

PORTAL HS

PORTAL HS with Threshold ECO PASS

guiding rail KH 0130-01 wood thickness 68 mm

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Target group of this documentation

This documentation is intended to be used 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 PORAL hardware. Safe and proper assembly of these POTAL hardware components is not possible without expert knowledge. Keep these installation instructions in a safe place.

Intended use

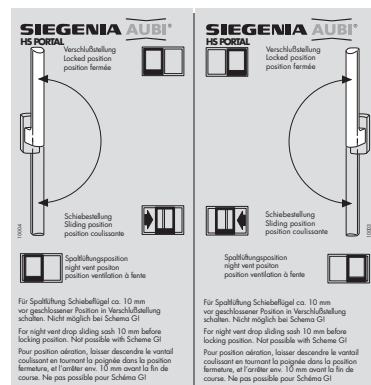
- PORTAL HS hardware for use in windows or French windows with a sash timber thickness of 68 mm.
- Sash weight max. 300 kg. With additional bogie wheels max. 400 kg.
- The lifting-slider PORTAL HS hardware is intended for use in fixed buildings.
- They permit horizontal opening and closing of doors and French windows from profiles for lifting-slider elements. The lifting-slider elements must be installed vertically, in no circumstances in a sloping position.

Safety notes

- Maintenance must be carried out on the PORTAL HS hardware at least once a year. See maintenance instructions
- Observe the "guidelines and general information on the product and on liability (VHBH)".
- Inform the end user about the content of the "guidelines and general information for end users (VHBE)".
- The DIN 68 121 guidelines (Timber profiles for windows and French windows) for **timber quality** and **design** must be adhered to when using Siegenia PORTAL HS 300 hardware. The specifications given for screw-in revolutions and torques must be adhered to.
- The hardware components described in these assembly instructions are manufactured from steel, zinc plated and then after-treated with a special procedure.
- They may not be used:
 - in wet rooms
 - in environments with aggressive, corrosive air
 - in environments with saline air
 - for timber with aggressive contents

In such cases, please get in touch with your Siegenia sales representative

- Your complete set of hardware should be composed of solely **Siegenia hardware components**. Otherwise damage could occur, for which we accept no liability.
- All hardware components must be properly mounted as per the description on pages "Assembly" from page 18 and "Hardware components on frames" from page 26. Please note: **Do not overtighten the screws.**
- The lifting-sliding elements may be surface treated only **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 provide a guarantee.
- When inserting blocks, be sure to observe technical guideline no. 3 from the German Glazing Trade [Glaserhandwerk], "Blocking glazing units" [Klotzung von Verglasungseinheiten].
- Never use acid cure sealants as they may cause the hardware components to corrode.
- Keep the sliding bump (on the running rail) and all rebates free from deposits and dirt, especially from remnants of cement and plaster. Avoid exposing the fittings directly to water and do not let cleaning agents come into contact with the fittings.
- Attach the operating sticker (slide direction DIN left or DIN right) in a visible position to the installed lift-sliding leaf. The operating sticker is located in the basic carton HS- 300 TS.



Processing instructions

Size range

Sash width	HS 300	(mm)	720 to 3335
Sash width	HS 400	(mm)	1370 to 3335
Sash height (<i>sliding sash</i>)	KH 0130-01	(mm)	1190 to 2690
Outer frame width		(mm)	1470 to 6700
External height of frame		(mm)	1308 to 2808
Sash weight	HS 300	(kg)	max. 300
Sash weight	HS 400	(kg)	max. 400
Backset (gear)		(mm)	37.5
Sash timber width		(mm)	68
Sash clearance		HS (mm)	28
Handle height (<i>window:</i>	<i>FH 1190 -1790</i>)	(mm)	410
Handle height barrier-free (<i>window:</i>			400
Handle height (<i>door:</i>	<i>FH 1790 -2690</i>)	(mm)	1010
Handle height barrier-free (<i>door:</i>			1000

- The **profile cross sections** must match the details of the following Siegenia construction drawings sash timber thickness 68 mm:

<i>H48.HS_HZS 01EN</i>	<i>Sheet 4.1</i>	PORTAL HS with guiding rail KH0130-01	Scheme A
	<i>Sheet 1.2</i>	PORTAL HS	Scheme C
	<i>Sheet 1.4</i>	PORTAL HS	Scheme G2
	<i>Sheet 1.5</i>	PORTAL HS	Scheme G3
	<i>Sheet 6.1</i>	Threshold	cutting dimensions
	<i>Sheet 6.2</i>	Threshold	cutting dimensions
- From a sash weight of 200 kg, we recommend the use of the comfort gear PORTAL HS 300 PZ - PGKB4070-52401_ or PGKB4080-52401_
- From a sash weight of 300 kg, the use of the comfort gear PORTAL HS 300 PZ - PGKB4070-52401_ or PGKB4080-52401_ is necessary.
- For HS 300 with sash weight 300 - 400 kg, the connecting rod must be fastened to the bogie wheels with a dowel pin 6 x 16 (**72**).
- The components of the lifting-slider element must be stored at room temperature (20°C) for 24 hours before working. This applies especially to all components of the ECO PASS threshold.
- We recommend the use of stainless steel screws for the mounting of components to the threshold ECO PASS.
- The threshold must be shimmed to be pressure-resistant and sound-absorbing at a clearance of 300 mm.
- We recommend using the following elastic adhesives and sealants: e.g. from OTTO Chemie - OTTOCOLL® HiTack or from Collano Adhesives AG - Collano® A 1970 or equivalent.

