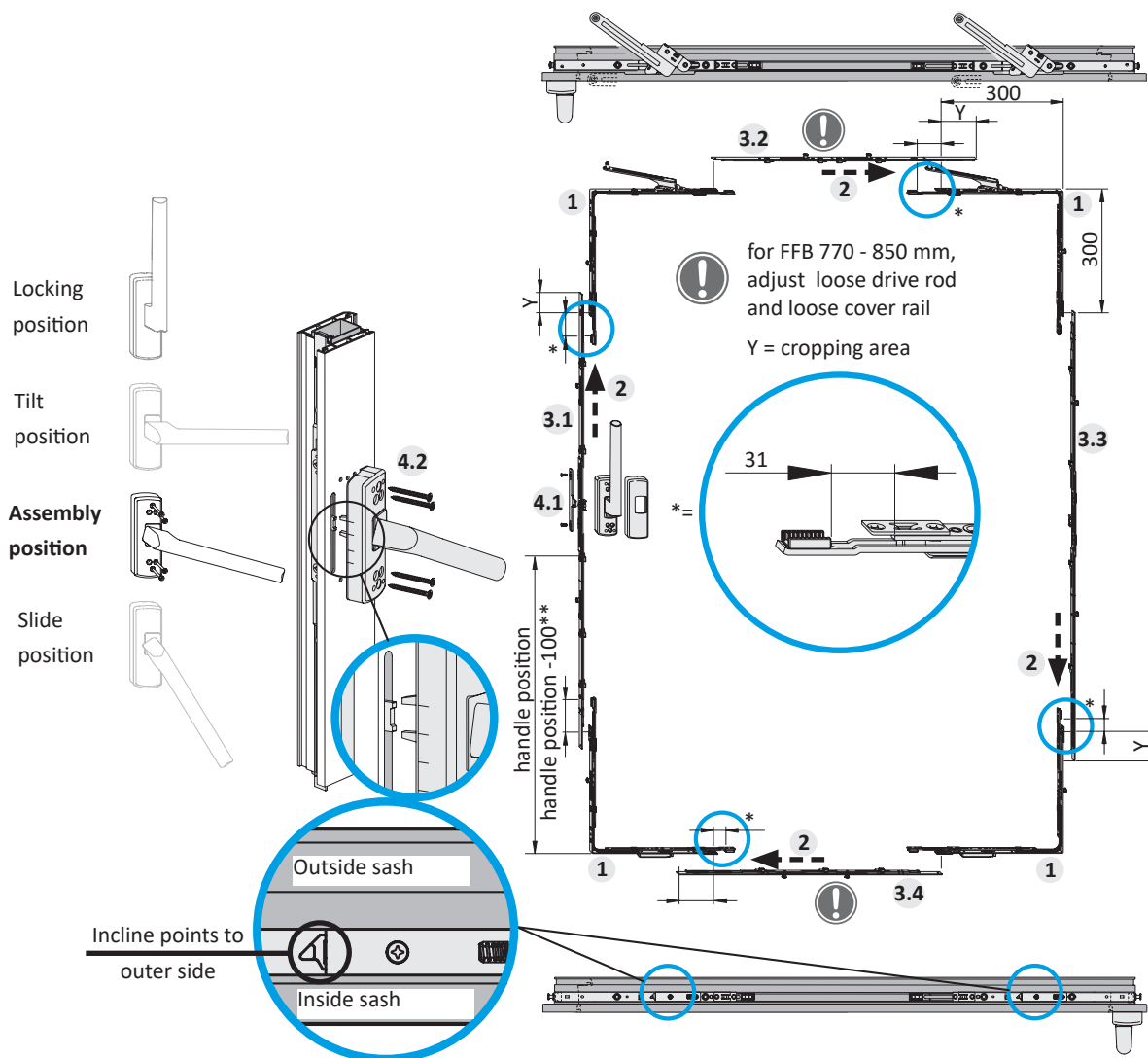


9 Frame part positions



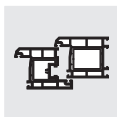


10 Installation of central locking gear



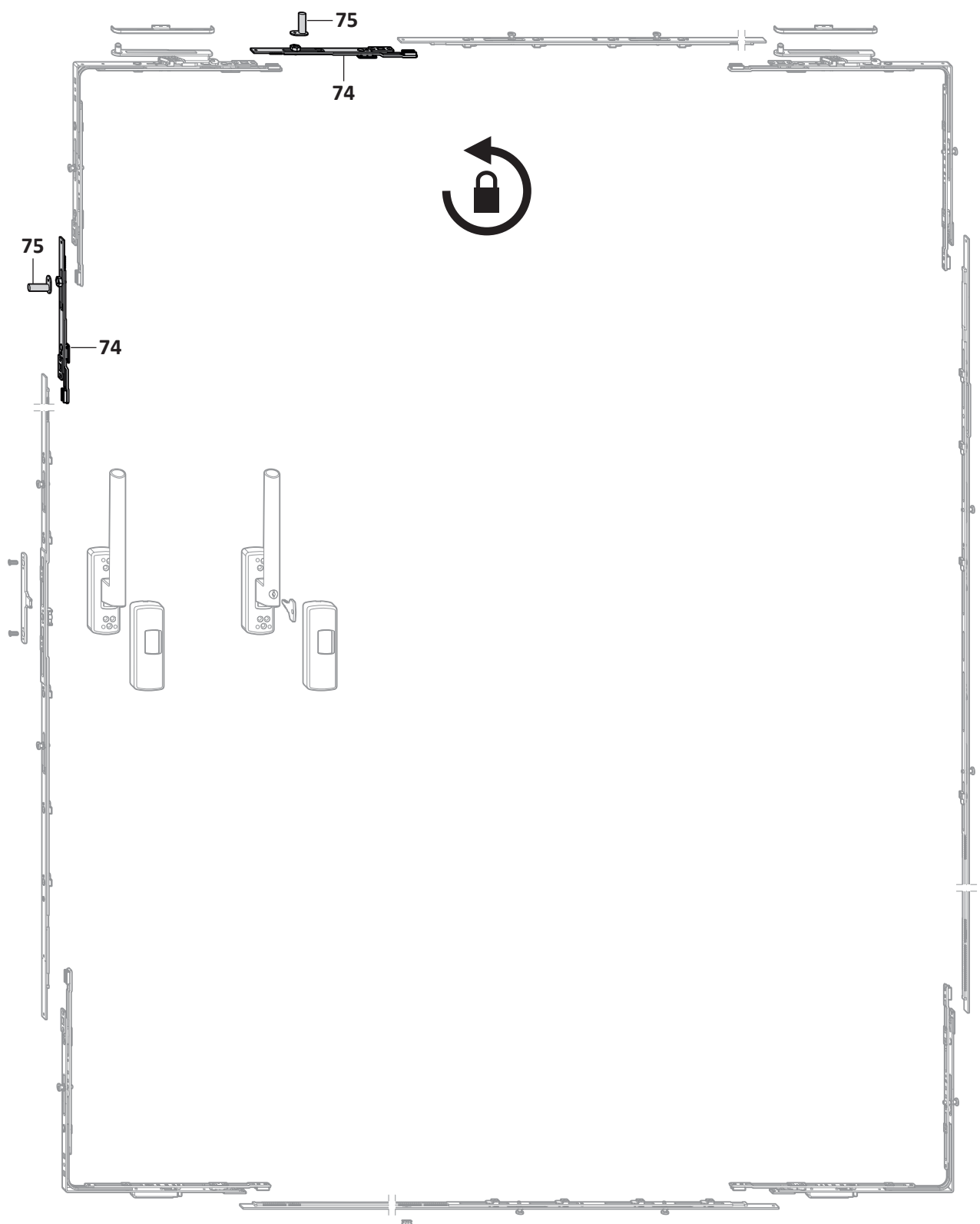
** If the handle position is changed by -100 mm, the striker plate position must likewise be changed by -100 mm.
The size range of the gear OS is also reduced by -100 mm.

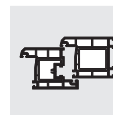
- 1 Insert corner drives VSU, BSU, VSO and BSO correctly into the eurogroove and screw into place. Release seal in the area of the stay arm.
 - 2 Push each drive rod of the corner drives into the respective installation position, as far as stop (refer to )
 - 3 Insert the OS gear and the linkages in the eurogroove, mark, crop at one side and install in this sequence: begin with the OS gear (3.1) and couple the top linkage (3.2) in such a way that the stay arms of VSO and BSO tighten in parallel. On