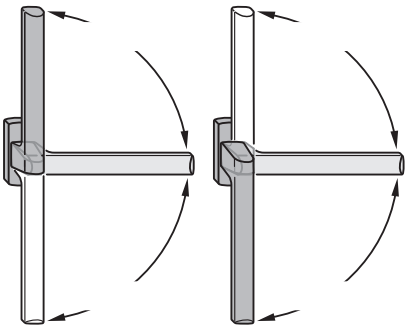
PSK PORTAL 160 PLUS *Surface TS*

Parallel tilt and slide hardware
for timber elements with 12 mm airgap, standard operating sequence

... with these decisive advantages:

- Basic security = Standard
- Total outer frame to sash clearance 122 mm
- Simple logical stop
- Operating sequence = standard, other operating sequences possible
- also for thick profiles



Operating sequence: **Standard**

Operating sequence: **as for tilt and turn (DKB)**

Size Range

Sash rebate width	(mm)	670 to 1600[1)]
Sash rebate height with Diagram A, Diagram C Variant 1, G and K	(mm)	840 to 2360
Sash rebate height with Diagram C Variant 2	(mm)	1000 to 2360
Frame outside width	(mm)	depending on design, drive from sash rebate width, with Diagram A max. 3460
Sash weight	(kg)	**max. 160**
Backset (Standard) Backset with lockable gear	(mm)	16 40, 45, 50
Handle location, variable/central	(mm)	420 – 1180
Total outer frame to sash clearance	(mm)	122

1) With a sash rebate width < 944 mm, the sash rebate height must not exceed 2.5 times the sash rebate width.

The recommendations for profile cross section IV 68, timber quality and design contained in DIN 68 121 are applicable to SIEGENIA-AUBI PSK PORTAL 160 PLUS fittings and must be observed.
Minimum profile cross section:
– IV 68/78 with sash rebate dimensions up to max. 1500 x 1500 mm
– IV 68/92 with large sash rebate dimensions.

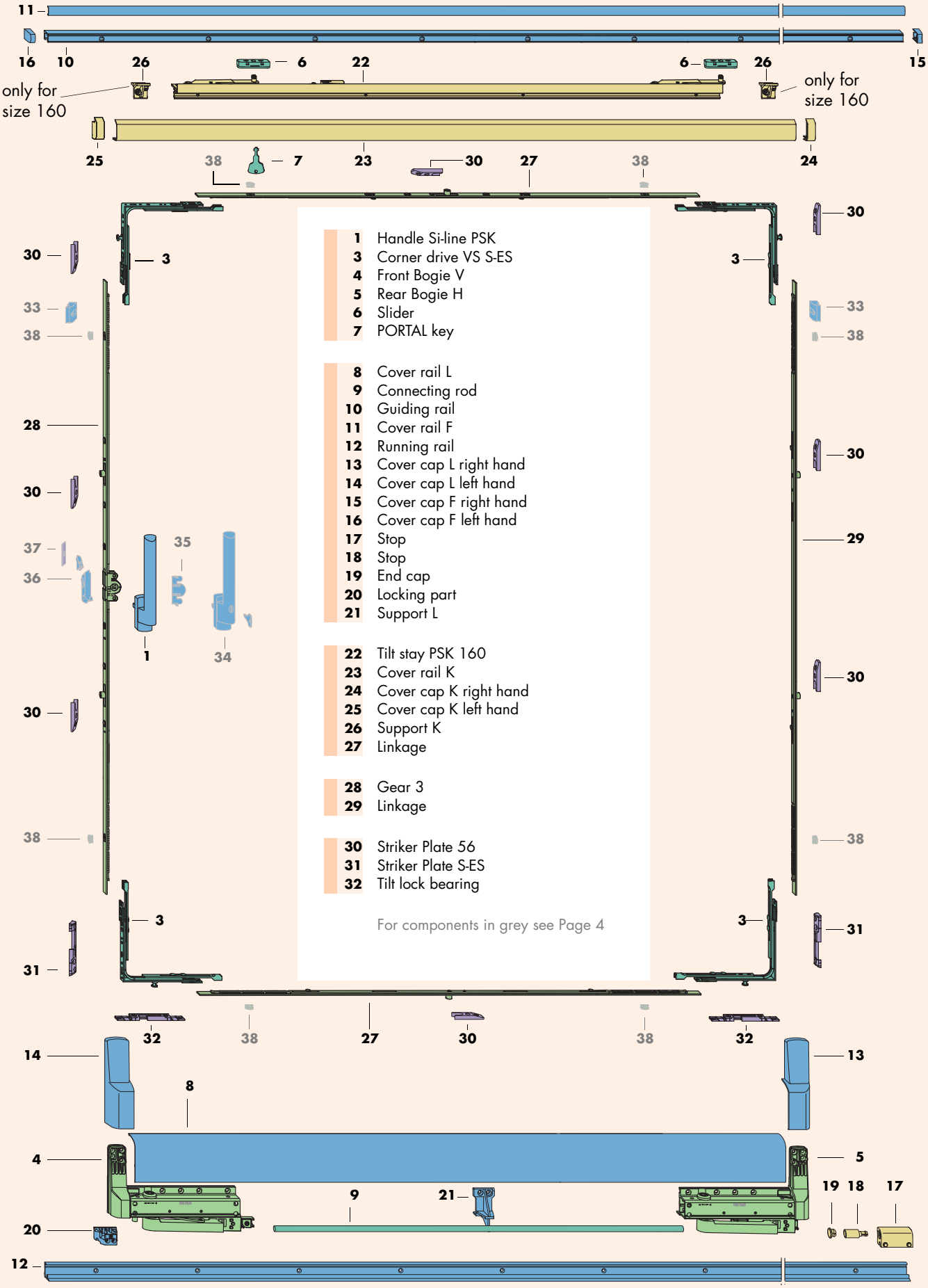
The bottom sash rail must be strengthened appropriately.

Contents

Assembly Instructions
PSKgb1012

PSKgb1012_3_2008-11/0

PSK PORTAL 160 PLUS *Hardware components*



1	Handle Si-line PSK
3	Corner drive VS S-ES
4	Front Bogie V
5	Rear Bogie H
6	Slider
7	PORTAL key
8	Cover rail L
9	Connecting rod
10	Guiding rail
11	Cover rail F
12	Running rail
13	Cover cap L right hand
14	Cover cap L left hand
15	Cover cap F right hand
16	Cover cap F left hand
17	Stop
18	Stop
19	End cap
20	Locking part
21	Support L
22	Tilt stay PSK 160
23	Cover rail K
24	Cover cap K right hand
25	Cover cap K left hand
26	Support K
27	Linkage
28	Gear 3
29	Linkage
30	Striker Plate 56
31	Striker Plate S-ES
32	Tilt lock bearing

For components in grey see Page 4

PSK PORTAL 160 PLUS *Hardware List*

	Item	Piece	Materialshorttext						Materialnumber silver	RAL 9003 white	RAL 8022 brown
generally required	1	1	**Handle Si-line PSK**	**31**					**872086**	**858264**	**895634**
				35					**875902**	**875926**	**895689**
			Handle Si-line FAVORIT	**31**					**864715**	**844052**	**895979**
				35					**869055**	**853856**	**895986**
	3	4	**Corner drive VS S-ES**						1	**FEUL0090-100010**	
		1	**Carton PSK PLUS Bogie** *consisting of:*	**right hand** **left hand**						**PMKJ0031-100010** **PMKJ0032-100010**	
	4	1	Front Bogie V	right hand	front						
				left hand	front						
	5	1	Rear Bogie H	right hand	rear						
				left hand	rear						
		1	Bag of accessories PSK- PORTAL *consisting of:*								
	6	2	Slider								
	7	1	PORTAL key								
dependent on FFB and RAB		1	**Profile set PSK PLUS** *consisting of:*	*Size[1)]* **Size 87/200** **Size 107/240** **Size 130/286** **Size 160/346**	*Length (in mm)* 670 to 870 871 to 1070 1071 to 1300 1301 to 1600	*FFB (in mm)* 670 to 870 871 to 1070 1071 to 1300 1301 to 1600	*RAB (in mm)* to 2000 2001 to 2400 2401 to 2860 2861 to 3460		**PMPJ0100-525010** **PMPJ0110-525010** **PMPJ0120-525010** **PMPJ0130-525010**	**PMPJ0100-502010** **PMPJ0110-502010** **PMPJ0120-502010** **PMPJ0130-502010**	**PMPJ0100-512010** **PMPJ0110-512010** **PMPJ0120-512010** **PMPJ0130-512010**
	8	1	Cover rail L	Size 87	865						
				Size107	1065						
				Size130	1295						
				Size160	1550						
	9	1	Connecting rod	Size 87	585						
				Size107	785						
				Size130	1015						
				Size160	1270						
	10	1	Guiding rail	Size200	2000						
				Size240	2400						
				Size286	2860						
				Size346	3460						
	11	1	Cover rail F	Size200	2000						
				Size240	2400						
				Size286	2860						
				Size346	3460						
	12	1	Running rail	Size200	2000						
				Size240	2400						
				Size286	2860						
				Size346	3460						
		1	Bag of cover caps-Set PSK 200/160 consisting of:								
	13	1	Cover cap L	right hand							
	14	1	Cover cap L	left hand							
	15	1	Cover cap F	right hand							
	16	1	Cover cap F	left hand							
		1	Bag of running rail accessories: PSK 200/160 consisting of:								
	17	1	Stop								
	18	1	Stop								
	19	1	End cap								
	20	1	Locking part								
	21	1..2	Support L								
dependent on FFB	22	1	**Tilt stay PSK 160**	*Size* **87** **107** **130** **160**	*Length (in mm)* 620 820 1020 1220	*FFB (in mm)* 670 to 870 871 to 1070 1071 to 1300 1301 to 1600				**716526** **716533** **716540** **716557**	
		1	**Bag - Cover rail K PSK 160** consisting of:	*Size* **87** **107** **130** **160**		*FFB (in mm)* 670 to 870 871 to 1070 1071 to 1300 1301 to 1600			**305843** **305881** **305928** **305966**	**305850** **305898** **305935** **305973**	**305874** **305911** **305959** **305997**
	23	1	Cover rail K	*Size* 87 107 130 160	*Length (in mm)* 940 1140 1370 1670						
	24	1	Cover cap K	right hand							
	25	1	Cover cap K	left hand							
	26	0..2	Support K	*only for Size 160*							
	27	2	**Linkage** *(with standard locking cam)*	*Size* **1** **1 MV** **2 MV** **3 MV**		*FFB (in mm)* 670 to 1100 670 to 1100 1000 to 1460 1461 to 1600		– 1 1 1		**703816** **703823** **703830** **703847**	
			Linkage S-ES *(with mushroom cam)*	*Size* **1 MV** **2 MV** **3/3 MV**		*FFB (in mm)* 670 to 1100 1000 to 1460 1461 to 1600		1 1 3		**707272** **707289** **719701**	

1) For precise definition of the required size determine the dimensions of FFB and RAB.