Hardware components scheme A

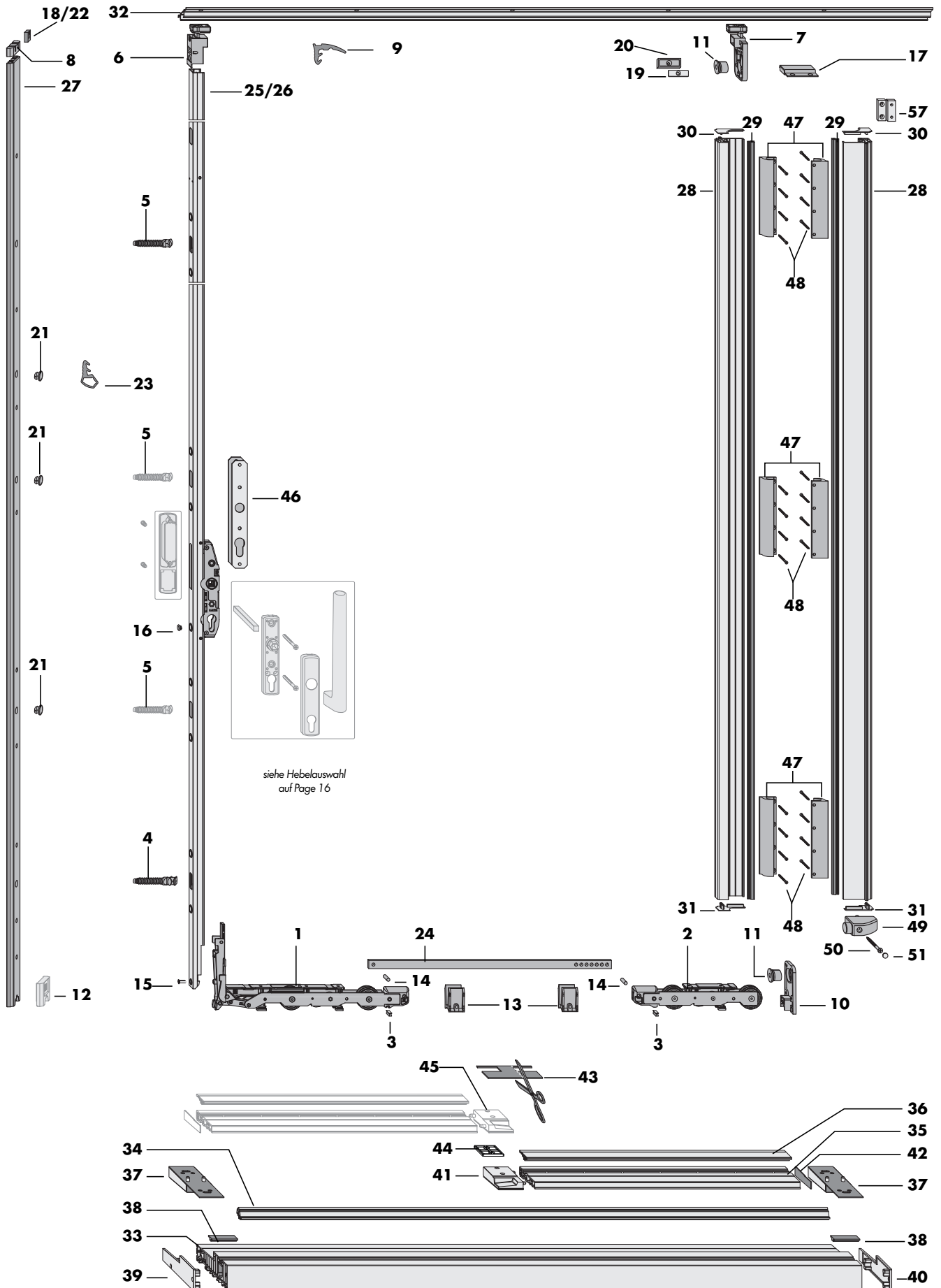


Fig. 1: Hardware diagram HS 300 scheme A

Item	Quantity scheme A	PORTAL HS 300 scheme A			Material number		
		Description			RAL 7040 grey	RAL 9005 black	
General requirements	1	1	Handle Si-line PORTAL HS 300			See handle selection on page 16	
	1	1	Basic carton HS 300 TS consisting of:			PMKB0300-10001_	
	1	1	Bogie wheels V	VSU HS 300 TS			
	2	1	Bogie wheels H	HS 300 TS			
	3	1	Brush	Length 100 mm			
	1	1	Carton HS-H KH0130-01 consisting of: for guide rail KH0130-01			PMZB0350-0E601_	PMZB0350-02301_
	4	1	Locking bolt E, bottom TS				
	5	1	Locking bolt E, top TS				
	6	1	Front top guide				
	7	1	Rear top guide				
	8	1	Top filling piece for guide rail KH0130-01				
	9	1	Top seal HH0134-05 Length 3.4 m				
	1	1	Bag of accessories HS-H bottom high consisting of:			PMZB0310-0E601_	PMZB0310-02301_
	10	1	Bottom cover plate rear up				
	11	2	STOP				
	12	1	Bottom high filling piece for sealing rail B made of timber				
	13	2	Bottom guide				
	14	2	Dowel pin 6 x 16				
	15	1	M5 x 13 countersunk screw				
	16	1	Bag closing cap grey				
	16	1	Bag closing cap brown				
	1	1	Sealing parts set HS-H KH0130-01 IV 68 consisting of:			PMZB0450-0E601_	PMZB0450-02301_
	17	1	Sealing bridge				
18	1	Top sealing part					
19	1	Fastening plate 10					
20	1	Sealing part 10					
21	3	Bag closing cap For sealing rail B					
22	1	Top sealing part HSK					
23	1	Seal HH0134-02 Length 17.5 m			RAL 7040 grey PDPB0030-0E601_	RAL 9005 black PDPB0030-09901_	
depending on FB	24	1	Connecting rod				
			Size	length (in mm)	FB (in mm)		
			150 TS	898	720 to 1500	719282	
			200 TS	1398	1501 to 2000	719480	
			250 TS	1898	2001 to 2500	719497	
			335 TS	2748	2501 to 3350	719725	
depending on sash height	25	1	Gear PORTAL HS 300 PZ				EV 1 silver
			Size	Handle height (mm)	Sash height (mm)		
			170	410	1208 to 1775	PGKB0010-52401_	
			220	1010	1776 to 2275	PGKB0020-52401_	
			260	1010	2276 to 2675	PGKB0030-52401_	
			or lifting-slide sash up to 200 kg				
	26	1	Comfort gear PORTAL HS 300 PZ				EV 1 silver
			Size	Handle height (mm)	Sash height (mm)		
			220	1010	1776 to 2275	PGKB4070-52401_	
			260	1010	2276 to 2675	PGKB4080-52401_	
		for lifting-slide sash up to 200 kg					
27	1	Sealing rail B Alternative: rail B in timber version.			Size	FH (in mm)	RAL 7040 grey PPDB0010-0E601_
			260	1208 to 2675		RAL 9005 black PPDB0010-02301_	
	1	Sealing rail C Alternative: rail C in timber version.			Size	sash clearance (in mm)	FH (in mm)
			260	28	1208 to 2675		RAL 7035 grey PMZB0180-02101_
28	2	Sealing rail C HS			Length 2.7 m		
29	2	Sealing profile rail C HS			for sealing rail C		
30	2	Tilt and slide portal left sealing rail C					
31	2	Tilt and slide portal right sealing rail C					

Item	Quantity scheme A	PORTAL HS 300 scheme A				Material number	
		Description				RAL 7035 grey	RAL 9005 black
32	1	Guide rail KH0130-01 for FHD 68 mm	Size	length (in mm)	RAB (in mm)	EV 1 silver 130865 130889 130902 130926 130940 130964 130988	C 34 dark bronze 130872 - 130919 - 130957 - 130995
			300	2900	1470 to 3000		
			350	3400	3001 to 3500		
			400	3900	3501 to 4000		
			450	4400	4001 to 4500		
500	4900	4501 to 5000					
570	5600	5001 to 5700					
670	6600	5701 to 6700					
33	1	Threshold ECO PASS B171	300	3000	1493 to 3000	PPBB1600-52401_ PPBB1610-52401_ PPBB1620-52401_ PPBB1630-52401_ PPBB1650-52401_ PPBB1750-52401_ PPBB1660-52401_	
			350	3500	3001 to 3500		
			400	4000	3501 to 4000		
			450	4500	4001 to 4500		
			500	5000	4501 to 5000		
570	5700	5001 to 5500					
670	6700	5501 to 6700					
34	1	Running rail ECO PASS 5/15	350	3500	1493 to 3500	PPLB5210-52401_ PPLB6210-52401_ PPLB5220-52401_ PPLB6220-52401_ PPLB6230-52401_ PPLB5240-52401_	
			400	4000	3501 to 4000		
			450	4500	4001 to 4500		
			500	5000	4501 to 5000		
			570	5700	5001 to 5500		
670	6700	5501 to 6700					
35	1	Support rail ECO PASS 596	Size	length (in mm)	FB (in mm)	PPZB5330-02101_ PPZB5340-02101_ PPZB5350-02101_ PPZB5060-02101_	
			150	1500	720 to 1500		
			200	2000	1501 to 2000		
			250	2500	2001 to 2500		
350	3500	2501 to 3350					
36	1	Adapter rail ECO PASS H 5 for profile timber	150	1500	720 to 1500	PPZB5480-02101_ PPZB5390-02101_ PPZB5400-02101_ PPZB5160-02101_	
			200	2000	1501 to 2000		
			250	2500	2001 to 2500		
			350	3500	2501 to 3350		
37-44	1	Frame corner connection H EP B171 consisting of:	ECO PASS for timber elements			PMRB1150-02101_	
	37	2	Sealing part REV ECO PASS				
	38	2	Seal	for recess running rail REV			
	39	1	End cap, left	for threshold ECO PASS			
	40	1	End cap, right	for threshold ECO PASS			
	41-44	1	Sealing part MP left consisting of:	For DIN left			PMRB0212-02103_
		41	1	Sealing part MP ECO PASS left B171	for sealing between slider and fixed sash		
		42	1	End seal MP	for sealing support rail sealing block REV		
		43	1	Sealing pad H B171	on sealing block and support rail		
		44	1	Groove closing plate in groove			
	45-48	1	Sealing part MP right consisting of:	For DIN right			PMRB0211-02103_
		45	1	Sealing part MP ECO PASS right B171	for sealing between slider and fixed sash		
		42	1	End seal MP	for sealing support rail sealing block REV		
		43	1	Sealing pad H B171	on sealing block and support rail		
44		1	Groove closing plate in groove				

ACCESSORIES

for anti-intruder elements

5	2	Locking bolt E, top TS	719152
54	-	Locking part top C TS	719466
46	1	Drilling protection E	
	1	Anti-intruder unit HS consisting of:	Matching for sealing rail CPMZB0180...
47	6	Anti-intruder unit HS WK 2 K1	PMZB0190-50001_
48	25	Screw for frame part 5 x 55 mm	

for other requirements

	1	Bag stop consisting of:	RAL 7040 grey PMZB0140-0E601_	RAL 9005 black 831922
49	1	Stop		
50	1	Countersunk tapping screw B 4.8 x 70		
51	1	Tilt and slide portal		
	1	Bag of accessories HS-H for frame corner connection consisting of:	PMZB0440-10001_	
no illus.	1	Bolt Ø 7 x 40		
no illus.	1	Clamping screw 6 x 130		