the stays, observe the marking on the cover rail (see figure). Then insert gear OS (3.3) and linkage (3.4) transversally at the bottom and screw into place.
 - 4.1: engage the coupling bracket with the cam on the OS gear and screw in place with M5 x 10 countersunk screws.
 - 4.2: insert the PSK 200-Z/GH Si-line handle into the installation position (see figure) and screw into place with 4 screws 5x50. Place PSK 200-Z/GH Si-line handle in the locking position in order to shear the fixation of the long components.
- Attach the PSK 200-Z/GH Si-line cover caps to the stay arms.



11 Locking monitoring system UMS

11.1 Possible installation positions



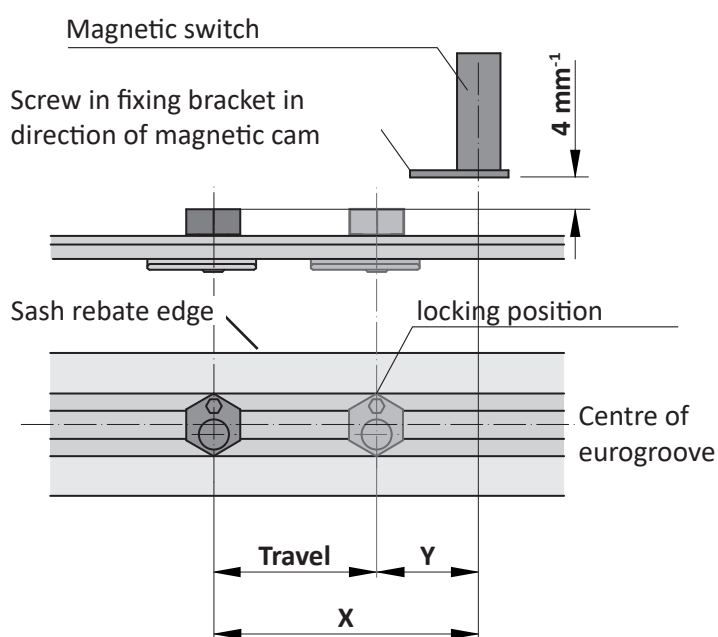


11.2 Hardware components locking monitoring system

Item	Material description	Material number	piece scheme	
			A	C
74	Linkage UE sz.23 MV	716519	1	2
75	Magnetic switch UMS	see product range AEROCONTROL	1	2