	Item	Piece	Materialshorttext				Materialnumber silver	RAL 9003 white	RAL 8022 brown
dependent on FFH	28	1	**Gear 3** *(with standard locking cam)*	*Size*	*handle position (in mm)*	*FFH (in mm)*			
				1	420 to 550	840 to 1100	–	**706992**	
				2 MV	500 to 730	1000 to 1460	1	**707012**	
				3 MV	730 to 960	1461 to 1920	1	**707029**	
				4/TL	940 to 1180	1880 to 2360	2	**707036**	
				4a/TL	940 to 1180	1650 to 2150	2	**701829**	
			Gear 3 S-ES A0103 *(with mushroom cam)*	*Size*	*handle position (in mm)*	*FFH (in mm)*			
				1a MV	420 to 590	840 to 1180	1	**719602**	
				2/2 MV	500 to 730	1000 to 1460	2	**719619**	
				3/2 MV	730 to 960	1461 to 1920	2	**719626**	
				4/TL	940 to 1180	1880 to 2360	2	**719633**	
	29	1	**Linkage** *(with standard locking cam)*	*Size*		*FFH (in mm)*			
				1		840 to 1100	–	**703816**	
				2 MV		1000 to 1460	1	**703830**	
				3 MV		1461 to 1920	1	**703847**	
				4/TL		1880 to 2360	2	**703854**	
				4a/TL		1650 to 2150	2	**703861**	
			Linkage S-ES *(with mushroom cam)*	*Size*		*FFH (in mm)*			
				1 MV		840 to 1100	1	**707272**	
				2 MV		1000 to 1460	1	**707289**	
				3/3 MV		1461 to 1920	3	**719701**	
				4/TL		1880 to 2360	2	**713662**	
dep. on timber design	30	4...10	**Striker Plate 56** *(for standard locking cam)*	A0813		*Eurogroove 7/8x4*		**707210**	
				A1361		*Eurofold 18/8*		**707227**	
				A1362		*Eurofold 20/8*		**707241**	
	31		**Striker Plate S-ES** [2] *(for mushroom cam)*	A0807 rh		*Eurogroove 7/8x4*		**FRSC0421-100011**	
				A0807 lh		*Eurogroove 7/8x4*		**FRSC0422-100011**	
				A1361 rh		*Eurofold 18/8*		**FRSC0451-100010**	
				A1361 lh		*Eurofold 18/8*		**FRSC0452-100010**	
				A1362 rh		*Eurofold 20/8*		**FRSC0461-100010**	
				A1362 lh		*Eurofold 20/8*		**FRSC0462-100010**	
	32	2	**Tilt lock bearing**	A0380		*Eurogroove 7/8x4*		**708934**	
				A1361		*Eurofold 18/8*		**708958**	
				A1362		*Eurofold 20/8*		**708965**	

2) For right handed PSK Portal elements use striker plate A...rh, for left handed PSK Portal elements use striker plate A...lh.

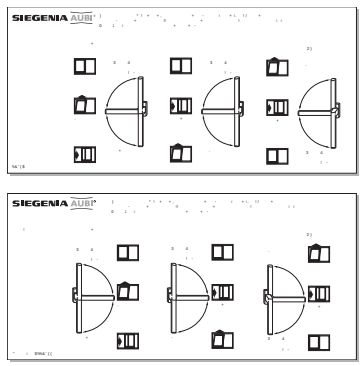
Accessories

	Item	Piece	Materialshorttext			Materialnumber silver	RAL 9003 white	RAL 8022 brown
Accessories	33	0...2	**Centring piece** *Contents 10 off*	A0807 A1361	Eurogroove 7/8x4 Eurofold 18/8 u. 20/8		**301418** **301401**	
	34	1	**Handle Si-line PSK lockable**	**31**		**872093**	**858318**	**895641**
				35		**–**	**875957**	**895696**
			Handle Si-line FAVORIT lockable	**31**		**868249**	**852392**	**–**
				35		**880647**	**862575**	**–**
	35	1	**Anti-drill guard E**				**878781**	
	36	1	**Bag - Anti-mishandling device FAVORIT**	NA 9 mm NA 13 mm A2100	Contents 25 off		**289983** **300596**	
	37	1	**Stop**	A0800 A1360	Eurogroove 7/8x4 Eurofold 18/8 u. 20/8		**703410** **703366**	
	w/o pic	1	**Linkage S-ES**	230 MV			**710272**	
	w/o pic	1	**Linkage UE**	230 MV/75			**710319**	
	38	0...8	**Tension button**				**702543**	
	w/o pic	1	**Handle Si-line FAVORIT removable**			–	**800249**	–
			Rose EUROLINE PSK			–	**800362**	**895702**
			Csk. screw M5 x 40	*(2 pieces)*			**800829**	

Important notes

- Please consult our Product Information „Tilt and turn fittings for windows and doors".
- For SIEGENIA-AUBI PSK PORTAL 160 PLUS hardware, the size ranges specified on Page 1 apply. The recommendations for profile cross section IV 68, timber quality and design contained in DIN 68 121 are applicable to SIEGENIA-AUBI PSK PORTAL 160 PLUS fittings and must be observed.
- Minimum profile cross section:
  – IV 68/78 with sash rebate dimensions up to max. 1500 x 1500 mm
  – IV 68/92 with large sash rebate dimensions.
  The bottom sash rail must be strengthened appropricalely.
  Where specific manufacturing regulations or working guidelines exist, these are to be expressly observed. Details of speeds and torques when screwing in are binding.
- It is possible that bearing components can break due to excessive strain. This could cause the window to drop out of the frame and potentially cause serious injuries. If due to special circumstances (use in schools, nurseries etc.) excessive strain on bearing components can be expected, fatigue of these components must be prevented **e.g.** by
  – Offsetting the stops to reduce the opening width or
  – Fitting a lockable handle to prevent unauthorised use.
  If in doubt, please consult your SIEGENIA-AUBI representative.
- The hardware described in this manual is manufactured from zinc plated steel and requires special considerations.
  They should not be used: in damp atmospheres
  in connection with aggressive corrosion inducing atmospheres
  in salty air
  • on timber containing aggressive preservatives or contents
  In these situations , please consult your SIEGENIA-AUBI representative.
- We can accept no liability in respect of any damages or defects arising where the hardware assembly incorporates products not made by SIEGENIA-AUBI.
- Install the hardware components correctly by following closely the instructions on Page 11 to 20.
  Do not overtighten the screws!
- The surface treatment of doors and windows must be performed **before** the hardware is assembled on the window. Post treatment could adversely affect the effective functioning of the components, in which case we accept no liability for such consequences.
- Please follow the standard techniques for packing and wedge the sealed glazing units within the sash/frame.
- Do not use any acid hardening sealants, as these can lead to corrosion of the hardware components.
- Keep all grooves and rebates free from dirt and debris - especially residues of cement or plaster. Avoid the direct effect of moisture on the hardware and contact of the hardware with cleaning agents.
- Affix a clearly visible copy of the user information onto the fitted window or door element.
  The operating sticker can be found in the „Carton PSK PLUS Bogie".

Remove the applicable segment from the appropriate sticker and stick it on the window sash.



Liability exclusions

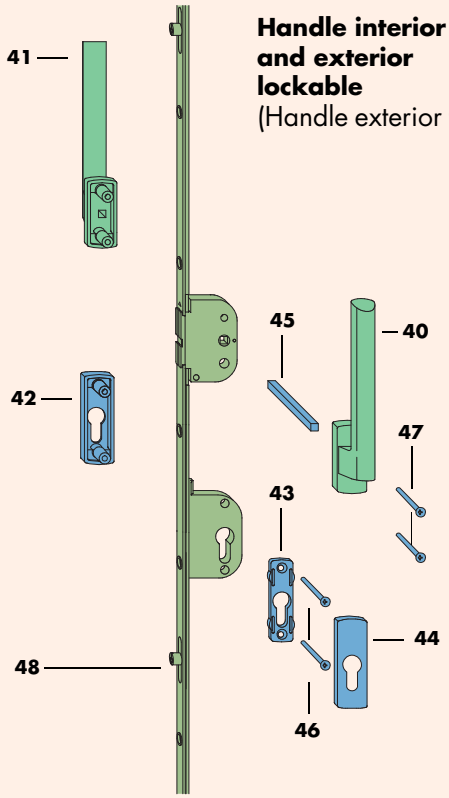
We accept no liability in respect of any damages or malfunctions caused by the hardware or doors fitted with them, as a result of incorrect or inappropriate specifications or other information provided by the customer, failure to follow these instructions, wilful damage or negligence, or misuse or, alteration or repair or, of an exertion of excessive force to the hardware by the user or customer.
We can accept no liability in respect of any damages or malfunctions caused by the hardware or doors fitted with it , when:

- the assembly of the hardware was not in accordance with our instruction and generally agreed good practise,
- the hardware has been subject to misuse or excessive force or other external affects,
- the hardware has been modified in any way,
- the hardware has been combined with non approved hardware or parts from other manufacturers or when non approved combinations of surface finish are used,
- the hardware is not maintained at least on a yearly schedule according to our maintenance instruction PSK PORTAL 160 PLUS,
- the end user is not informed of the required maintenance or instructed in the proper use of the door.
- in order to ensure problem free operation, the hardware must be cleaned regularly, particularly the track and running rail.