Hardware components scheme C

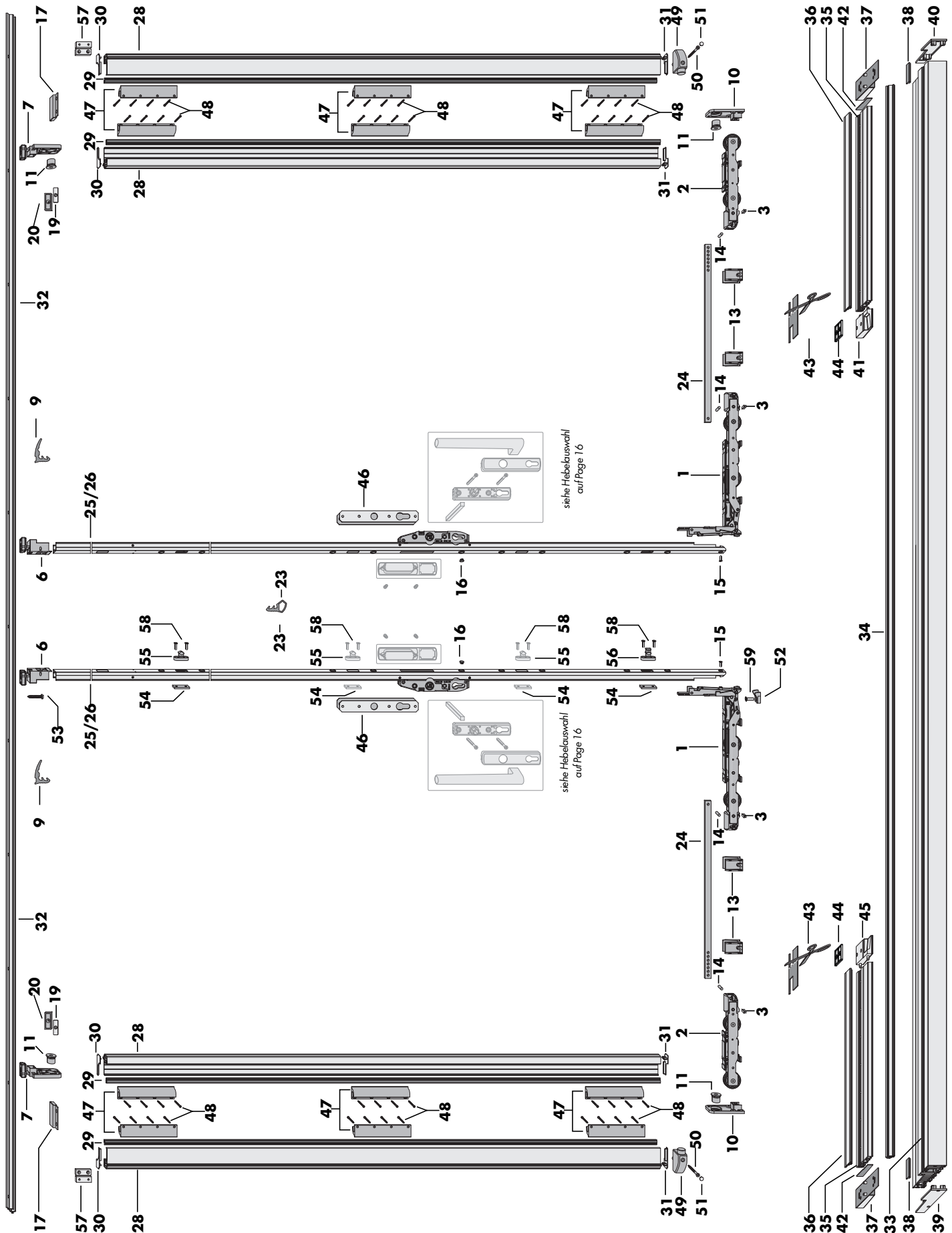


Fig. 2: Hardware diagram HS 300 scheme C

Item	Quantity scheme	PORTAL HS 300 scheme C			Material number	
		C	Description		RAL 7040 grey	RAL 9005 black
General requirements	2	Handle Si-line PORTAL HS 300			See handle selection on page 16	
	2	Basic carton HS 300 C TS consisting of:			PMKB0310-10001_	
	1	2	Bogie wheels V	VSU HS 300 TS		
	2	2	Bogie wheels H	HS 300 TS		
	3	1	Brush	Length 100 mm		
	2	Carton HS-H KH0130-01 consisting of: for guide rail KH0130-01			PMZB0350-0E601_	PMZB0350-02301_
	4	-	Locking bolt E, bottom TS			
	5	-	Locking bolt E, top TS			
	6	2	Front top guide			
	7	2	Rear top guide			
	8	-	Top filling piece	for guide rail KH0130-01		
	9	2	Top seal HH0134-05	Length 3.4 m		
	2	Bag of accessories HS-H bottom high consisting of:			PMZB0310-02101_	PMZB0310-02301_
	10	2	Bottom cover plate rear up			
	11	4	STOP			
	12	-	Bottom high filling piece	for sealing rail B made of timber		
13	4	Bottom guide				
14	4	Dowel pin 6 x 16				
15	2	M5 x 13 countersunk screw				
16	2	Bag closing cap	grey			
		Bag closing cap	brown			
1	Bag of accessories HS-H consisting of: for scheme C			239087		
52	1	Locking part G TS				
53	1	Tapping screw B6.3X38-A2				
54	2	Threaded plate M 5				
55	1	Locking part top C TS				
56	1	Locking part bottom C TS				
57	-	Stop HS 10FA	only required for sash clearance 10 mm			
58	4	Countersunk screw PZD DIN965 M5X20-A2				
59	1	Countersunk screw PZD DIN965 M6X20-A2				
2	Sealing parts set HS-H KH0130-01 IV 68 consisting of:			PMZB0450-0E601_	PMZB0450-02301_	
17	2	Sealing bridge				
18	2	Top sealing part				
19	2	Fastening plate 10				
20	2	Sealing part 10				
21	-	Bag closing cap	For sealing rail B			
22	2	Top sealing part HSK				
23	2	Seal HH0134-02	Length 17.5 m	RAL 7040 grey PDPB0030-0E601_	RAL 9005 black PDPB0030-09901_	
depending on FB	24	2	Connecting rod	Size length (in mm) FB (in mm)	719282	
				150 TS 898 720 to 1500	719480	
				200 TS 1398 1501 to 2000	719497	
				250 TS 1898 2001 to 2500	719725	
				335 TS 2748 2501 to 3350		
depending on sash height	25	2	Gear PORTAL HS 300 PZ	Size Handle height (mm) Sash height (mm)	EV 1 silver	
				170 410 1208 to 1775	PGKB0010-52401_	
			or lifting-slide sash up to 200 kg	220 1010 1776 to 2275	PGKB0020-52401_	
				260 1010 2276 to 2675	PGKB0030-52401_	
	26	2	Comfort gear PORTAL HS 300 PZ	Size Handle height (mm) Sash height (mm)	EV 1 silver	
			for lifting-slide sash up to 200 kg	220 1010 1776 to 2275	PGKB4070-52401_	
			260 1010 2276 to 2675	PGKB4080-52401_		
depending on sash height	2	Sealing rail C			RAL 7035 grey	
		Alternative: rail C in timber version.			PMZB0180-02101_	
	28	4	Sealing rail C HS	Size sash clearance (in mm) FH (in mm)		
				260 28 1208 to 2675		
29	4	Sealing profile rail C HS	Length 2.7 m			
30	4	Tilt and slide portal left sealing rail C	for sealing rail C			
31	4	Tilt and slide portal right sealing rail C				

Item	Quantity scheme C	PORTAL HS 300 scheme C			Material number		
		Description			RAL 7040 grey	RAL 9005 black	
32	1	Guiding rail KH0130-01 for FHD 68 mm	Size	length (in mm)	RAB (in mm)	EV 1 silver 130865 130889 130902 130926 130940 130964 130988	C 34 dark bronze 130872 - 130919 - 130957 - 130995
			300	2900	1470 to 3000		
			350	3400	3001 to 3500		
			400	3900	3501 to 4000		
			450	4400	4001 to 4500		
500	4900	4501 to 5000					
570	5600	5001 to 5700					
670	6600	5701 to 6700					
33	1	Threshold ECO PASS B171	300	3000	1493 to 3000	PPBB1600-52401_ PPBB1610-52401_ PPBB1620-52401_ PPBB1630-52401_ PPBB1650-52401_ PPBB1750-52401_ PPBB1660-52401_	
			350	3500	3001 to 3500		
			400	4000	3501 to 4000		
			450	4500	4001 to 4500		
			500	5000	4501 to 5000		
			570	5700	5001 to 5500		
			670	6700	5501 to 6700		
34	1	Running rail ECO PASS 5/15	350	3500	1493 to 3500	PPLB5210-52401_ PPLB6210-52401_ PPLB5220-52401_ PPLB6220-52401_ PPLB6230-52401_ PPLB5240-52401_	
			400	4000	3501 to 4000		
			450	4500	4001 to 4500		
			500	5000	4501 to 5000		
			570	5700	5001 to 5500		
			670	6700	5501 to 6700		
35	2	Support rail ECO PASS S96	Size	length (in mm)	FB (in mm)	PPZB5330-02101_ PPZB5340-02101_ PPZB5350-02101_ PPZB5060-02101_	
			150	1500	720 to 1500		
			200	2000	1501 to 2000		
			250	2500	2001 to 2500		
350	3500	2501 to 3350					
36	2	Adapter rail ECO PASS H 5 for profile timber	150	1500	720 to 1500	PPZB5480-02101_ PPZB5390-02101_ PPZB5400-02101_ PPZB5160-02101_	
			200	2000	1501 to 2000		
			250	2500	2001 to 2500		
			350	3500	2501 to 3350		
depending on RAB	1	Frame corner connection H EP B171 consisting of:	ECO PASS for timber elements			PMRB1150-02101_	
	37		1	Sealing part REV ECO PASS			
	38		1	Seal	for recess running rail REV		
	39		1	End cap, left	for threshold ECO PASS		
	40	1	End cap, right	for threshold ECO PASS			
	depending on RAB	1	Sealing part MP left consisting of:	PMRB0212-02103_			
		41		1	Sealing part MP ECO PASS left B171	for sealing between slider and fixed sash	
		42		1	End seal MP	for sealing support rail sealing block REV	
		43		1	Sealing pad H B171	on sealing block and support rail	
		44		1	Groove closing plate in groove		
	depending on RAB	1	Sealing part MP right consisting of:	PMRB0211-02103_			
		44		1	Sealing part MP ECO PASS right B171	for sealing between slider and fixed sash	
		42		1	End seal MP	for sealing support rail sealing block REV	
		43		1	Sealing pad H B171	on sealing block and support rail	
		44		1	Groove closing plate in groove		

ACCESSORIES

for anti-intruder elements

54	2	Locking part top CTS		719466
45	2	Drilling protection E		
	2	Anti-intruder unit HS	Matching for sealing rail CPMZB0180...	PMZB0190-50001_
46	12	Anti-intruder unit HS WK 2 K1		
47	50	Screw for frame part 5 x 55 mm		

for other requirements

	2	Bag stop consisting of:	RAL 7040 grey PMZB0140-0E601_	RAL 9005 black 831922
48	2	Stop		
49	2	Countersunk tapping screw B 4.8 x 70		
50	2	Tilt and slide portal		
	1	Bag of accessories HS-H for frame corner connection consisting of:	PMZB0440-10001_	
no illus.	1	Bolt Ø 7 x 40		
no illus.	1	Clamping screw 6 x 130		