11.3 Assembly of locking monitoring system

11.3.1 Positioning the magnetic switch and magnetic cam

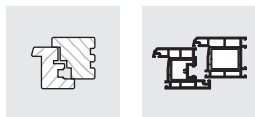


Hardware travel for calculating offset in turning position

$$\text{Offset } X = \text{travel} + Y$$

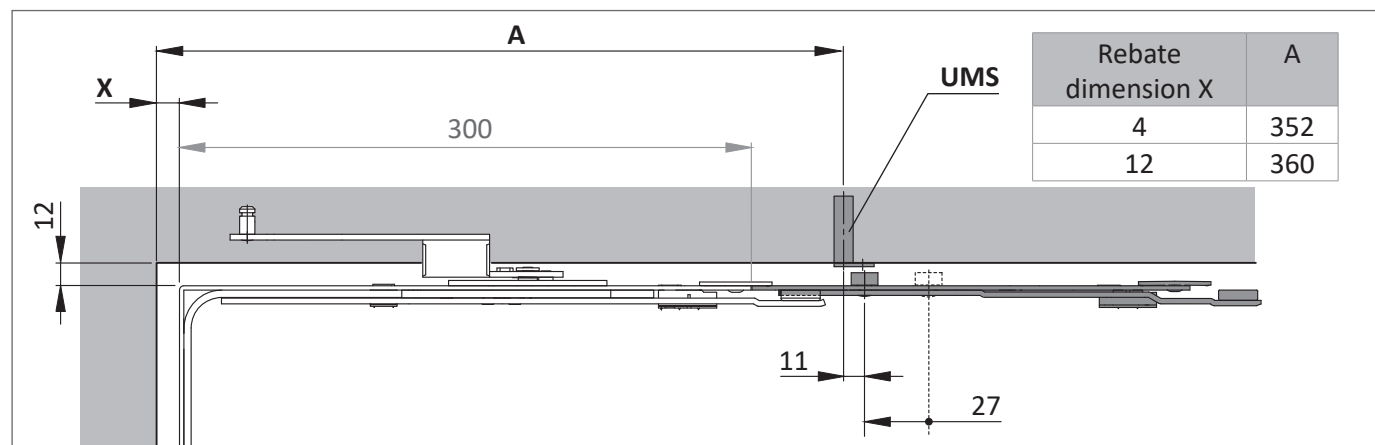
Magnetic switch distance in locking position

Magnetic switch	Dimension Y
UMS001	11 mm $\pm$ 1
UMS002	11 mm $\pm$ 1
UMS003	11 mm + 2
Hardware range	Travel
FAVORIT	16 mm
TITAN iP	18 mm
TITAN AF	18 mm
PORTAL PSK 200 Z Plus	56 mm



11.3.2 Assembly position – Magnetic switch types UMS:

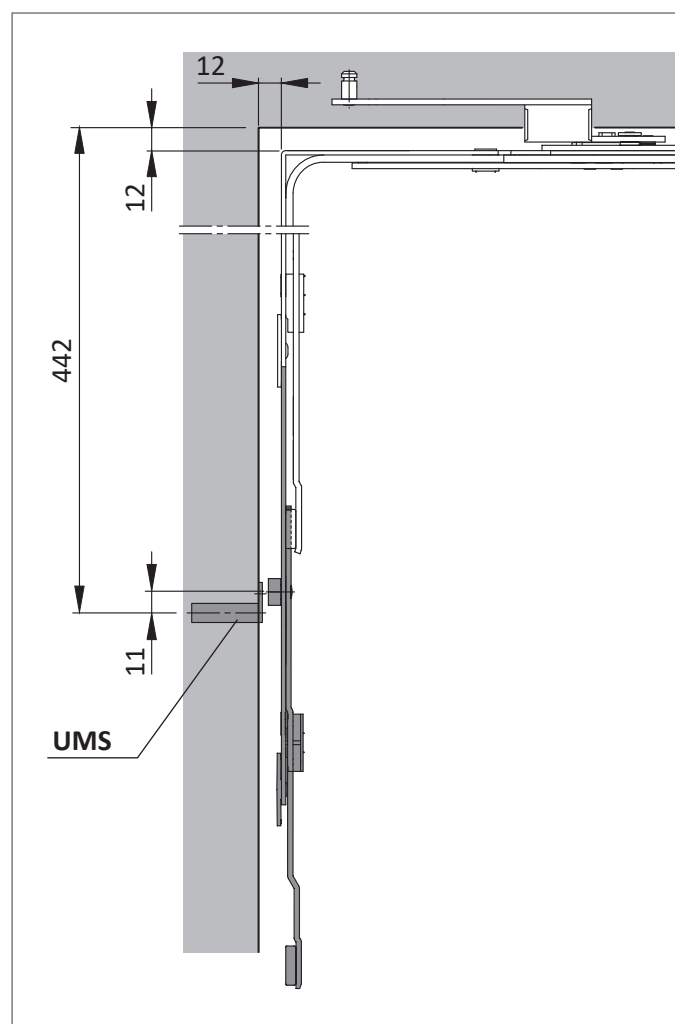
- for FFB 1000 - 2000 top horizontal installation