Abbreviations

The following abbreviations are used in these Assembly Instructions:

F	Guiding rail	G	Handle location	OKFF	Upper edge of finished floor	S	Heavy duty version	VSU	Locking side, bottom
FB	Sash width	H	rear	PZ	Profile cylinder	S-ES	Steel increased security	ZV	Central lock
FFB	Sash rebate width	L	Bogie	RAB	Outer Frame width	SW	Across flats (spanner)		
FFH	Sash rebate height	M	Centre	RAH	Outer Frame height	V	front		
FH	Sash height	MV	Centre lock	RFB	Frame rebate width	VS	Locking side		



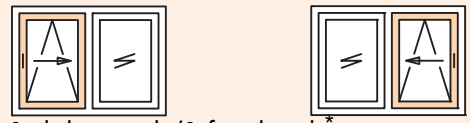
Handle interior and exterior lockable
(Handle exterior flat)

Components from the Hardware List on Page 3 and 4 are needed to make up the complete set

Diagram-overview

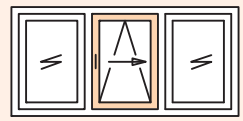
DIN left *or* DIN right

Diagram A



1 sliding sash/1 fixed sash*

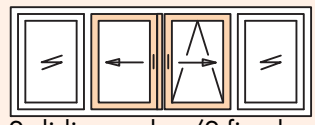
Diagram G



1 sliding sash/2 fixed sashes*

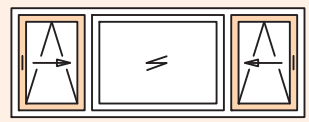
*) *Instead of the fixed sashes, turn sashes are also possible. Turn sashes only with Rose Si-line internal and* removable handle *(see Product Catalogue).*

Diagram C



2 sliding sashes/2 fixed sashes*

Diagram K

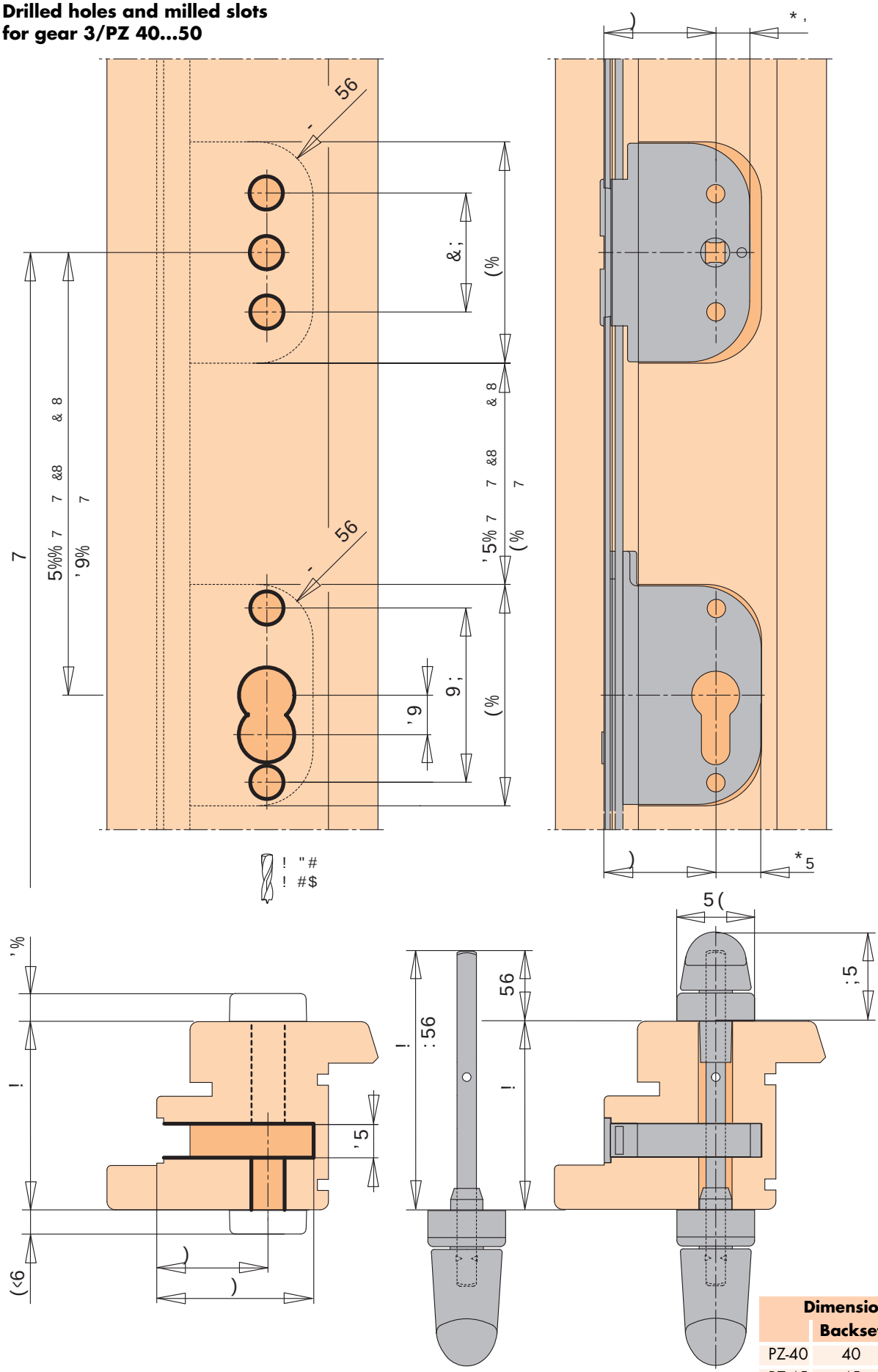


2 sliding sashes/1 fixed sash

	Item	Piece	Description				material number silver	RAL 9003 white	RAL 8022 brown
generally required		1	**Carton Handle Si-line PSK-PZ i. u. a.** *consisting of:*				**262191**	**262214**	**306819**
	40	1	Handle Si-line PSK	without square					
	41	1	Handle Si-line PSK außen flach						
	42	1	Rose Si-line PZ exterior						
		1	Bag - cover cap Si-line PZ *consisting of:*						
	43	1	Rose Si-line PZ interior						
	44	1	Cover cap Si-line PZ interior						
		1	**Accessories Fav. TL/PZ i. u. a.** *bestehend aus:*		*Sash profile thickness (mm)*	55 to 64 65 to 74 75 to 84	**ZMZP0030-100010** **ZMZP0020-100010** **ZMZP0010-100010**		
	45	1	Square bolt	*Length (mm)* 115 125 135	*Sash profile thickness (mm)*	55 to 64 65 to 74 75 to 84			
	46	2	Countersunk screw M5 x ..	*Length (mm)* 60 70 80	*Sash profile thickness (mm)*	55 to 64 65 to 74 75 to 84			
	47	2	Countersunk screw M5 x ..	*Length (mm)* 65 75 85	*Sash profile thickness (mm)*	55 to 64 65 to 74 75 to 84			
dep.. on FFH	48	1	**Gear 3/PZ-** *(with standard-locking cam)*	*Size* **40** **30** **50**	*Backset (in mm)* **4/TL** 40 **4/TL** 45 **4/TL** 50	*FFH (in mm)* 1880 to 2360 1880 to 2360 1880 to 2360	2 2 2	**701928** **700433** **701959**	

Gear size for FFH 840 - 1920 see Price List

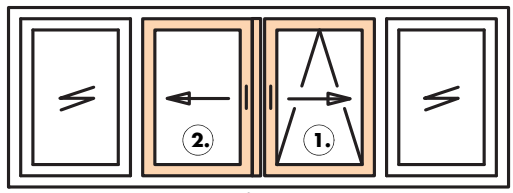
Drilled holes and milled slots for gear 3/PZ 40...50



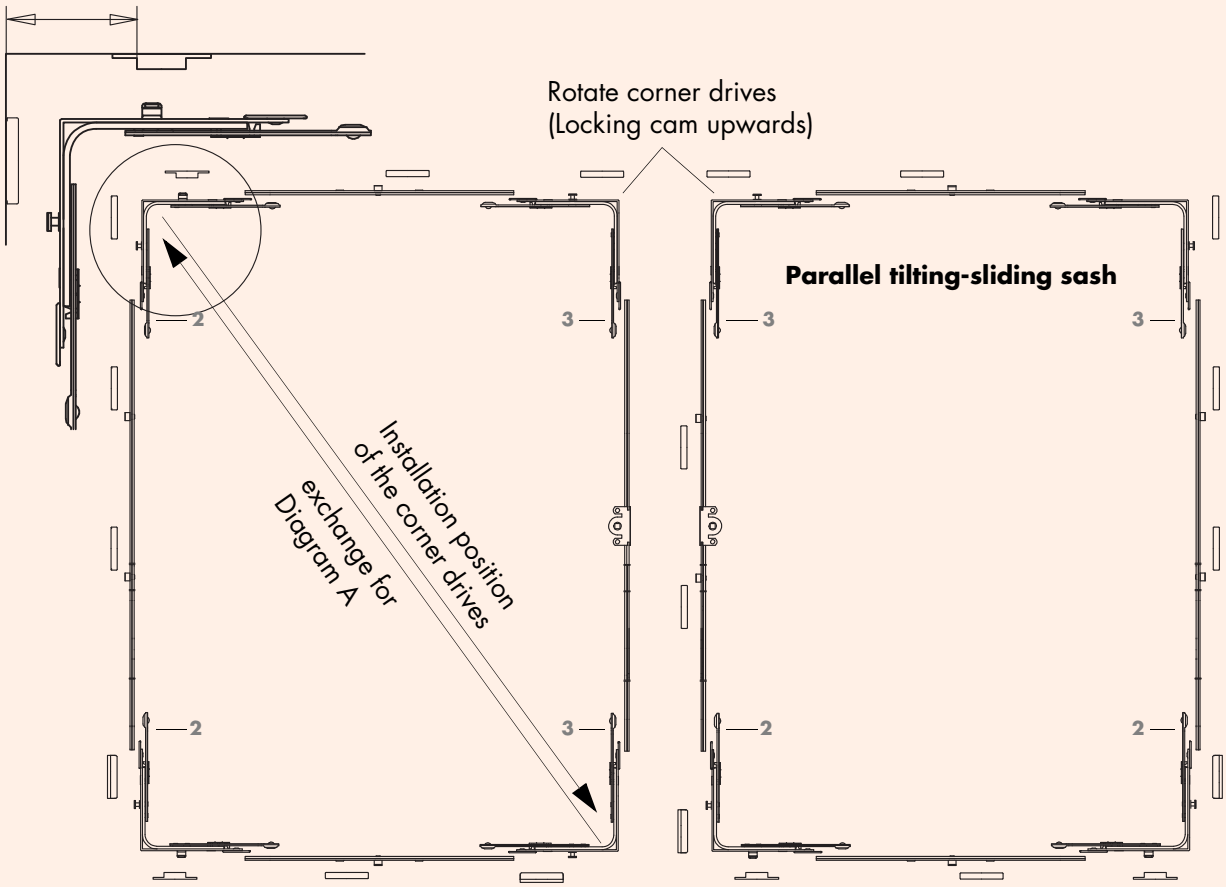
Dimensions for gear				
	Backset	A1	A2	B
PZ-40	40	12,5	16,5	57
PZ-45	45	12,5	16,5	62
PZ-50	50	12,5	16,5	67

Diagram C

General Instructions



2 sliding sashes / 2 fixed sashes



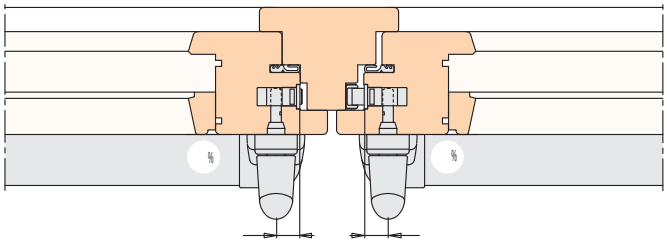
Note: First and second sash must be suitably marked to avoid incorrect operation

The sliding sashes must **only** be operated in the order below!