Hardware components scheme G2 / G3

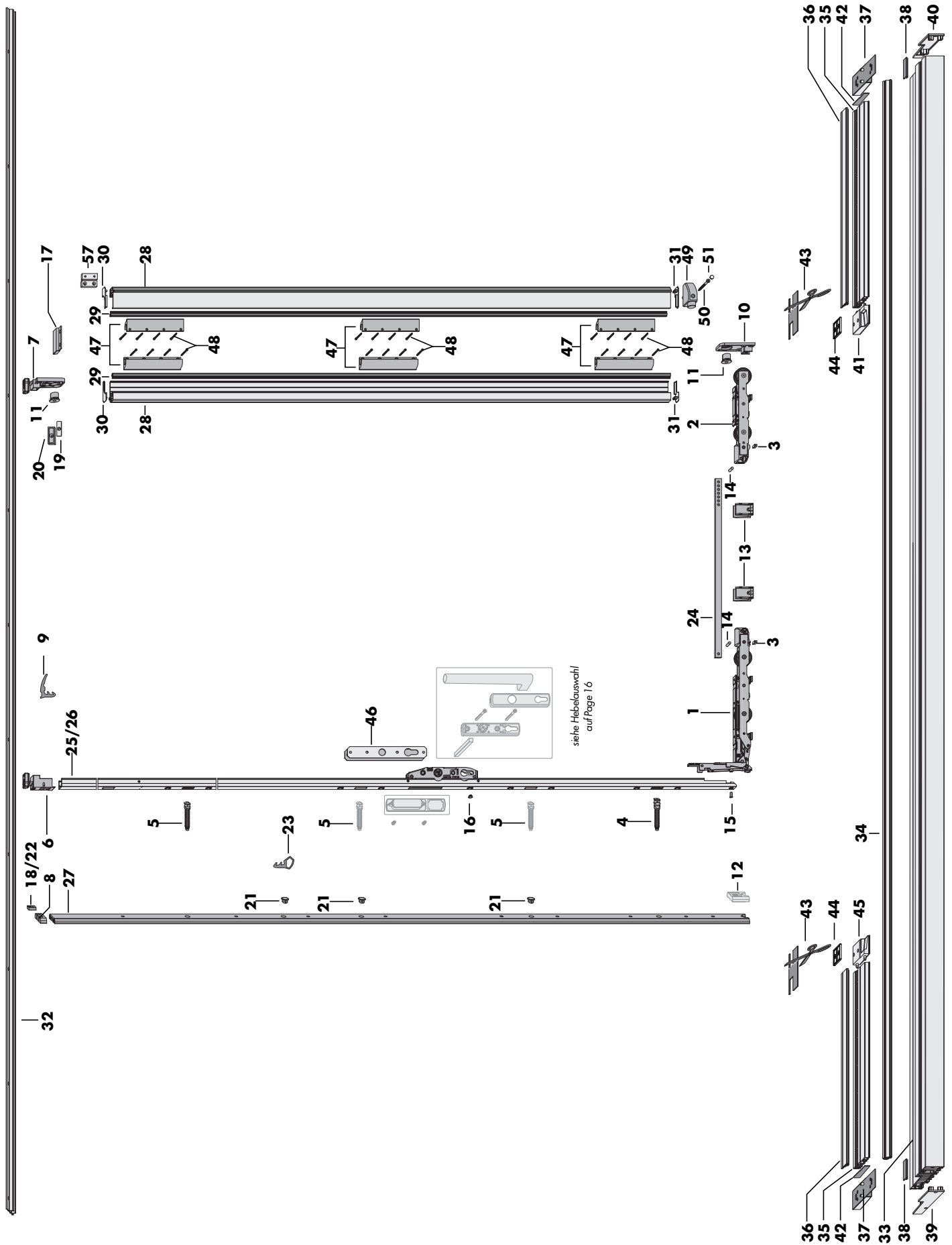


Fig. 3: Hardware diagram HS 300 scheme G 2 and G 3

Last update: 14.4.2014

Item	Quantity scheme		PORTAL HS 300 scheme G2 / G3			Material number	
	G 2	G 3	Description			RAL 7040 grey	RAL 9005 black
General requirements	1	1	Handle Si-line PORTAL HS 300			See handle selection on page 16	
	1	1	Basic carton HS 300 H TS consisting of:			PMKB0300-10001_	
	1	1	Bogie wheels V	VSU HS 300 TS			
	2	1	Bogie wheels H	HS 300 TS			
	3	1	Brush	Length 100 mm			
	1	1	Carton HS-H KH0130-01 for guide rail KH0130-01 consisting of:			PMZB0350-0E601_	PMZB0350-02301_
	4	1	Locking bolt E, bottom TS				
	5	1	Locking bolt E, top TS				
	6	1	Front top guide				
	7	1	Rear top guide				
	8	1	Top filling piece	for guide rail KH0130-01			
	9	1	Top seal HH013405	Length 3.4 m			
	1	1	Bag of accessories HS-H bottom high consisting of:			PMZB0310-02101_	PMZB0310-02301_
	10	1	Bottom cover plate rear up				
	11	2	STOP				
	12	1	Bottom high filling piece				
	13	2	Bottom guide				
	14	2	Dowel pin 6 x 16				
	15	1	M5 x 13 countersunk screw				
	16	1	Bag closing cap	grey			
			Bag closing cap	brown			
	1	1	Sealing parts set HS-H KH0130-01 IV 68 consisting of:			PMZB0450-0E601_	PMZB0450-02301_
	17	1	Sealing bridge				
18	1	Top sealing part					
19	1	Fastening plate 10					
20	1	Sealing part 10					
21	3	Bag closing cap	For sealing rail B				
22	1	Top sealing part HSK					
23	1	1	Seal HH0134-02	Length 17.5 m	RAL 7040 grey PDPB0030-0E601_	RAL 9005 black PDPB0030-09901_	
depending on FB	24	1	1	Connecting rod	Size length (in mm) FB (in mm)	719282 719480 719497 719725	
					150 TS 898 720 to 1500		
					200 TS 1398 1501 to 2000		
					250 TS 1898 2001 to 2500		
					335 TS 2748 2501 to 3350		
depending on sash height	25	1	1	Gear PORTAL HS 300 PZ	Size Handle height (mm) Sash height (mm)	EV 1 silver PGKB0010-52401_ PGKB0020-52401_ PGKB0030-52401_	
					170 410 1208 to 1775		
					220 1010 1776 to 2275		
					260 1010 2276 to 2675		
					or lifting-slide sash up to 200 kg		
	26	1	1	Comfort gear PORTAL HS 300 PZ	Size Handle height (mm) Sash height (mm)	EV 1 silver PGKB4070-52401_ PGKB4080-52401_	
					220 1010 1776 to 2275		
					260 1010 2276 to 2675		
					for lifting-slide sash up to 200 kg		
	27	1	1	Sealing rail B Alternative: rail B in timber version.	Size FH (in mm)	RAL 7040 grey PPDB0010-0E601_	RAL 9005 black PPDB0010-02301_
				260 1208 to 2675			
	1	1	Sealing rail C Alternative: rail C in timber version.	Size sash clearance (in mm) FH (in mm)	RAL 7035 grey PMZB0180-02101_		
28	2	2	Sealing rail C HS	260 28 1208 to 2675			
29	2	2	Sealing profile rail C HS	Length 2.7 m			
30	2	2	Tilt and slide portal left sealing rail C	for sealing rail C			
31	2	2	Tilt and slide portal right sealing rail C				

Item	Quantity scheme		PORTAL HS 300 scheme G2 / G3				Material number	
	G 2	G 3	Description				RAL 7040 grey	RAL 9005 black
32	1	1	Guiding rail KH0130-01 for FHD 68 mm	Size	length (in mm)	RAB (in mm)	EV 1 silver 130865 130889 130902 130926 130940 130964 130988	C 34 dark bronze 130872 - 130919 - 130957 - 130995
				300	2900	1470 to 3000		
				350	3400	3001 to 3500		
				400	3900	3501 to 4000		
				450	4400	4001 to 4500		
500	4900	4501 to 5000						
570	5600	5001 to 5700						
670	6600	5701 to 6700						
33	1	1	Threshold ECO PASS B171	300	3000	1493 to 3000	PPBB1600-52401_ PPBB1610-52401_ PPBB1620-52401_ PPBB1630-52401_ PPBB1650-52401_ PPBB1750-52401_ PPBB1660-52401_	
				350	3500	3001 to 3500		
				400	4000	3501 to 4000		
				450	4500	4001 to 4500		
				500	5000	4501 to 5000		
				570	5700	5001 to 5500		
				670	6700	5501 to 6700		
34	1	1	Running rail ECO PASS 5/15	350	3500	1493 to 3500	PPLB5210-52401_ PPLB6210-52401_ PPLB5220-52401_ PPLB6220-52401_ PPLB6230-52401_ PPLB5240-52401_	
				400	4000	3501 to 4000		
				450	4500	4001 to 4500		
				500	5000	4501 to 5000		
				570	5700	5001 to 5500		
				670	6700	5501 to 6700		
				35	2	2		Support rail ECO PASS 596
150	1500	720 to 1500						
200	2000	1501 to 2000						
250	2500	2001 to 2500						
350	3500	2501 to 3350						
36	2	2	Adapter rail ECO PASS H 5 for profile timber	150	1500	720 to 1500	PPZB5480-02101_ PPZB5390-02101_ PPZB5400-02101_ PPZB5160-02101_	
				200	2000	1501 to 2000		
				250	2500	2001 to 2500		
				350	3500	2501 to 3350		

depending on RAB	37	1	1	Frame corner connection H EP B171 consisting of:	ECO PASS for timber elements	PMRB1150-02101_			
	38	1	1	Sealing part REV ECO PASS					
	39	1	1	Seal	for recess running rail REV				
	40	1	1	End cap, left	for threshold ECO PASS				
	40	1	1	End cap, right	for threshold ECO PASS				
	depending on RAB	41	1	1	Sealing part MP left consisting of:	For DIN left	PMRB0212-02103_		
		42	1	1	Sealing part MP ECO PASS left B171	for sealing between slider and fixed sash			
		43	1	1	End seal MP	for sealing support rail sealing block REV			
		44	1	1	Sealing pad H B171	on sealing block and support rail			
		44	1	1	Groove closing plate in groove				
		44	1	1	Sealing part MP right consisting of:	For DIN right		PMRB0211-02103_	
						Sealing part MP ECO PASS right B171			for sealing between slider and fixed sash
						End seal MP			for sealing support rail sealing block REV
Sealing pad H B171	on sealing block and support rail								
44	1	1	Groove closing plate in groove						