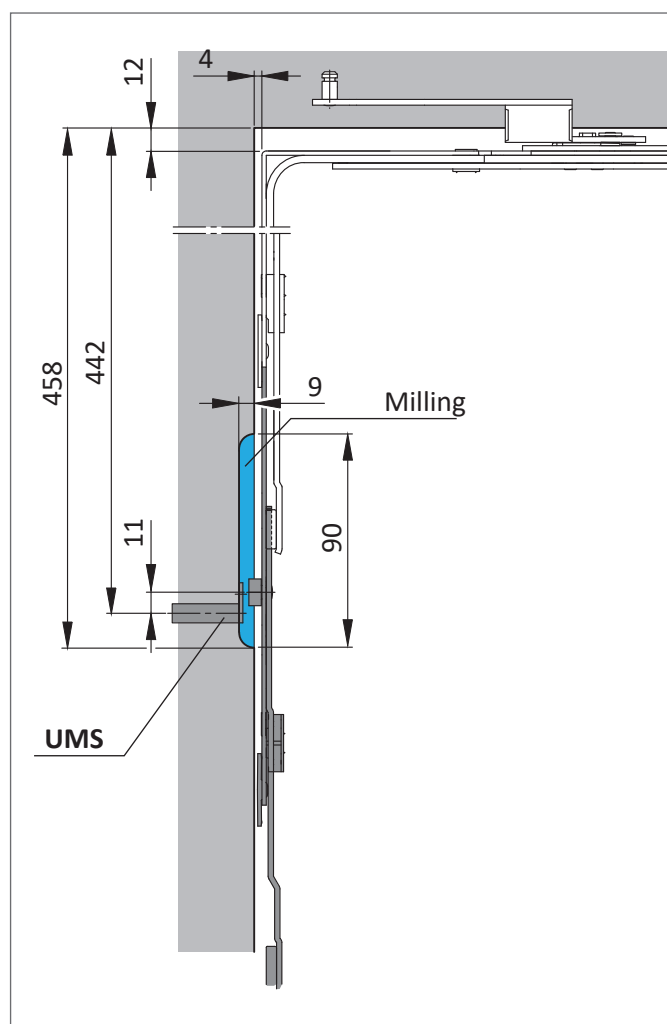
1. Release assembly fixation on linkage UE.
2. Slide magnet bolt 27 mm.
3. Couple linkage UE with the corner drive.

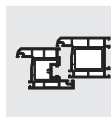
- for FFB 770 - 1000 – vertical installation on the locking side

Rebate dimension 12 mm



Rebate dimension 4 mm





12 Completion of element

12.1 Inserting the sliding sash into the frame

- Switch handle into sliding position. Position the window sash on the running rail at an incline and snap the coupling bolt of the stay arms into the slider.
- Check that all hardware components work. Use the adjustments if necessary. (SW 4)

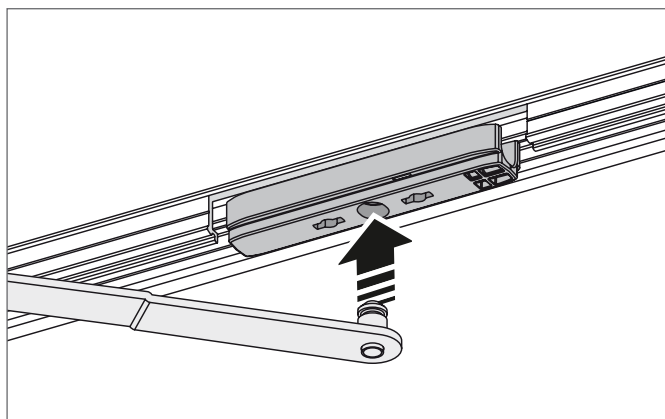
12.2 Insert the sliding sash and connect with frame

⚠ DANGER

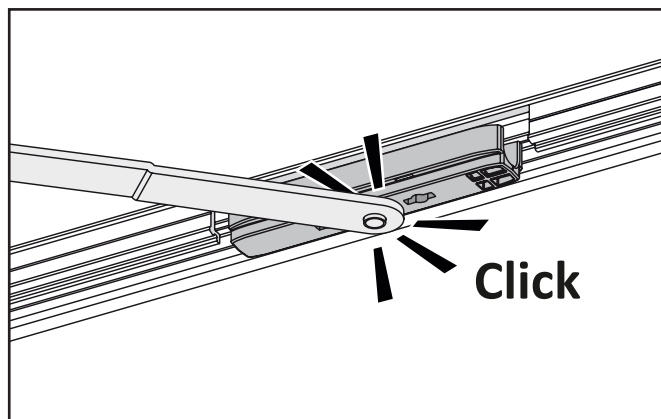
Danger to life due to sliding sashes falling out.

Stay arm has not engaged.

- Confirm that the coupling bolt is engaged in the slider by pulling on the stay arm.



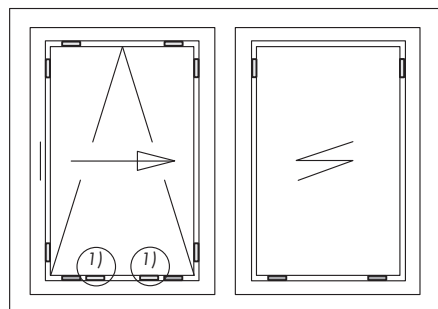
Place stay arms of tilt stay into tilt position. Position the sash on the running rail at an incline and insert the coupling bolt of the stay arms into the slider.