Opening:	first the first sash	**1.**
	then the second sash	**2.**
Closing:	first the second sash	**2.**
	then the first sash	**1.**

Diagram C Variant 1

with screwed on slave profile
and gear 3 also in the second sash



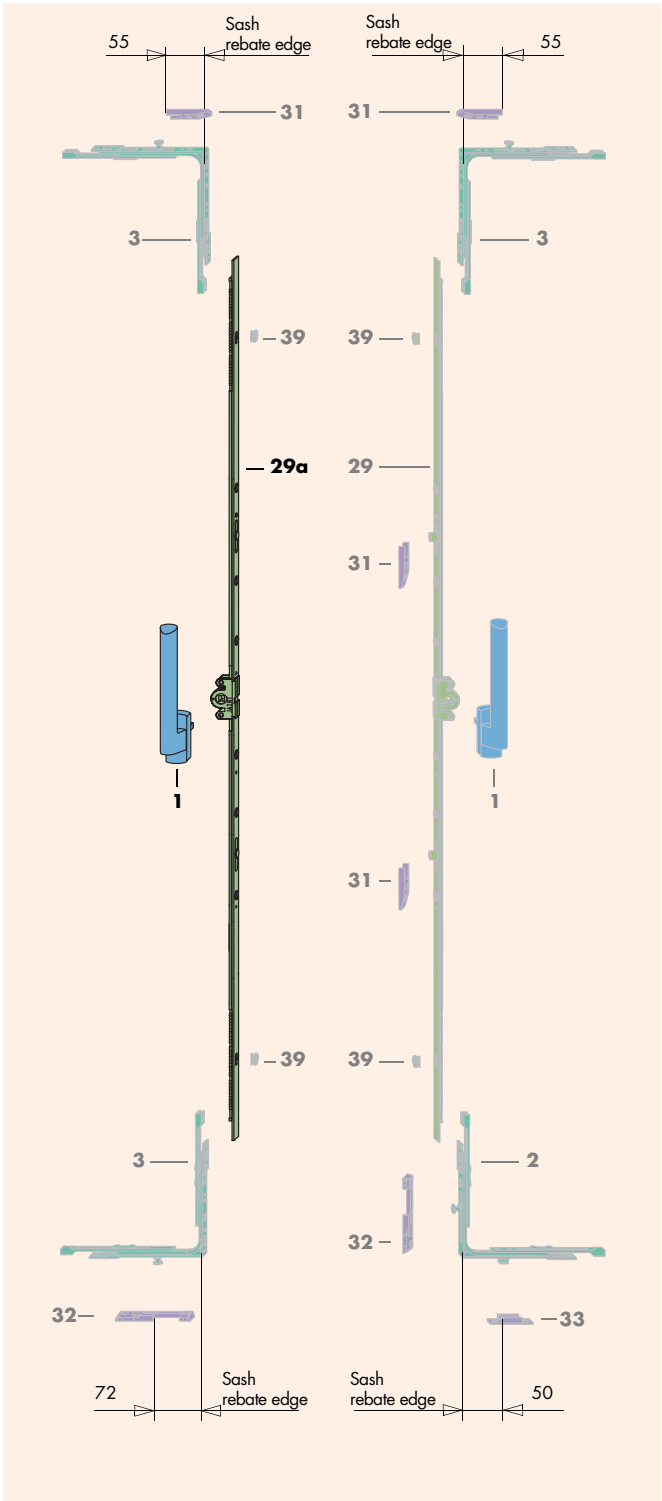
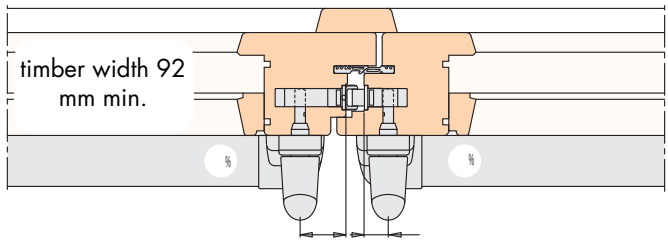
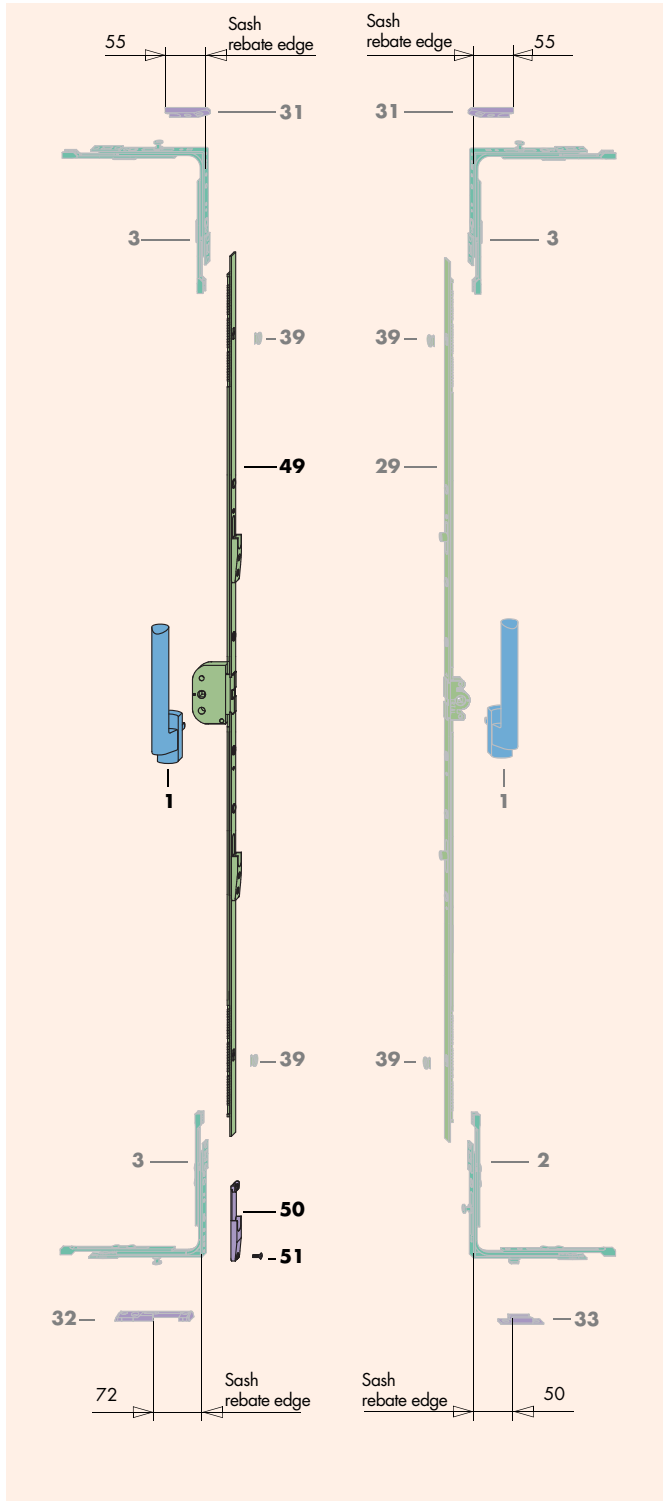