ACCESSORIES

for anti-intruder elements

5	2	2	Locking bolt E, top TS		719152
45	1	1	Drilling protection E		
46	6	6	Anti-intruder unit HS	Matching for sealing rail CPMZB0180...	PMZB0190-50001_
47	25	25	Anti-intruder unit HS WK 2 K1		
			Screw for frame part 5 x 55 mm		

for other requirements

depending on RAB	48	1	1	Bag stop consisting of:	RAL 7040 grey PMZB0140-0E601_	RAL 9005 black 831922
	49	1	1	Stop		
	50	1	1	Countersunk tapping screw B 4.8 x 70		
	50	1	1	Tilt and slide portal		
	50	1	1			
no illus.	1	1	Bag of accessories HS-H for frame corner connection consisting of:	Bolt Ø 7 x 40	PMZB0440-10001_	
				Bolt Ø 7 x 40		
				Clamping screw 6 x 130		

Hardware components accessories for threshold ECO PASS

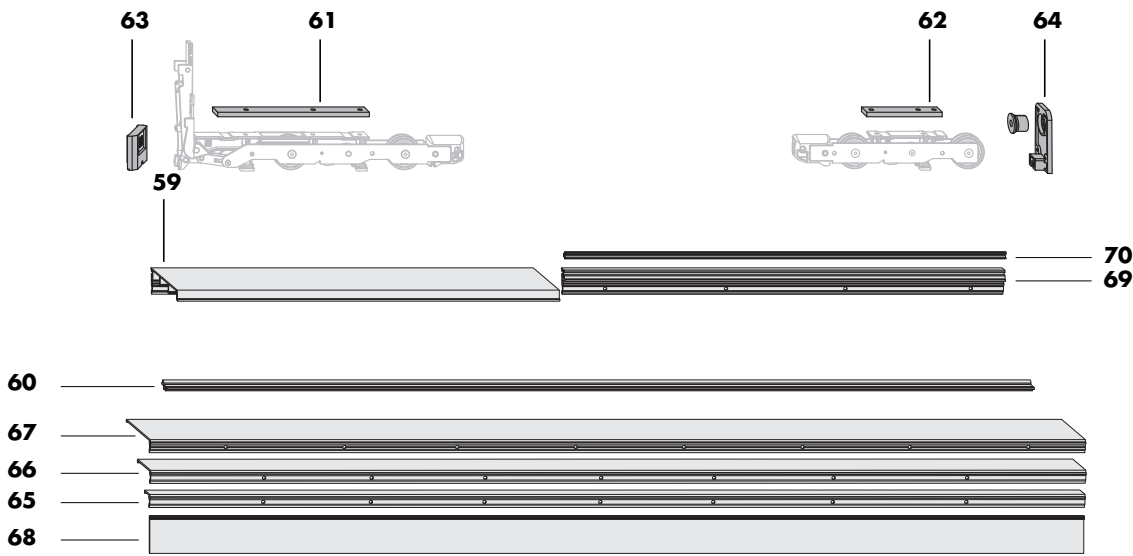


Fig. 4: Hardware diagram PORTAL HS accessories for threshold ECO PASS

Item	Quantity scheme				PORTAL HS 300 Description	Material number	
	A	C	G2	G3		RAL 7040 grey	RAL 9005 black

ACCESSORIES

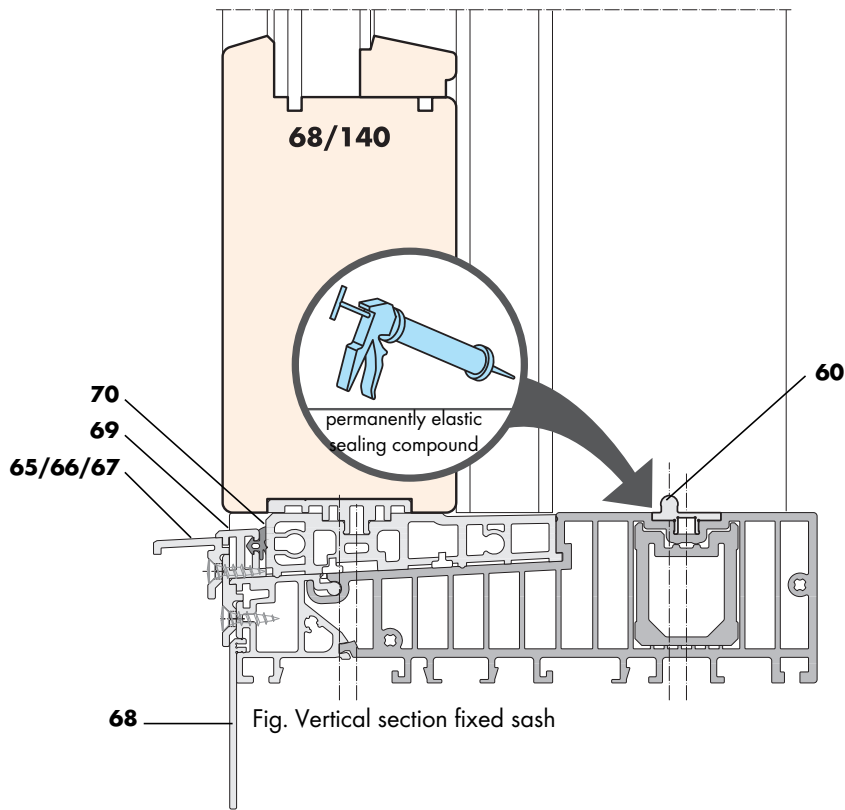
for barrier-free elements

Item	A	C	G2	G3	Description	Size	length (in mm)	RAB (in mm)	Material number	
									RAL 7040 grey	RAL 9005 black
60	1	1	1	1	Threshold ECO PASS B171	200	2000	1493 to 4000	PPTB0180-52401_ PPTB0190-52401_ PPTB0040-52401_	
61	1	1	1	1	Running rail ECO PASS 5/5	350	3500	1493 to 3500	PPLB5180-52401_ PPLB6240-52401_	
						400	4000	3501 to 4000	PPLB5190-52401_ PPLB6190-52401_	
						450	4500	4001 to 4500	PPLB6200-52401_ PPLB6250-52401_	
						500	5000	4501 to 5000		
						570	5700	5001 to 5500		
						670	6700	5501 to 6700		
	1	1	1	1	Bag sash parts HS barrier-free				PMZB0200-09701_	
62	1	1	1	1	Distance plate long				for bogie wheels front	
63	1	1	1	1	Distance plate short				for bogie wheels back	
no illus.	5	5	5	5	Countersunk tapping screw B 4.8 x 45					
64	1	-	1	1	Filling piece, bottom low				PDIB0120-0E601_	PDIB0120-02301_
65	1	1	1	1	Cover plate, bottom rear low				PAPB0060-0E601_	PAPB0060-02301_

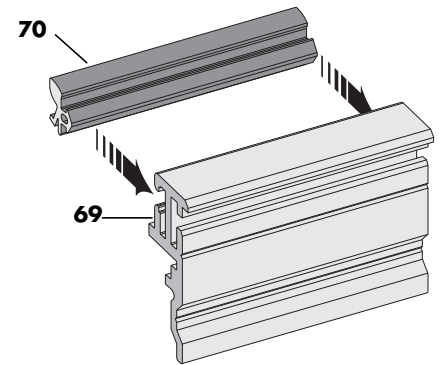
for other requirements

Item	A	C	G2	G3	Description	Size	length (in mm)	RAB (in mm)	Material number	
									RAL 7040 grey	RAL 9005 black
66					Weatherside profile ECO PASS B 20	450	4500	1493 to 4500	PPWB0010-52401_ PPWB0020-52401_	
						670	6700	4501 to 6700		
67	1	1	1	1	Weatherside profile ECO PASS B 50	450	4500	1493 to 4500	PPWB0030-52401_ PPWB0040-52401_	
						670	6700	4501 to 6700		
68					Weatherside profile ECO PASS B 90	450	4500	1493 to 4500	PPWB0090-52401_ PPWB0100-52401_	
						670	6700	4501 to 6700		
69	1	1	1	1	Sealing plate	450	4500	1493 to 4500	PPAB0070-52401_ PPAB0080-52401_	
						670	6700	4501 to 6700		
	1	1	1	1	Carton support rail ¹⁾	450	4500	1493 to 6700	PPZB0250-52401_	
70	1	1	1	1	Compensation rail					
71	1	1	1	1	Seal					

¹⁾ required when threshold is used
further threshold component sizes on request

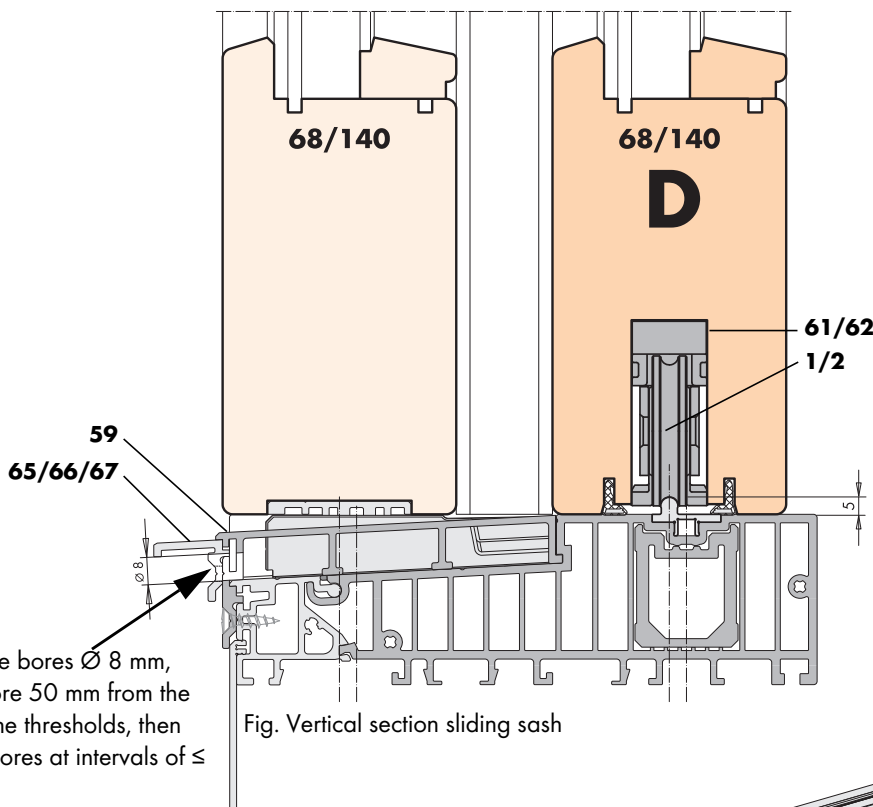


for barrier-free elements in accordance with DIN 18040



Note:

- First insert seal (70) into support rail (69).
- Then mount support rail (69) to threshold.
- If the cover plate (68) is used this **must** be mounted prior to the mounting of the threshold (59) and the support rail (69).