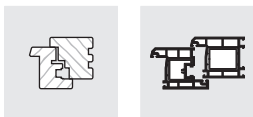
Snap in stay arms of tilt stay into slider. Check firm seating by pulling briefly.

12.3 Notes for block setting the bogie wheels M

- Use elastic distance block¹⁾ (hardness approx. 60-80 Shore), e.g. Universal block from Gluske in the M bogie wheels area.



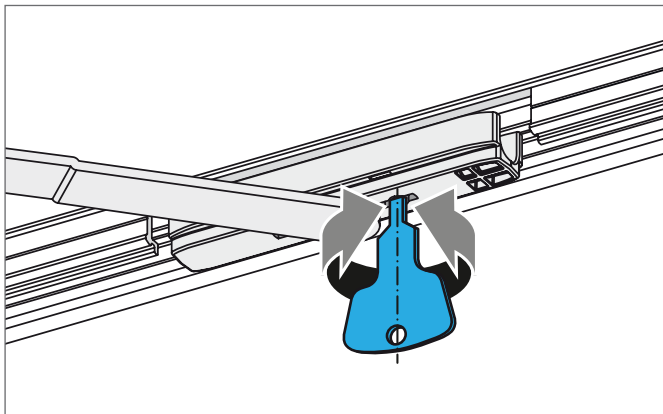
■ Bearing blocks
□ Distance blocks



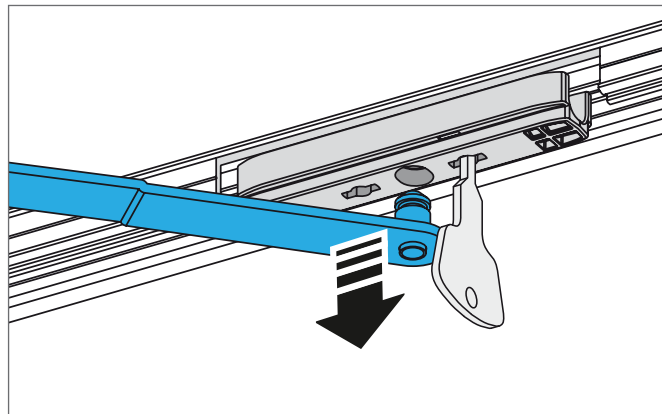
12.4 Releasing and removing the sliding sash from the frame



Only the PORTAL key may be used to release the stay arms in the slider, if other tools are used, there is a danger of damaging the slider.



Place stay arms of tilt stay into tilt position. Release stay arms from the slider using the PORTAL key.



Lift off the stay arms.

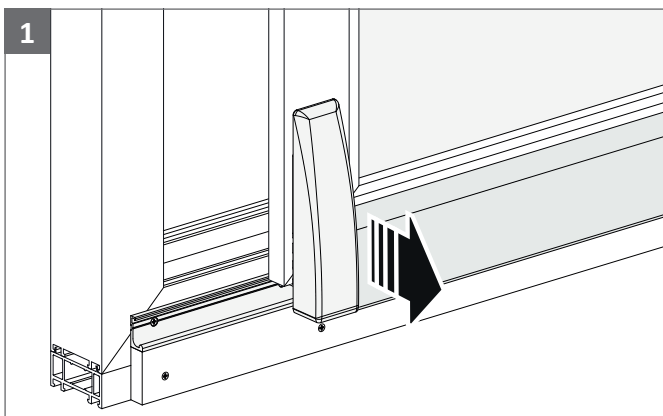
12.5 Installing the bogie wheels safeguards

⚠ DANGER

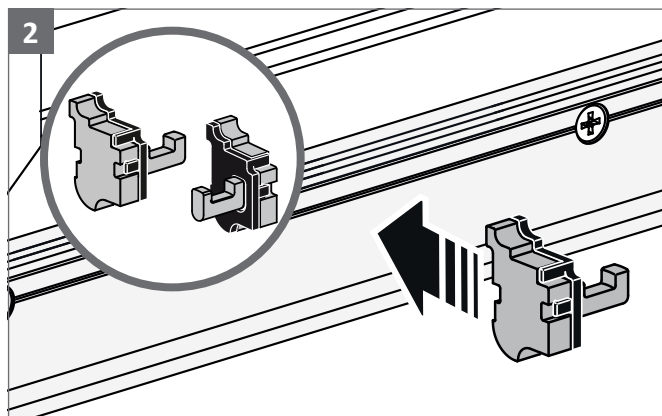
Danger to life due to sliding sashes falling out.

Not mounted bogie wheels safeguards.

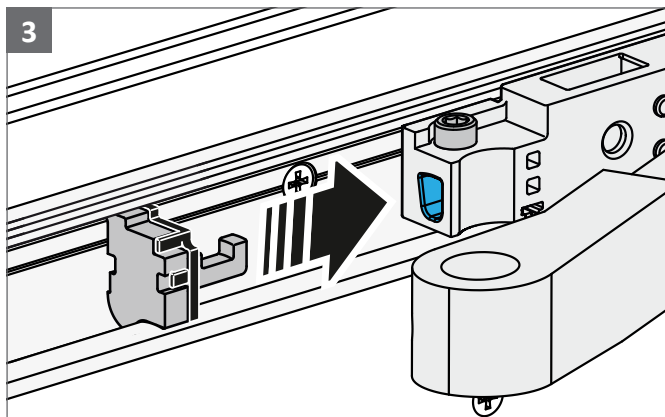
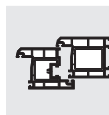
- The bogie wheels safeguards must be correctly installed in both bogie wheels of a sliding sash.