Diagram C Variant 2

with opposing hardware groove and
gear 3/30-M5 „C“ in the second sash

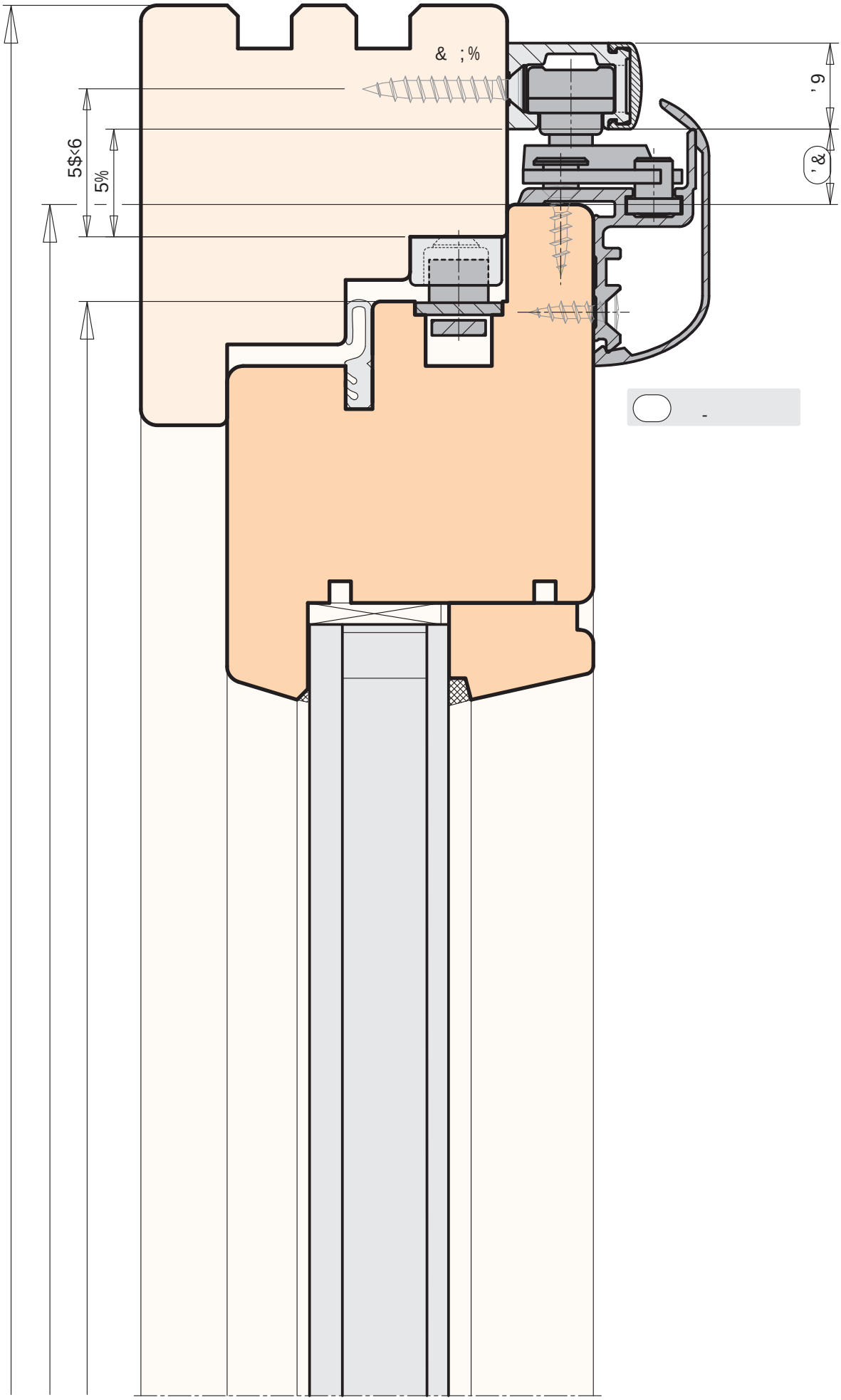




PSK PORTAL 160 PLUS *Hardware List Diagram C*

	Item	Piece Variant 1	Piece Variant 2	Description			Material number silver	Material number RAL 9003 white	Material number RAL 8022 brown
gen. requi.	1	2	2	**Handle Si-line PSK**	**31**		**872086**	**858264**	**895634**
				Handle Si-line FAVORIT	**31**		**864715**	**844052**	**–**
		1	1	**PSK 160 PLUS S-ES**	**right hand**			**PMKJ0021-100010**	
		1	1		**left hand**			**PMKJ0022-100010**	
FFB u. RAB		2[1]	2[1]	**Profile set PSK PLUS**	*Size*[2]	*FFB (in mm)* / *RAB (in mm)*			
					Gr. 87/200	670 to 870 / to 2000	**PMPJ0100-525010**	**PMPJ0100-502010**	**PMPJ0100-512010**
					Gr. 107/240	871 to 1070 / 2001 to 2400	**PMPJ0110-525010**	**PMPJ0110-502010**	**PMPJ0110-512010**
					Gr. 130/286	1071 to 1300 / 2401 to 2860	**PMPJ0120-525010**	**PMPJ0120-502010**	**PMPJ0120-512010**
					Gr. 160/346	1301 to 1600 / 2861 to 3460	**PMPJ0130-525010**	**PMPJ0130-502010**	**PMPJ0130-512010**
dependent on FFB	**22**	2	2	**Tilt stay PSK 160**	*Size*	*Length (in mm)* / *FFB (in mm)*			
					87	620 / 670 to 870		**716526**	
					107	820 / 871 to 1070		**716533**	
					130	1020 / 1071 to 1300		**716540**	
					160	1220 / 1301 to 1600		**716557**	
		2	2	**Bag - cover rail K PSK 160**	**87**	670 to 870		**305850**	
					107	871 to 1070	**305843**	**305898**	**305874**
					130	1071 to 1300	**305881**	**305935**	**305911**
					160	1301 to 1600	**305928**	**305973**	**305959**
							305966		**305997**
	27	4	4	**Linkage** *(with standard locking cam)*	*Size*	*FFB (in mm)*			
					1	670 to 1100	–	**703816**	
					2 MV	1000 to 1460	1	**703830**	
					3 MV	1461 to 1600	1	**703847**	
				Linkage S-ES *(with mushroom cam)*	*Size*	*FFB (in mm)*			
					1 MV	670 to 1100	1	**707272**	
					2 MV	1000 to 1460	1	**707289**	
					3/3 MV	1461 to 1600	3	**719701**	
dependent on FFH	**28**	1	1	**Gear 3** *(with standard locking cam)*	*Size*	*Griffsitz (in mm)* / *FFH (in mm)*			
					1	420 to 550 / 840 to 1100	–	**706992**	
					1a MV	420 to 590 / 840 to 1180	1	**707005**	
					2 MV	500 to 730 / 1000 to 1460	1	**707012**	
					3 MV	730 to 960 / 1461 to 1920	1	**707029**	
					4 TL	940 to 1180 / 1880 to 2360	1	**707036**	
					4a TL	940 to 1180 / 1650 to 2150	2	**701829**	
				Gear 3 S-ES A0103 *(with mushroom cam)*	*Size*	*Griffsitz (in mm)* / *FFH (in mm)*			
					1a MV	420 to 590 / 840 to 1180	1	**719602**	
					2/2 MV	500 to 730 / 1000 to 1460	2	**719619**	
					3/2 MV	730 to 960 / 1461 to 1920	2	**719626**	
					4 TL	940 to 1180 / 1880 to 2360	2	**719633**	
	28a	1	–	**Gear 3** *(without locking cam)*	*Size*	*Griffsitz (in mm)* / *FFH (in mm)*			
					1a	420 to 590 / 840 to 1180	-	**716823**	
					2	500 to 730 / 1000 to 1460	-	**716786**	
					3	730 to 960 / 1461 to 1920	-	**707906**	
					4 TL	940 to 1180 / 1880 to 2360	-	**707913**	
	48	–	1	**Gear 3/30-M5 „C"**	*Size*	*Griffsitz (in mm)* / *FFH (in mm)*			
					2 MV	500 to 730 / 1000 to 1460		**712481**	
					3 MV	730 to 960 / 1461 to 1920		**PGVE0010-100010**	
					4 TL	940 to 1180 / 1880 to 2360		**712504**	
					4a TL	940 to 1180 / 1650 to 2150		**712597**	
				Gear 3/45-M5 „C"	**4 TL**	940 to 1180 / 1880 to 2360		**PGVE0020-100010**	
	29	2	2	**Linkage** *(with standard locking cam)*	*Size*	*FFH (in mm)*			
					1	840 to 1100	–	**703816**	
					2 MV	1000 to 1460	1	**703830**	
					3 MV	1461 to 1920	1	**703847**	
					4 TL	1880 to 2360	1	**703854**	
					4a TL	1650 to 2150	2	**703861**	
				Linkage S-ES *(with mushroom cam)*	*Size*	*FFB (in mm)*			
					1 MV	840 to 1100	1	**707272**	
					2 MV	1000 to 1460	1	**707289**	
					3/3 MV	1461 to 1920	3	**719701**	
					4 TL	1880 to 2360	2	**713662**	
dependent on wooden structure	**30**			**Striker plate 56** *(for standard locking cam)*	A0813	*Euronut 7/8x4*		**707210**	
					A1361	*Eurofalz 18/8*		**707227**	
					A1362	*Eurofalz 20/8*		**707241**	
	31	8..18	11..15	**Striker plate S-ES**[3] *(for mushroom cam)*	A0807 Re	Euronut 7/8x4		**FRSC0421-100011**	
					A0807 Li	Euronut 7/8x4		**FRSC0422-100011**	
					A1361 Re	Eurofalz 18/8		**FRSC0451-100010**	
					A1361 Li	*Eurofalz 18/8*		**FRSC0452-100010**	
					A1362 Re	*Eurofalz 20/8*		**FRSC0461-100010**	
					A1362 Li	*Eurofalz 20/8*		**FRSC0462-100010**	
	32	4	4	**Tilt lock bearing**	A0380	*Euronut 7/8x4*		**708934**	
					A1361	*Eurofalz 18/8*		**708958**	
					A1362	*Eurofalz 20/8*		**708965**	
	49	–	1	**Striker plate VSO**	A0767			**712191**	
	50	–	1	**Countersunk screw ST 3,9 x 13-H**				**717950**	

1) *Symmetrical construction, point of separation must lie between the sliding sashes.*
2) *To determine the required size precisely, determine the dimensions of FFB and RAB.*
3) *For right handed PSK Portal elements use striker plate A...rh, for left handed PSK Portal elements use striker plate A...lh.*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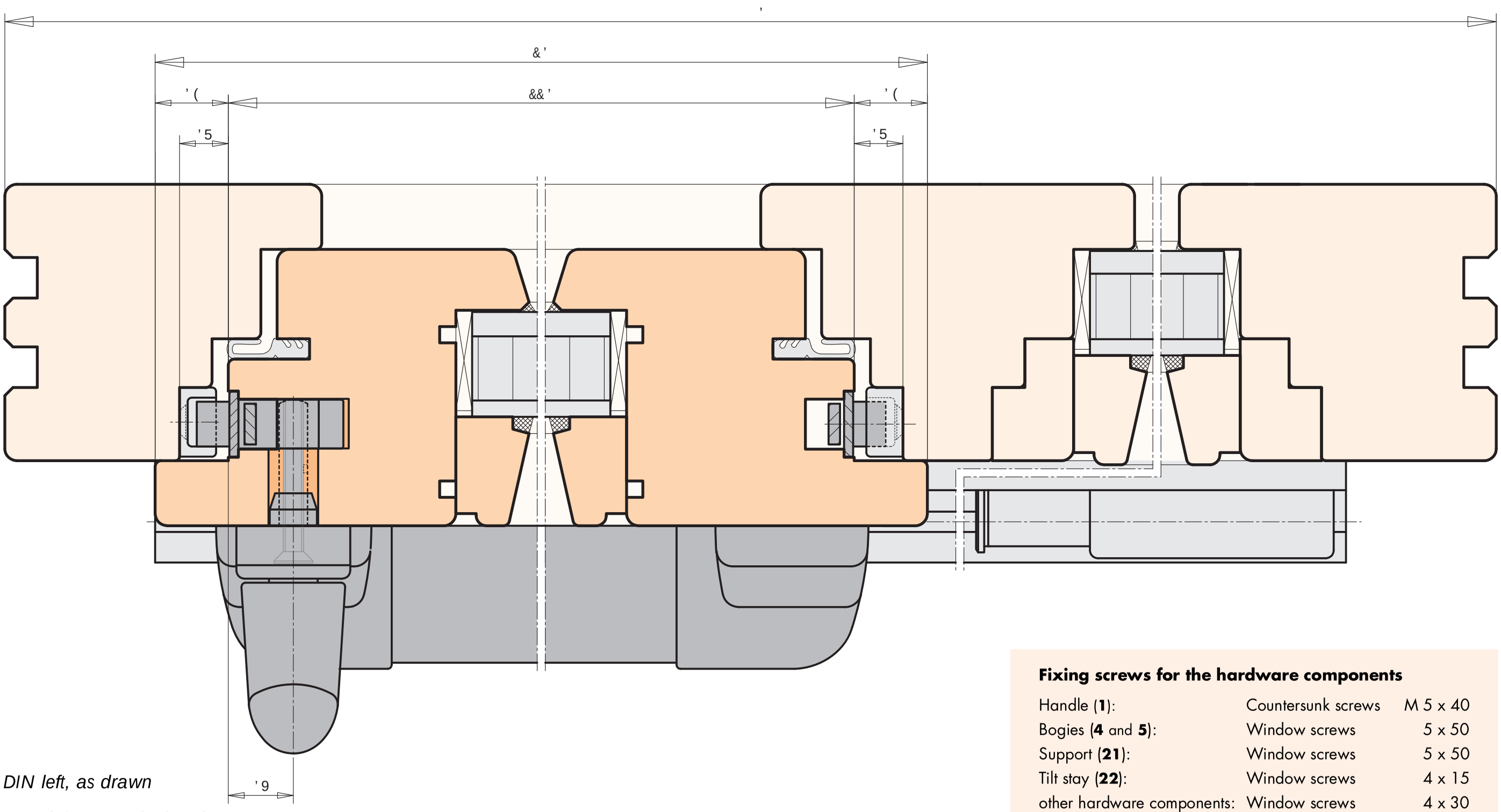