Important note:

- Seal the threshold components and seal between the threshold and masonry or facade observing the applicable rules in craftsmanship as set down in DIN 18195 section 5 paragraph 8. 1. 5.
- PORTAL HS elements may not be installed without providing appropriate drainage and weather protection.

Drainage bores \varnothing 8 mm, initial bore 50 mm from the end of the thresholds, then further bores at intervals of \leq 500 mm

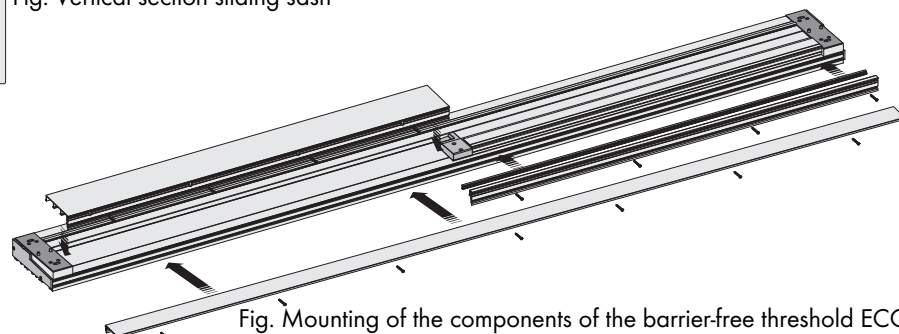


Fig. 5: Barrier-free ECO PASS threshold

Hardware components for elements with sash weight 300 - 400 kg

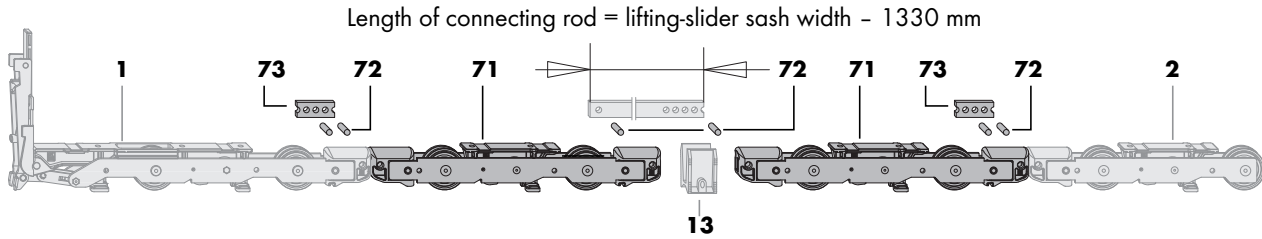


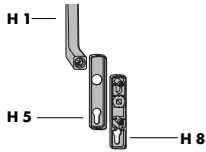
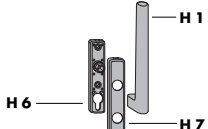
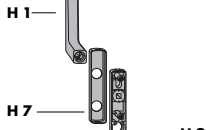
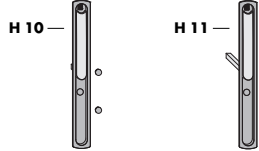
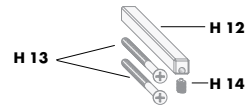


Fig. 6: Hardware diagram HS 400

For the sash weight 300 - 400 kg, the connecting rod **must** be fastened to the bogie wheels with a dowel pin 6 x 16 (72).

Item	Quantity scheme				PORTAL HS 400		Material number	
	A	C	G2	G3	Description	RAL 7040 grey	RAL 9005 black	
	1	2	1	1	Additional carton HS 400 HTS For the lifting-slider sash 300 to 400 kg, use the following hardware components in addition to PMKB0300-10001_:	PMKB0340-10001_		
72	2	4	2	2	Bogie wheels M HS 300 TS			
73	6	12	6	6	Dowel pin 6 x 16			
74	2	4	2	2	Connecting rod Length 40 mm			
26	1	2	1	1	Comfort gear PORTAL HS 300 PZ (Length = FH-115)	Size	Handle height (mm)	Sash height (mm)
						220	1010	1776 to 2275
						260	1010	2276 to 2675
							EV 1 silver PGKB4070-52401_	EV 1 silver PGKB4070-52401_ PGKB4080-52401_

Handle selection

Item	Pc.	Description	Colour	Material number
	1	Carton handle Si-line PORTAL HS 300 consisting of:	RAL 9003 signal white RAL 8022 black brown EV 1 silver	PMHB0010-50201_ PMHB0010-51201_ PMHB0010-52401_
H 1	1	Handle HS 300 Si-line		
H 2	1	Rose Si-line HS 300, inside		
H 3	1	Tilt and slide portal Si-line HS 300		
H 4	1	Recessed pull handle Si-line		
	1	Carton handle Si-line PORTAL HS 300 PZ consisting of: <i>For lockable elements - with profile cylinder inside</i>	RAL 9003 signal white RAL 8022 black brown EV 1 silver	PMHB0020-50201_ PMHB0020-51201_ PMHB0020-52401_
H 1	1	Handle HS 300 Si-line		
H 2	1	Rose Si-line HS 300, inside		
H 5	1	Tilt and slide portal Si-line HS 300 PZ		
H 4	1	Recessed pull handle Si-line		
	1	Carton handle Si-line PORTAL HS 300 RZ A0089 consisting of: <i>For lockable elements - with profile cylinder inside for subsequent retrofitting with RZ</i>	RAL 9003 signal white EV 1 silver	PMHB0110-50201_ PMHB0110-52401_
H 1	1	Handle HS 300 Si-line		
H 6	1	Rose Si-line HS 300 RZ inside		
H 3	1	Tilt and slide portal Si-line HS 300		
	1	Tilt and slide portal RZ A0089 consisting of: <i>For lockable elements - with profile half cylinder inside required for subsequent retrofitting with RZ</i>	RAL 9003 signal white EV 1 silver	PKHB0060-50201_ PKHB0060-52401_
H 7	1	Tilt and slide portal Si-line HS 300 RZ A0089		
	1	Carton handle Si line PORTAL HS 300 PZ inside consisting of: <i>For lockable elements - with profile half cylinder inside and outside Only in conjunction with handle Si-line HS 300 PZ outside</i>	RAL 9003 signal white RAL 8022 black brown EV 1 silver	PMHB0050-50201_ PMHB0050-51201_ PMHB0050-52401_
H 1	1	Handle HS 300 Si-line		
H 2	1	Rose Si-line HS 300, inside		
H 5	1	Tilt and slide portal Si-line HS 300 PZ		

Item	Pc.	Description	Colour	Material number
<p>1 Carton handle Si line PORTAL HS 300 PZ outside For lockable elements - with profile half cylinder inside and outside consisting of: Only in conjunction with handle Si-line HS 300 PZ inside</p>				
H 1	1	Handle HS 300 Si-line	RAL 9003 signal white	PMHB0040-50201_
H 8	1	Rose Si-line HS 300 outside	RAL 8022 black brown	PMHB0040-51201_
H 5	1	Tilt and slide portal Si-line HS 300 PZ	EV 1 silver	PMHB0040-52401_
				
<p>1 Carton handle Si line PORTAL HS 300 PZ inside A0089 For lockable elements - with profile half cylinder inside and outside consisting of: Only in conjunction with handle Si-line HS 300 RZ outside</p>				
H 1	1	Handle HS 300 Si-line	RAL 9003 signal white	PMHB0130-50201_
H 6	1	Rose Si-line HS 300 RZ inside	EV 1 silver	PMHB0130-52401_
H 7	1	Tilt and slide portal Si-line HS 300 RZ A0089		
				
<p>1 Carton handle Si line PORTAL HS 300 RZ outside A0089 For lockable elements - with profile half cylinder inside and outside consisting of: Only in conjunction with handle Si-line HS 300 RZ inside</p>				
H 1	1	Handle HS 300 Si-line	RAL 9003 signal white	PMHB0120-50201_
H 9	1	Rose Si-line HS 300 RZ outside	EV 1 silver	PMHB0120-52401_
H 7	1	Tilt and slide portal Si-line HS 300 RZ A0089		
				
<p>1 Carton pop up handle HS 300 inside consisting of:</p>				
H 10	1	Pop up handle HS 300 inside with 40 mm spindle length	RAL 9003 signal white	PHIB0050-00201_
			RAL 8022 black brown	PHIB0050-01201_
			Si-silver	PHIB0050-02501_
<p>1 Carton pop up handle HS 300 inside consisting of:</p>				
H 11	1	Pop up handle HS 300 inside with 100 mm spindle length	RAL 9003 signal white	PHIB0090-00201_
			RAL 8022 black brown	PHIB0090-01201_
			Si-silver	PHIB0090-02501_
				
<p>Bag of accessories HS 200/300 handle consisting of:</p>				
H 12	1	Square spindle □10 mm		
H 13	2	Countersunk screw M5 x ...		
H 14	1	Rivet M 6 x 8		
				