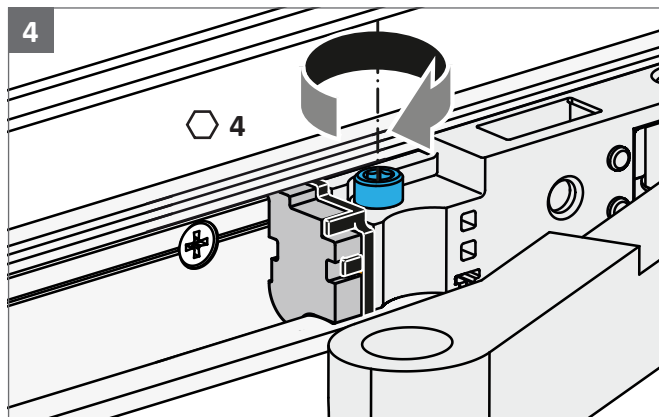
The bogie wheels safeguards can only be installed in a parallel positioned sash.



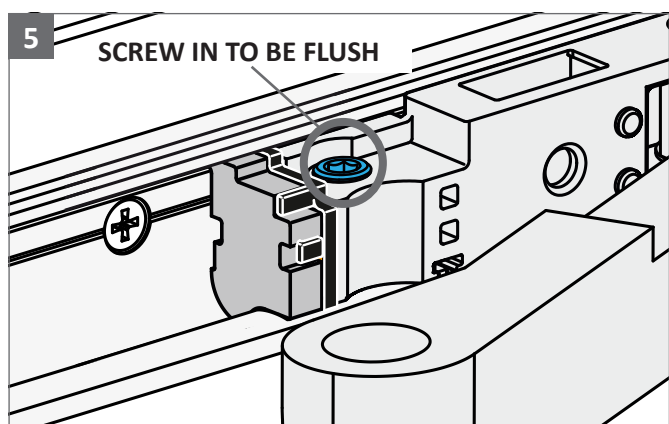
Position the relevant version (RH or LH) of the bogie wheels safeguards in the running rail.



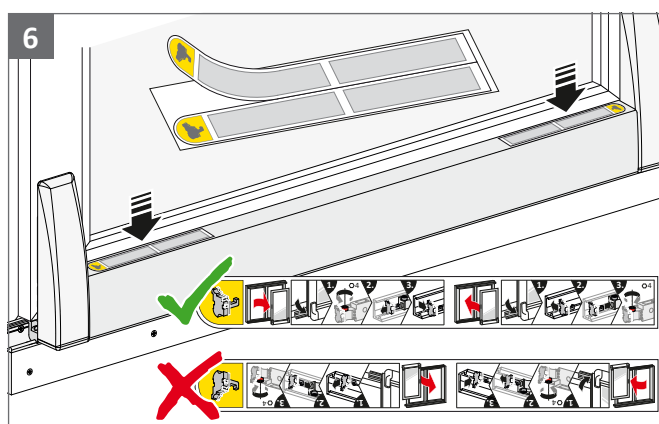
Push bogie wheels safeguards into bogie wheels V and H.



Fix the bogie wheels safeguards in the bogie wheels with a locking screw.



The locking screw must be completely countersunk. Do not overtighten the locking screw, torque max. 3 Nm.

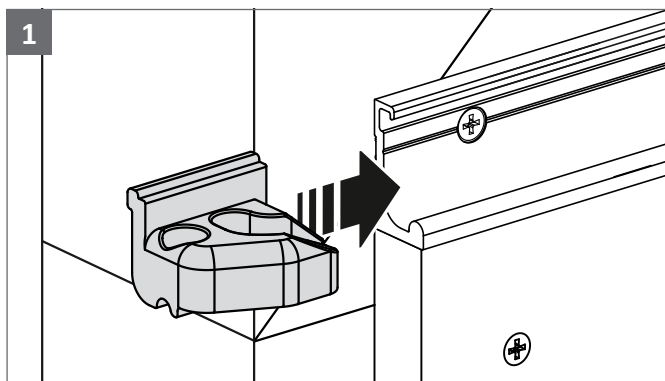


Glue the notes sticker to the protective foil of the cover rail L. Pay attention to correct adjustment of the sticker.

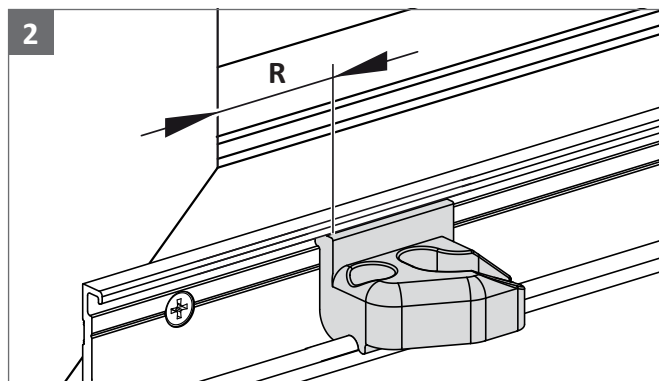
12.6 Removing the bogie wheels safeguards

The removal of the bogie wheels safeguards is carried out in reverse sequence to the installation.