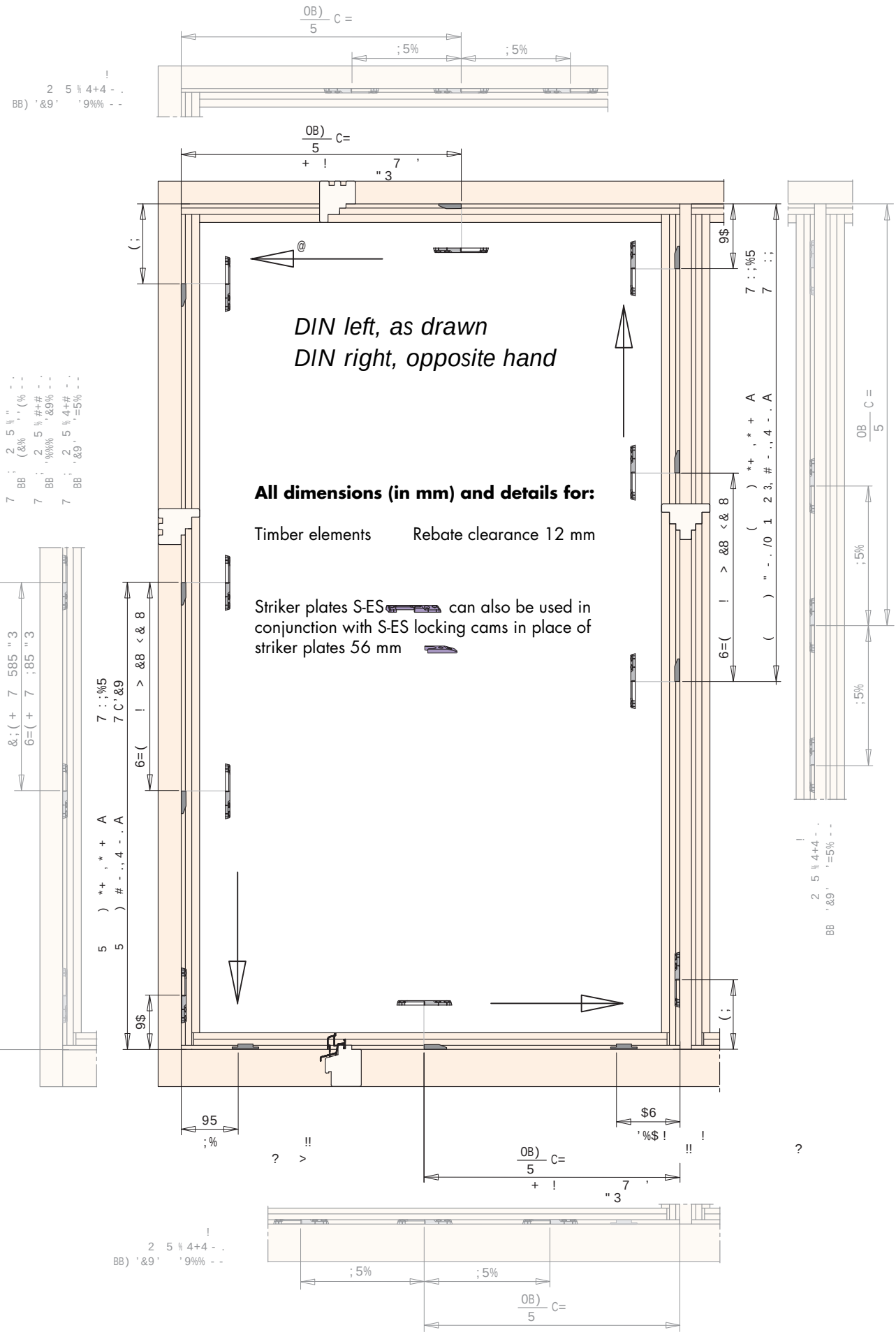
DIN left, as drawn

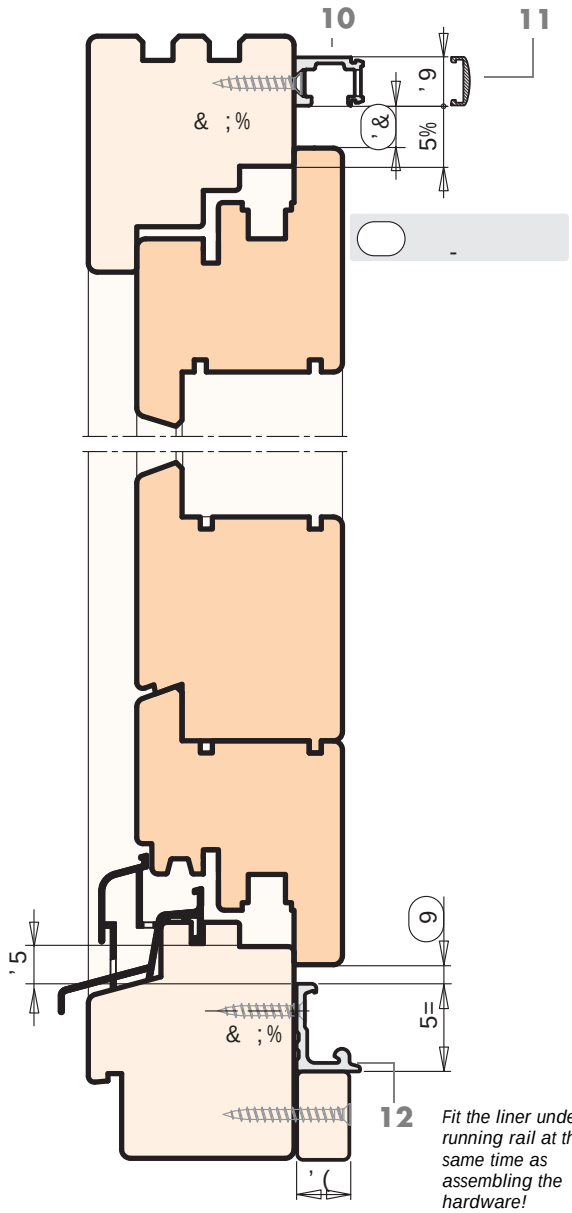
DIN right, opposite hand

Fixing screws for the hardware components

Handle (**1**):	Countersunk screws	M 5 x 40
Bogies (**4** and **5**):	Window screws	5 x 50
Support (**21**):	Window screws	5 x 50
Tilt stay (**22**):	Window screws	4 x 15
other hardware components:	Window screws	4 x 30

Window screws for timber-windows, steel transparent zinc coated (not included in the delivery specification)


DIN left, as drawn
DIN right, opposite hand
All dimensions (in mm) and details for:
Timber elements
Rebate clearance 12 mm
Striker plates S-ES can also be used in conjunction with S-ES locking cams in place of striker plates 56 mm



Fit the liner under the running rail at the same time as assembling the hardware!

Assembly running and guide rail

A Cut guide rail (**10**) and running rail (**12**) to length.

B Position both parts in accordance with dimensions alongside and secure.

C Push both sliders (**6**) into guide rail (**10**).

D Cut cover rail F (**11**) to length and clip on.

E Attach side cover caps F (**15** and **16**).

F Place a continuous liner under running rail (**12**).
(See illustration alongside or also illustration on Page 16.)

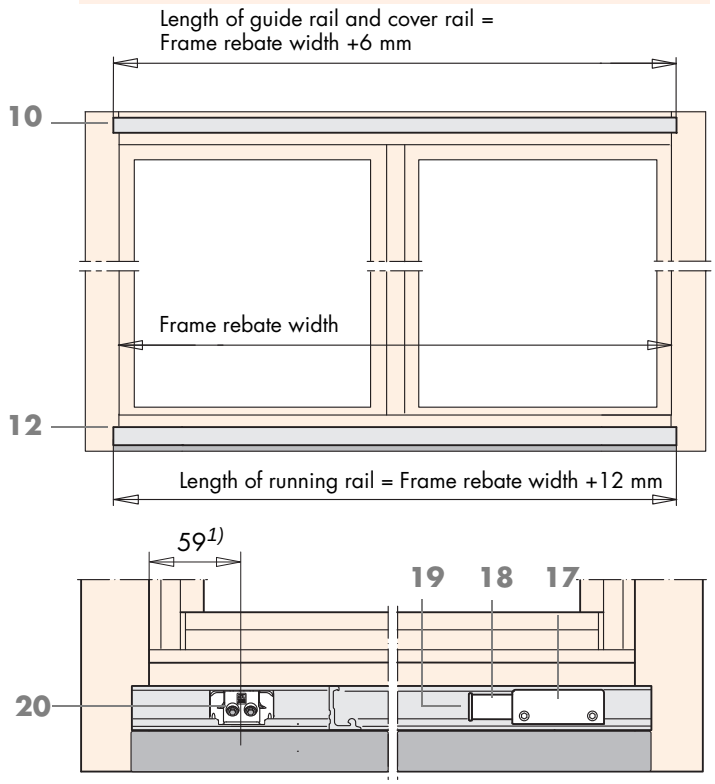
G Position[1)] the locking part (**20**) and bolt down tightly with hexagon socket screw wrench 4 mm A/F
(Torque 4 - 4.5 Nm).

H Push stop (**18**) and end cap (**19**) into the stop block (**17**) depending on the direction of sliding, DIN left or DIN right.

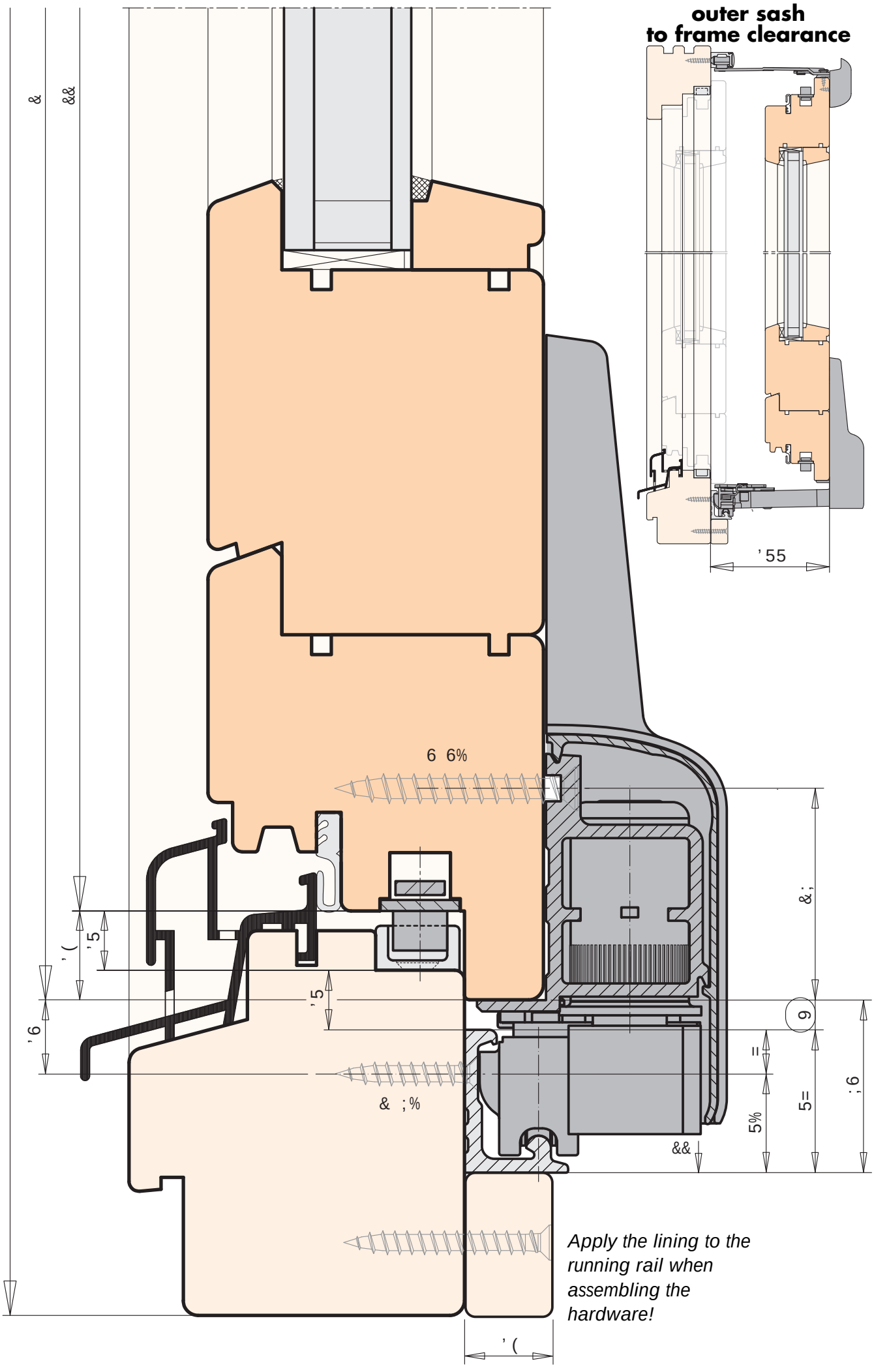
I Insert stop block (**17**) into running rail (**12**) and screw down lightly.