	1	Bag of accessories HS 200/300 handle for sash timber width 58 mm		PMZB0230-10001_
	1	Bag of accessories HS 200/300 handle for sash timber width 68 mm		PMZB0240-10001_
	1	Bag of accessories HS 200/300 handle for sash timber width 78 mm		PMZB0250-10001_
	1	Bag of accessories HS 200/300 handle for sash timber width 82 mm		PMZB0260-10001_
	1	Bag of accessories HS 200/300 handle for sash timber width 92 mm		PMZB0270-10001_
	1	Bag of accessories HS 200/300 handle for sash timber thickness 50 - 92mm		PMZB0280-10001_
	1	Bag of accessories HS 200/300 handle for sash timber thickness 80 - 120mm		PMZB0490-10001_
<p>1 Escutcheon HS 200/300 consisting of:</p>				
H 15	1	Cover rose Si-line outside	RAL 9003 signal white	PHZB0030-50201_
			RAL 8022 black brown	PHZB0030-51201_
			Si-silver	PHZB0030-52501_
				
H 16	2	Sleeve nut M 5 For handle fixation without sliding grip or escutcheon		800287
				

Installation

Threshold ECO PASS

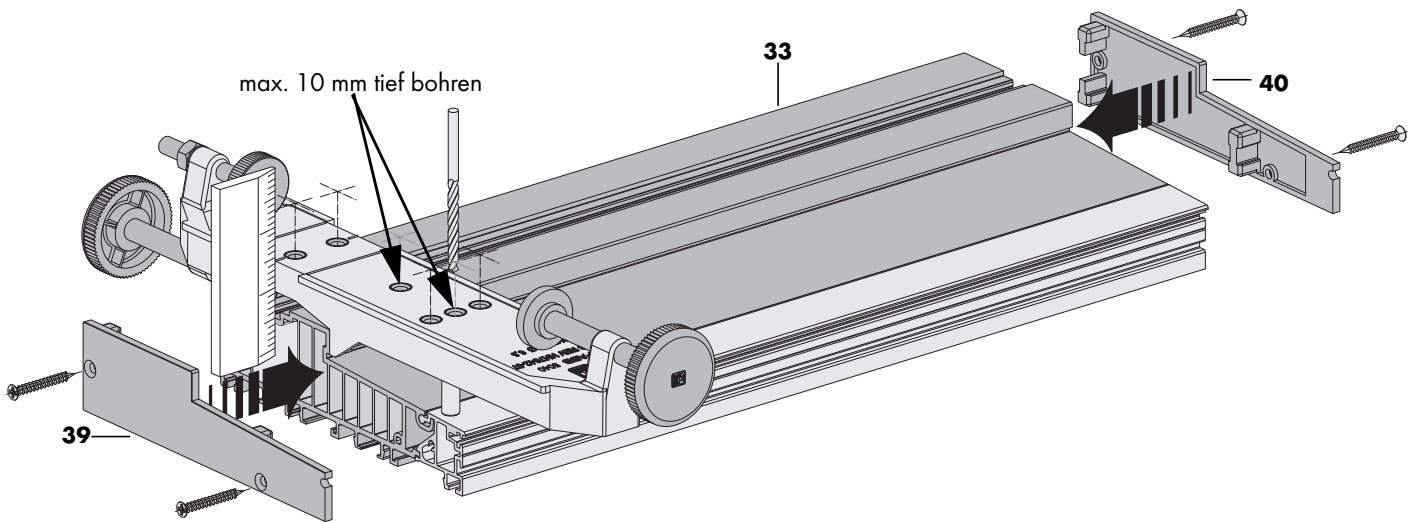


Fig. 7: Bores for frame corner connection H EP B171 (37) and mounting of the end cap, left (39) and end cap, right (40)

- › Trim the threshold ECO PASS (33) to the required length.
- › Position the jig HS REV flush with the outer edge at both sides of the threshold ECO PASS (33).
- › Drill bores \varnothing 6.5 mm for fixing screws and centering spigot
- › Mount end cap, left (39) and end cap, right (40)

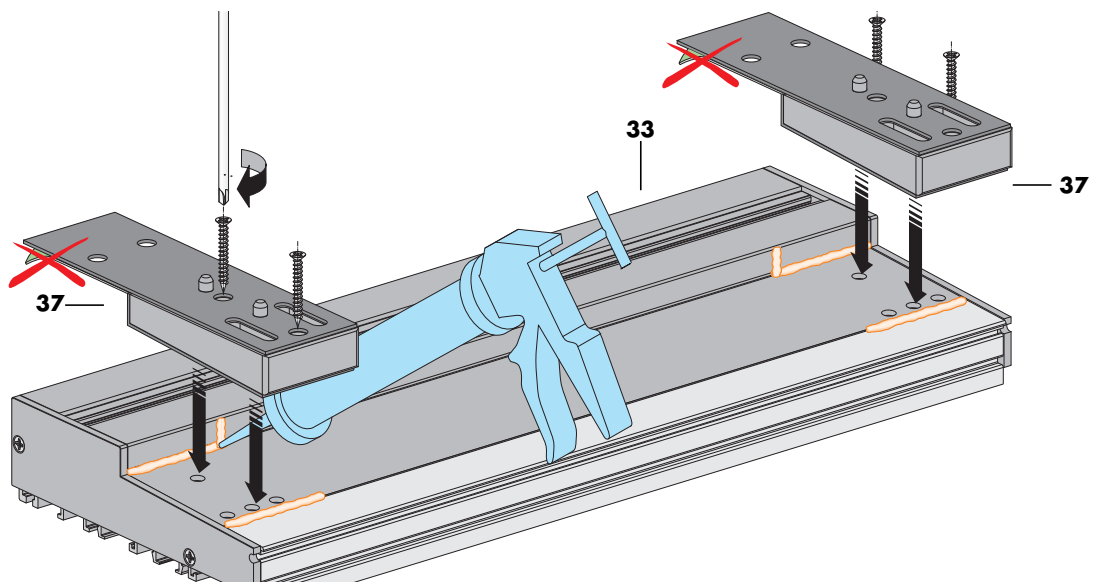


Fig. 8: Sealing the frame corner connection H EP B171 (37) to threshold ECO PASS (33)

- › Apply permanently elastic sealing compound to the points indicated in the diagram.
- › Do not remove protective foil from the seal of the frame corner connection H EP B171 (37)!
- › Position frame corner connection H EP B171 (37) on threshold ECO PASS (33) and fasten with window screws 4.8 x 50 mm.

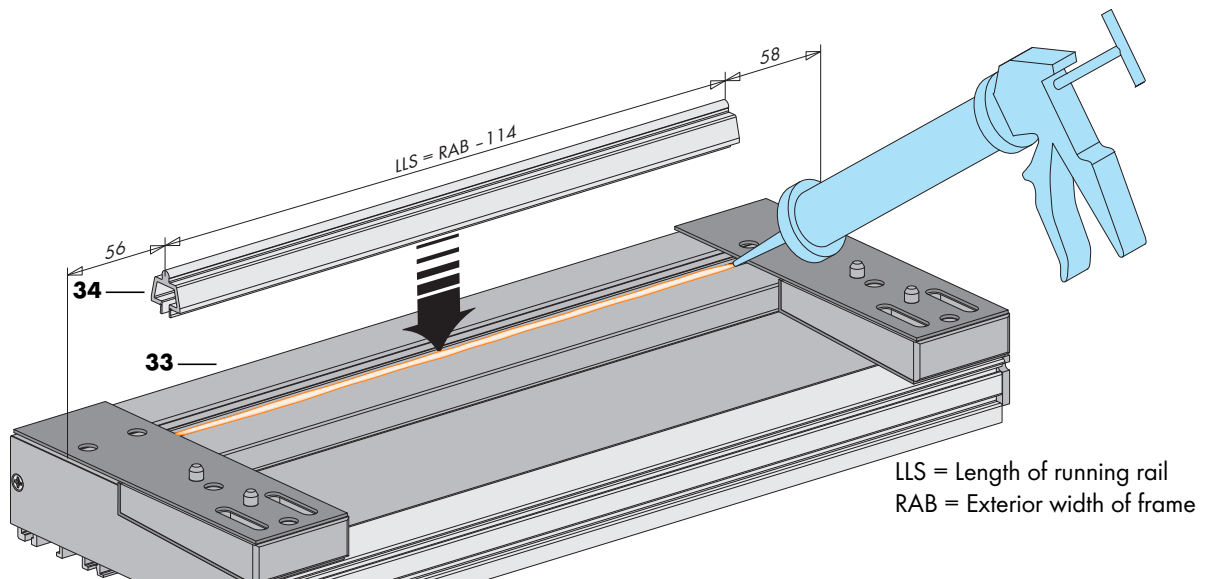


Fig. 9: Mounting the running rail ECO PASS 5/15 (34) to threshold ECO PASS (33)

- > Apply permanently elastic sealing compound to the points indicated in the diagram.
- > Press running rail ECO PASS 5/15 (34) into threshold ECO PASS (33)