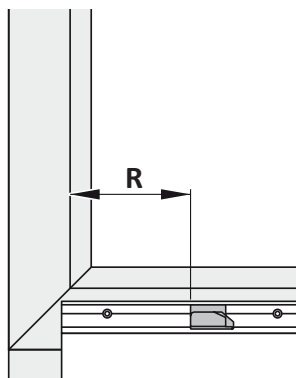
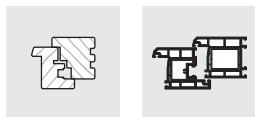
12.7 Positioning the trigger



Slide the trigger sideways into the running rail.



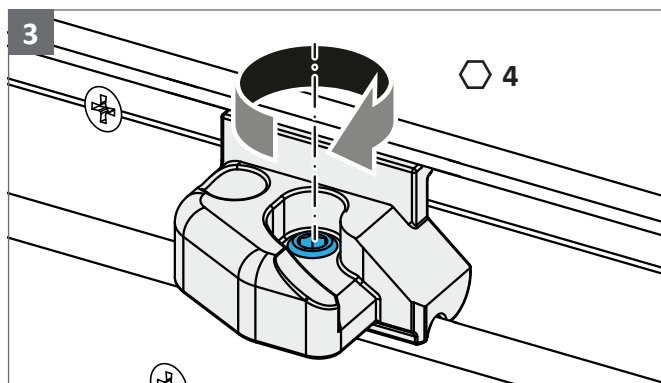
Position the trigger according to the profile.



Rebate width	R
18	16
19	15
20	14
21	13
22	12

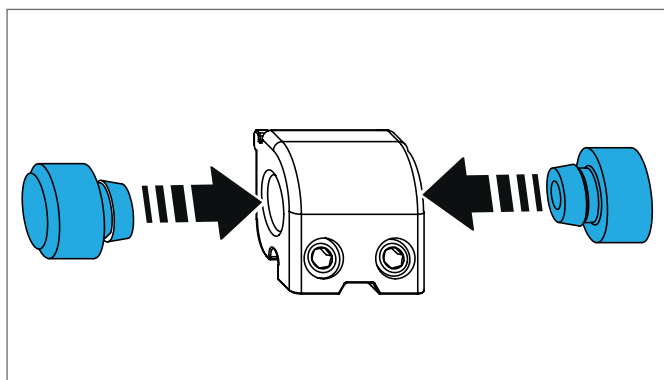
Dimension R is designed to the position of bogie wheels V.

If the position of bogie wheels V is changed, the position of the trigger must be adapted accordingly.

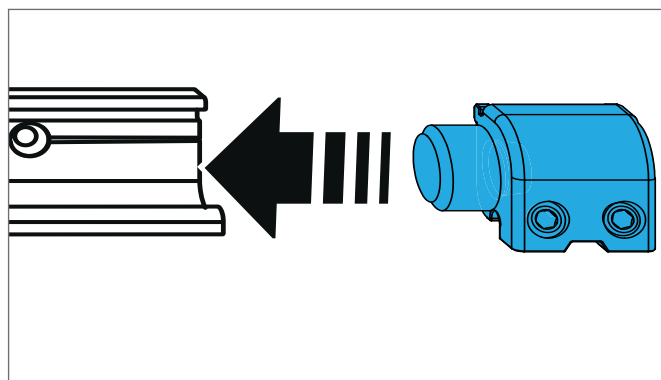


Fix trigger position with head cap screw. Torque max. 3 Nm.

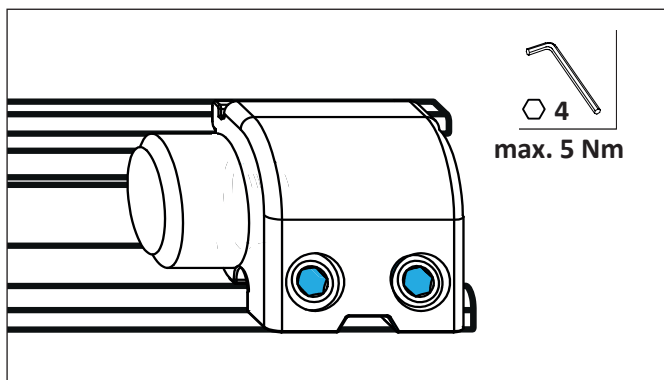
12.8 Positioning the stop



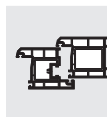
Assemble the stop according to the required DIN direction.



Slide the stop sideways into the running rail.



Fix stop into the running rail with Allen key SW 4.
Final positioning only after the sliding sash has been installed. Torque max. 5 Nm. The screws must be fixed at alternating sides to obtain an even torque.