Note: Do not screw down the stop block (**17**) tightly until after inserting the sliding sash (see Page 20).

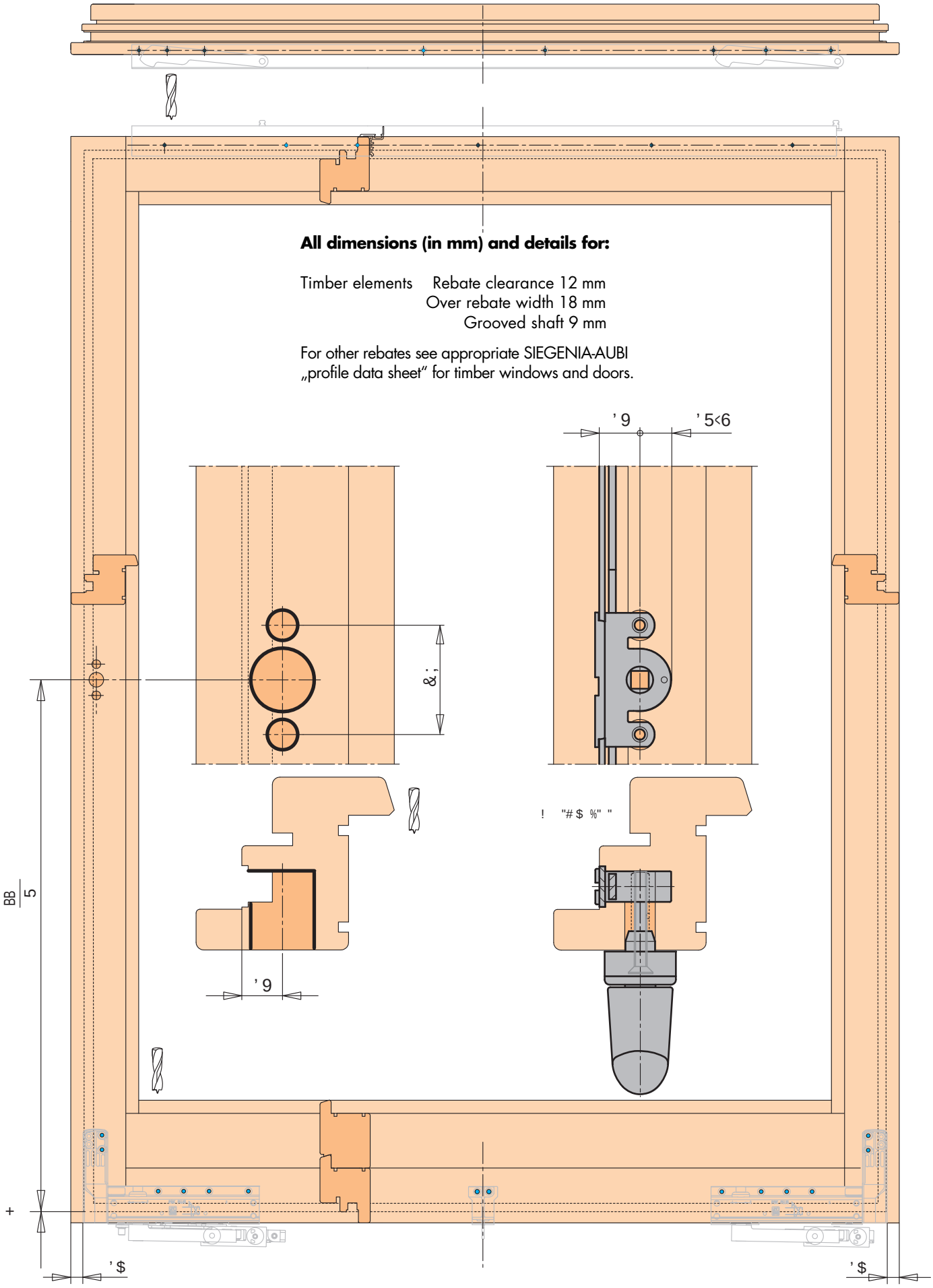
Dimensional details for 6 mm of sash overlap on the frame corresponds to „flush with outer edge of sash".



1) Note: *If the17 mm dimension on Page19 increases or decreases, dimension R will increase or decrease correspondingly.*



Apply the lining to the running rail when assembling the hardware!


All dimensions (in mm) and details for:
Timber elements
Rebate clearance 12 mm
Over rebate width 18 mm
Grooved shaft 9 mm
For other rebates see appropriate SIEGENIA-AUBI „profile data sheet" for timber windows and doors.
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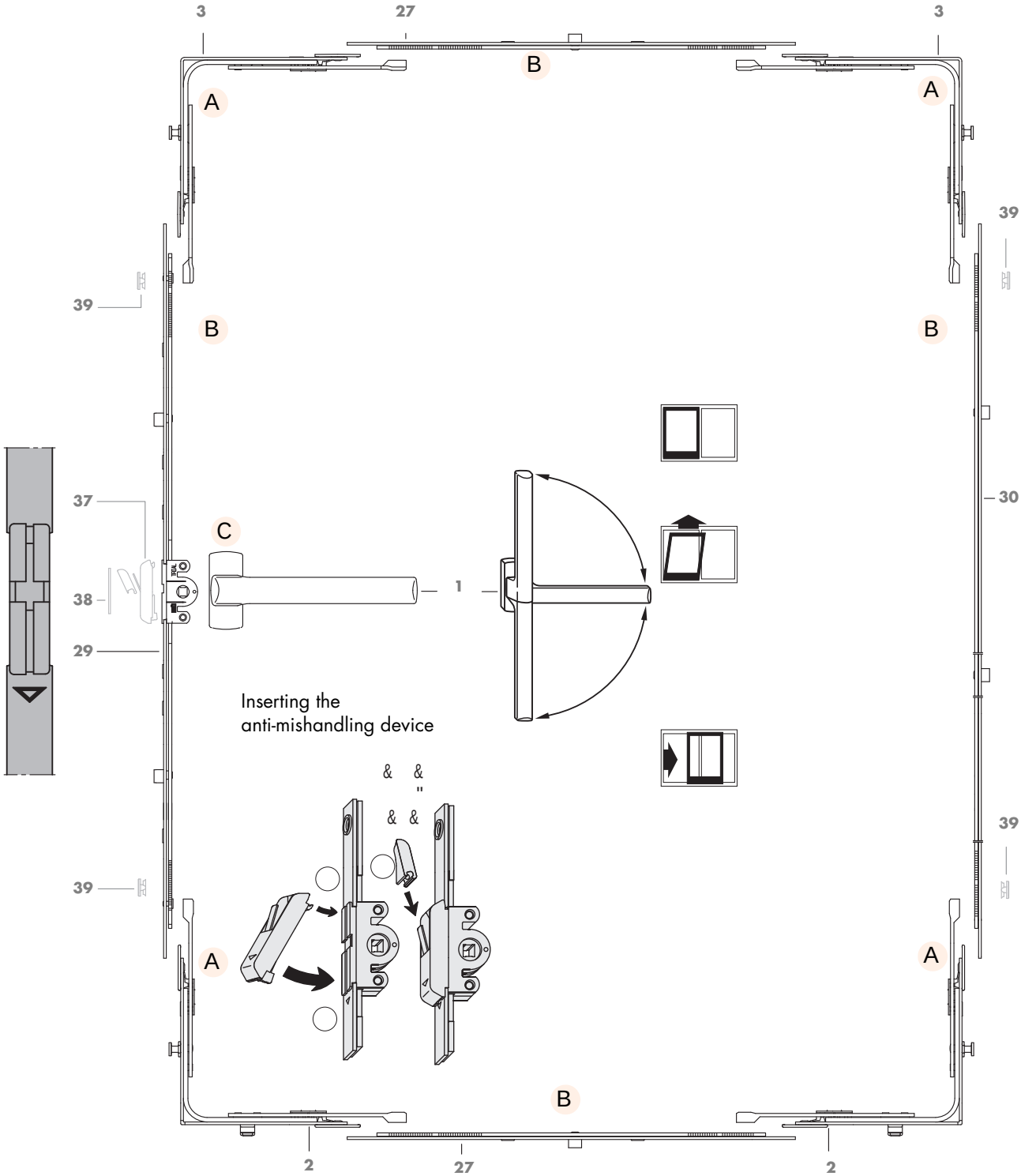


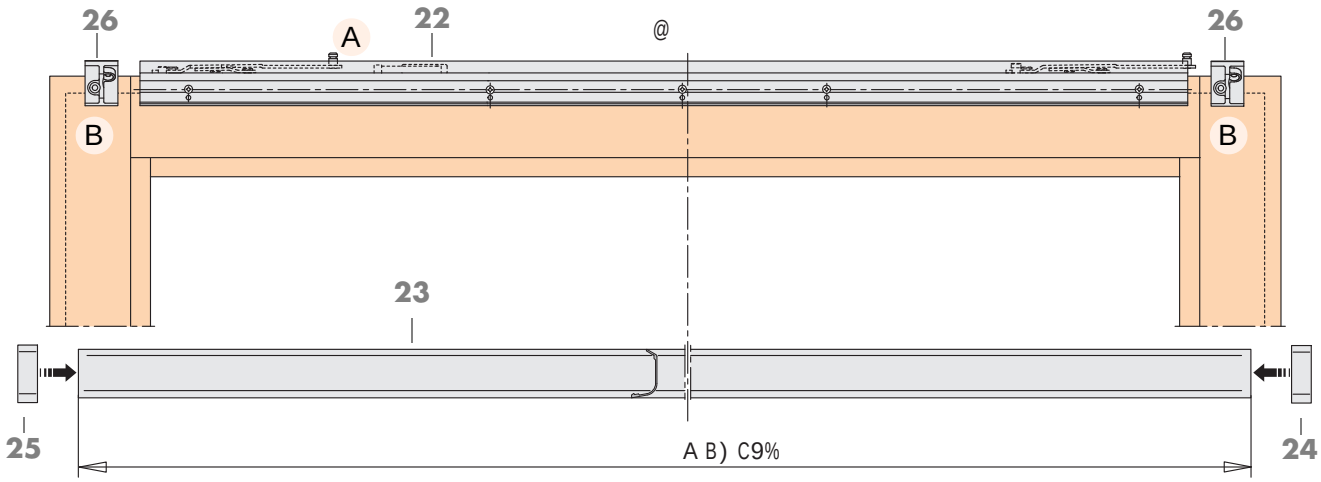
Assembly of the central lock on the sash frame

A Insert and screw on corner drives (**2**) and (**3**) in the correct location in the hardware groove.

B Cut the gear (**29**) and the linkages (**27** and **30**) to length, lay in the hardware groove and screw on.
Note: Insert each of the linkages (**27** and **30**) (Lettering FFH etc. overhead) opposite to the direction of closing. Also insert the gear (**29**) opposite to the direction of closing - for Size 1a, 2 and 3 insert the locking cam below the handle location.

C Fit the handle (**1**) horizontally and shear off the fixing of the components by actuating the handle downwards.

Note: For fixing screws see Page 13.



Assembly of the tilt stay

A Screw the tilt stay (**22**) centrally on the sash. (Note the marking)

B Only screw on 2 supports K (**26**) for Size 160, depending on the sash width. Cut the cover rail K (**23**) to length and clip it on. Attach the side cover caps K (**24** and **25**).

Assembly of the rollers

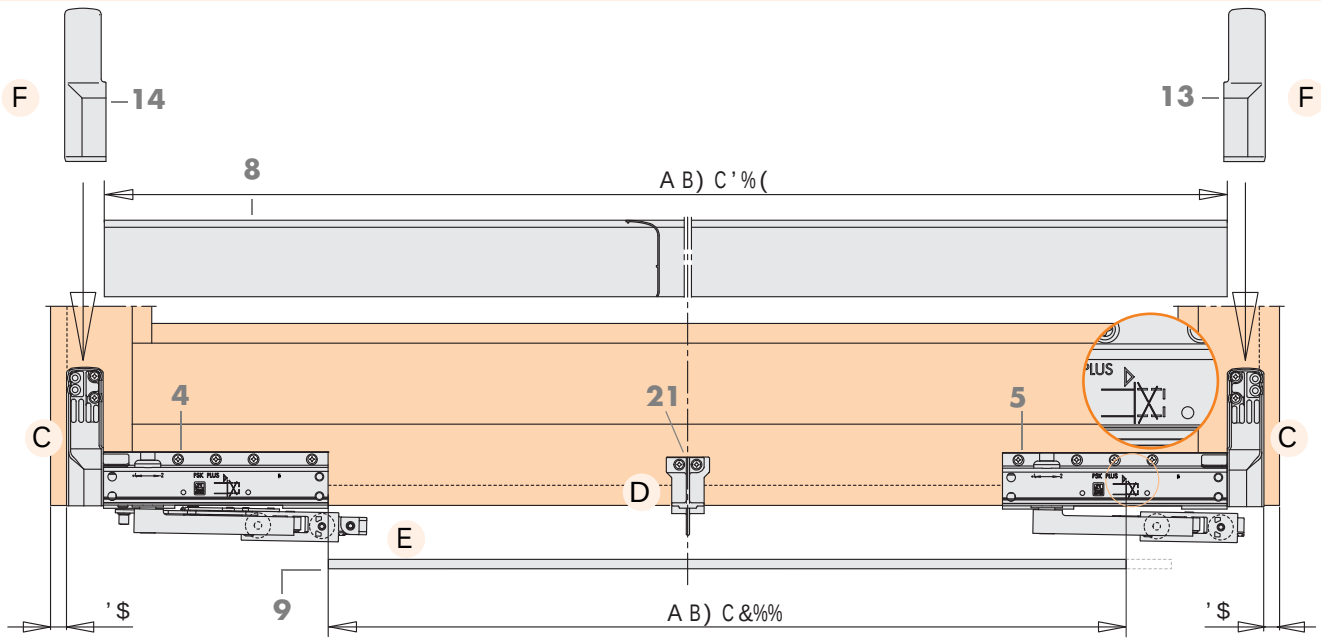
C Screw on front bogie V (**4**) and rear bogie H (**5**) firmly.
If there is an angled or round over rebate on both bogies screw in an extra fixing screw. (See Page 11)

D Identify support L (**21**) for cover rail L (**8**) and screw on.

E Place connecting rod (**9**) on front bogie V (**4**) , scribe at the marking of the rear bogie H (**5**) and cut to length.
Insert connecting rod (**9**) into rear bogie H (**5**) and clamp tightly with socket head screw (Torque from 10 - 11 Nm). Use 4 mm A/F hexagon socket wrench for this.
Insert connecting rod (**9**) into front bogie V (**4**).
Fix rear bogie H (**5**) in the locking position (hold tightly).
Ensure parallel setting of front V and rear bogies H (**4** and **5**).
Likewise clamp connecting rod (**9**) tightly in front bogie V (**4**) with socket head screw (Torque from 10 - 11 Nm).

F After inserting the sash frame into the frame (see Page 20) engage cover rail L (**8**) and push on cover caps L (**13** and **14**).

Note: For fixing screws see Page 13.



Inserting sliding sashes

A Move the stay arms(**22**) into the tilted position.
Place the sash frame onto the running rail (**12**) at an angle and engage the coupling bolts of the stay arms in slider (**6**).
Test the engaged coupling bolts by briefly pulling on the stay arm!

B Fix the stop block (**18**). For this push the sash into the desired end position and screw down the stop block (**18**) with 4 mm A/F hexagon socket wrench and a torque of 4 - 4.5 Nm.

C Check the operation of all hardware components.
If necessary make use of the adjustment possibilities.

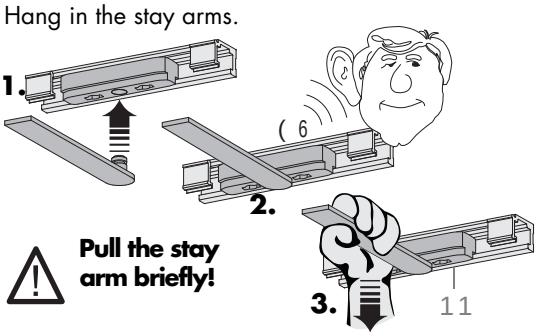
Adjustment possibilities

If necessary the operation of the tilt stay and the height of the Parallel-Slide-Tilt sash can be adjusted **after installing glass pane.**
The detent effect and the initial pressure of the tilt stay can be set with a 4 mm A/F hexagon socket spanner.
The height can be set on the front bogie (**4**) and rear (**5**) an 8mm A/F hexagon socket spanner.
The bogie height setting (+4/–2mm) is self locking.

Note: The locking part (**20**) can be moved for a central sash engagement.

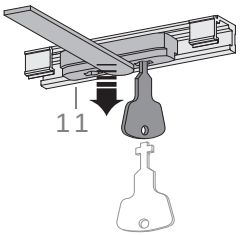
Important information

Hang in the stay arms.



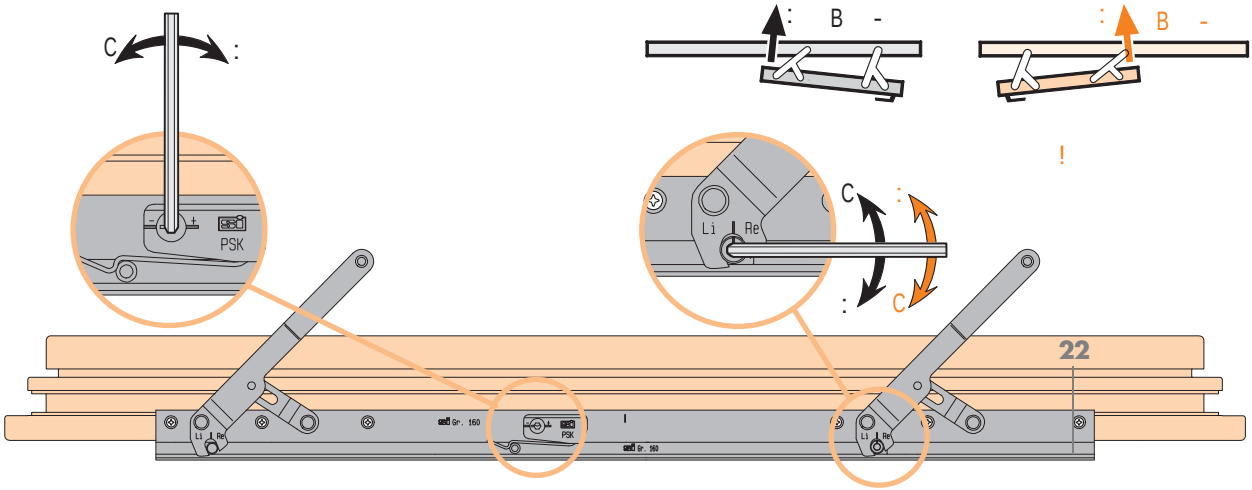
Pull the stay arm briefly!

Hang out the stay arms.



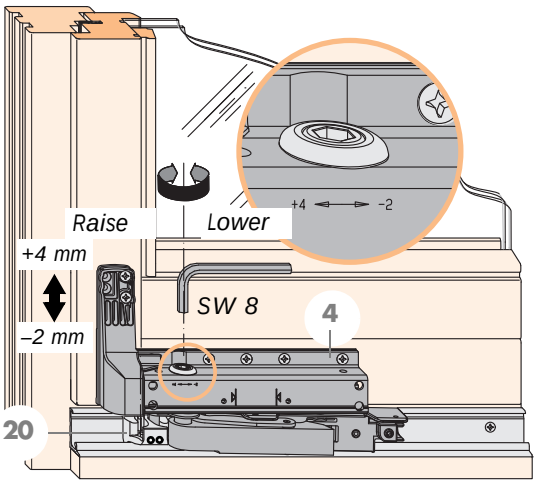
Only with SIEGENIA-AUBI Key!

Setting the tilt stay snap-in action



Setting the lead-in adjustment on the tilt stay

Setting the height on the bogie



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