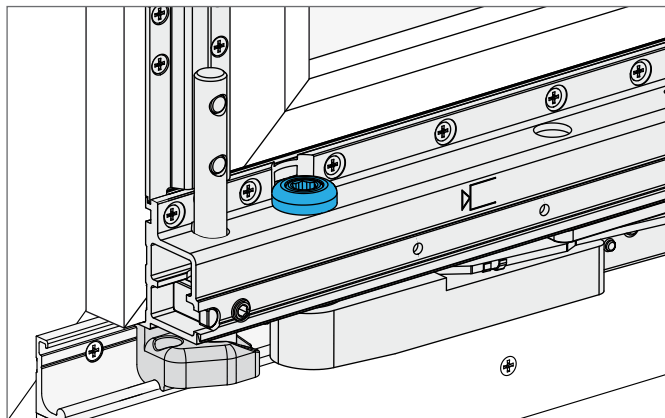


13 Adjustment

13.1 Elevating adjustment of the bogie wheels

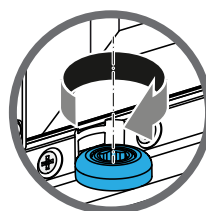
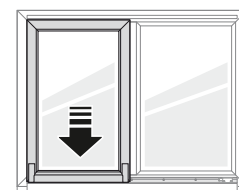
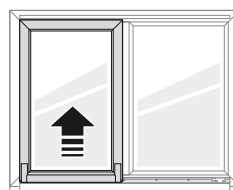
Precision adjustment of the sash to the frame can be accomplished with the elevating adjustment of bogie wheels V and H.

 Carry out adjustment following installation of the element in the object. Always adjust both bogie wheels.

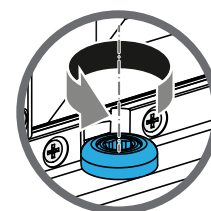


Elevating adjustment on the bogie wheels with Allen key SW 8.

Default setting in minimum position (0 mm)



8

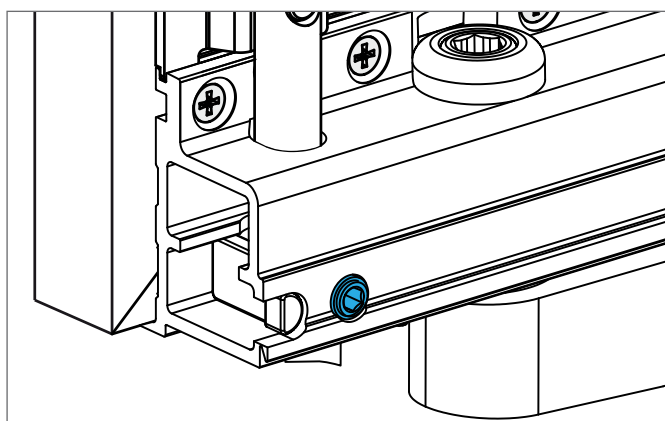


The maximum adjustment range must not be exceeded. One rotation is equivalent to 1 mm height adjustment.
Maximum adjustment: 4 mm

13.2 Adjustment of the tilt angle of the bogie wheels

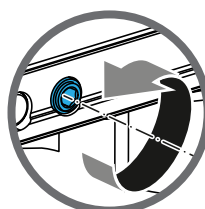
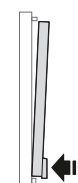
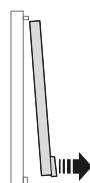
Precision adjustment of the sash to the frame can be accomplished with the tilt adjustment of bogie wheels V and H.

 Carry out adjustment following installation of the element in the object. Always adjust both bogie wheels.

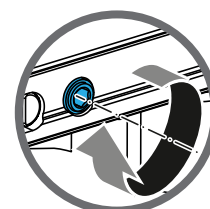


Tilt adjustment on the bogie wheels with Allen key SW 4.

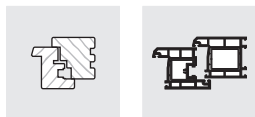
Default setting in minimum position (0 mm).



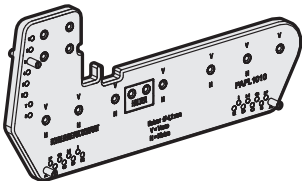
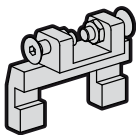
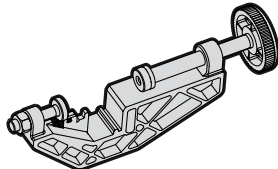
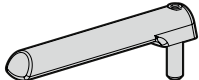
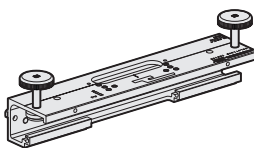
4



Adjustment track max. 2 rotations from minimum position.



14 Jigs

	Material description	Tools	Material number
	PSK Comfort jig		PAFL1010-09601_
	for bogie wheels		
	PSK COMFORT jig locking part		PAEL1010-00001_
	for locking parts		
	PSK Comfort clamping jig		PALJ0110-02101_
	for running and guiding rail		
	PSK EB 640/4 jig		143001
	for drill centring in fixing holes on guiding and running rails	Drill: Ø 3 mm	
	Combi jig EB 643-3/-7 groove axis 9 mm (timber and PVC) groove axis 13 mm (PVC only)		158036
	Combi jig EB 643-3/-7 -13 groove axis 13 mm (timber)		PALL0020-5H901_
	Combi jig EB 643-3/-7 -13 C35 for rebate thickness from 19 mm		PALL0030-5H901_
	For fixing drill holes for handle and milling, handle and tilt stays	Milling cutter: Ø 6 or 8 mm Spacer disc: Ø 27 mm Drill: Ø 4.2 mm	

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