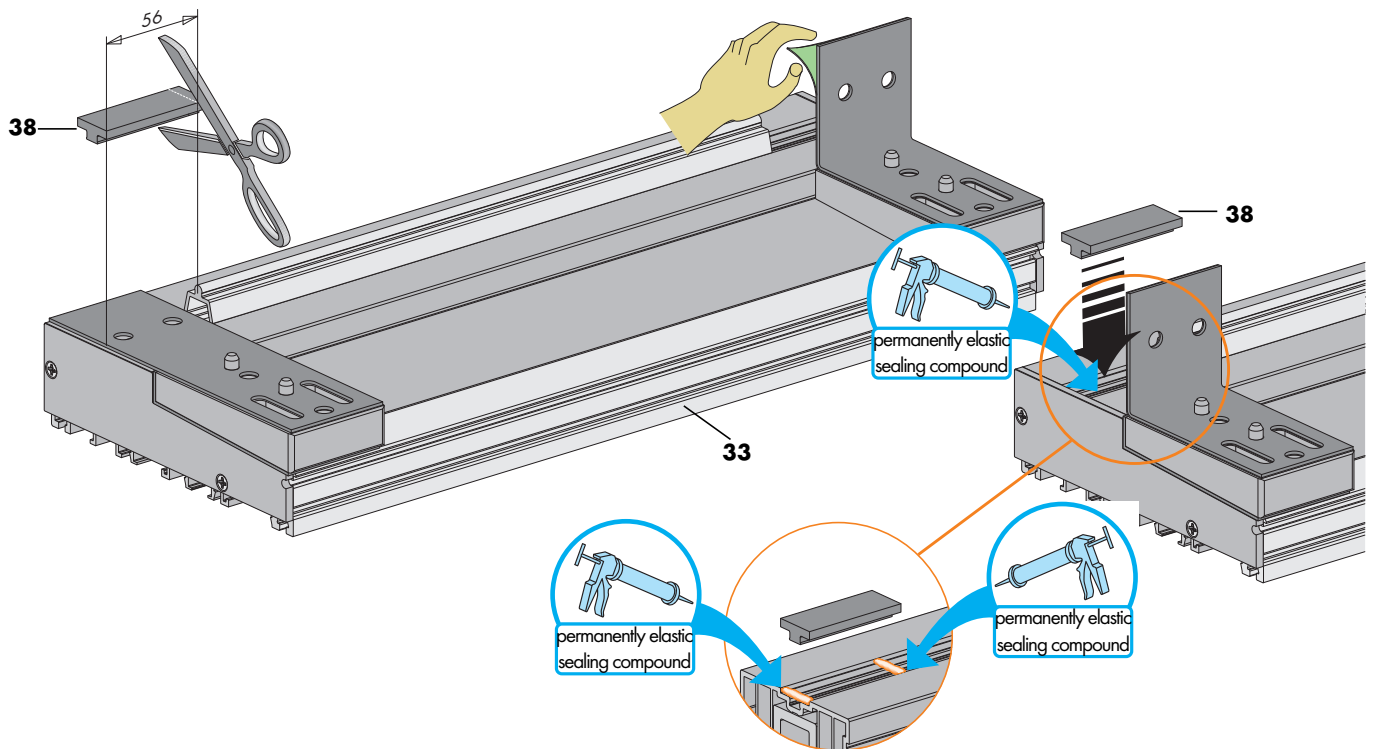


Fig. 10: Mounting the seal (38) to threshold ECO PASS (33)

- > Apply permanently elastic sealing compound to the points indicated in the diagram.
- > Press seal (38) to both ends of threshold ECO PASS (33)

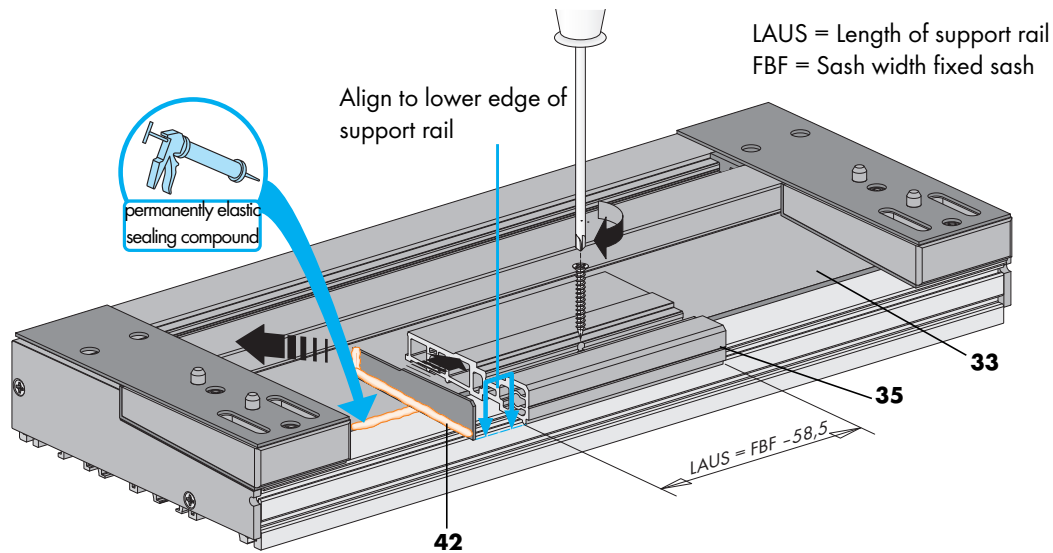


Fig. 11: Mounting the end seal MP (42) and support rail ECO PASS S96 (35) to threshold ECO PASS (33)

- > Trim the support rail ECO PASS S96 (35) to the required length.
- > Clean up the adhesion point on the support rail ECO PASS S96 (35) and remove any saw burr.
- > Adhere end seal MP (42) to the support rail ECO PASS S96 (35).
- > Apply permanently elastic sealing compound to the points indicated in the diagram.
- > Position support rail ECO PASS S96 (35) on the threshold ECO PASS (33) and in the corner, press against the frame corner connection H EP B171 (37) and threshold ECO PASS (33) and fasten with window screws 4.8 x 50 mm.

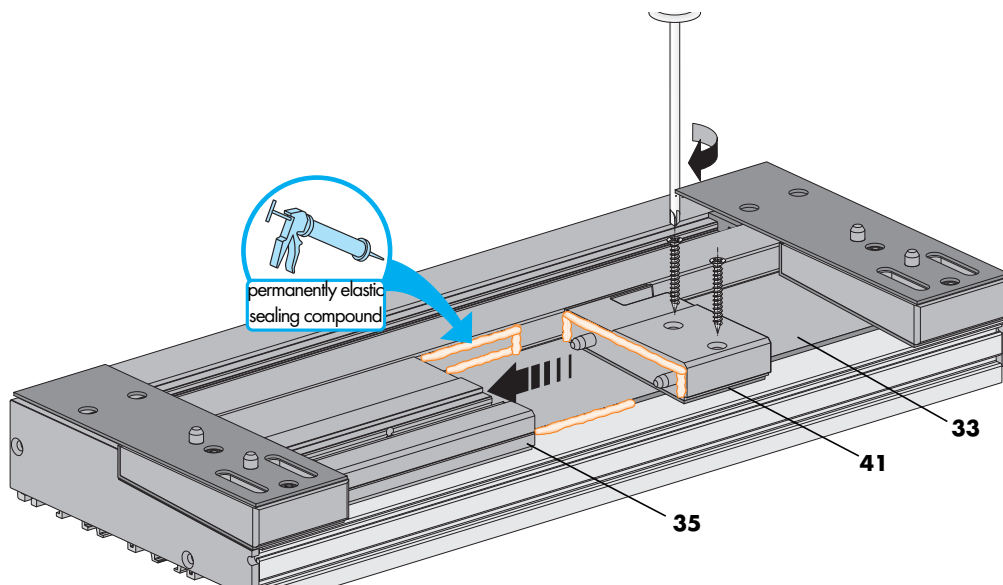
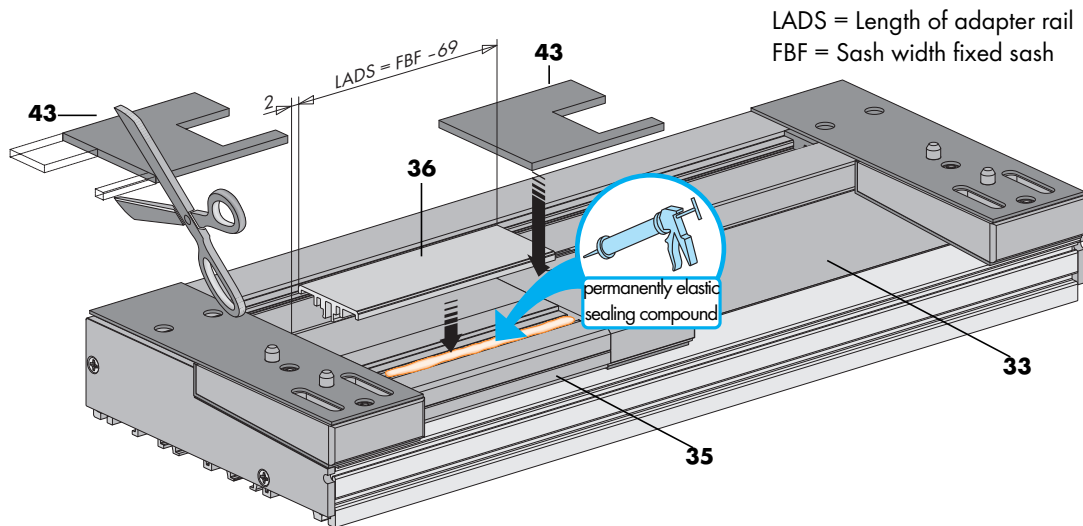


Fig. 12: Mounting the sealing part MP ECO PASS links B171 (41) to support rail ECO PASS S96 (35)

- > Apply permanently elastic sealing compound to the points indicated in the diagram.
- > Position sealing part MP ECO PASS links B171 (41) onto threshold ECO PASS (33), press into the support rail ECO PASS S96 (35) with the cam and fasten with window screws 4.8 x 50 mm.



LADS = Length of adapter rail
 FBF = Sash width fixed sash

Fig. 13: Adhering the sealing pad H B171 (43) to support rail ECO PASS S96 (35) and sealing part MP ECO PASS left B171 (41)

- > Trim the sealing pad H B171 (43) according to the DIN direction (diagram shows DIN left).
- > Clean up the adhesion point on the sealing part MP ECO PASS left B171 (41) and threshold ECO PASS (33).
- > Adhere sealing pad H B171 (43) to sealing part MP ECO PASS left B171 (41) threshold ECO PASS (33).
- > Trim the adapter rail ECO PASS H 5 (36) to the required length.
- > Apply permanently elastic sealing compound to the points indicated in the diagram.
- > Clip adapter rail ECO PASS H 5 (36) onto support rail ECO PASS S96 (35).

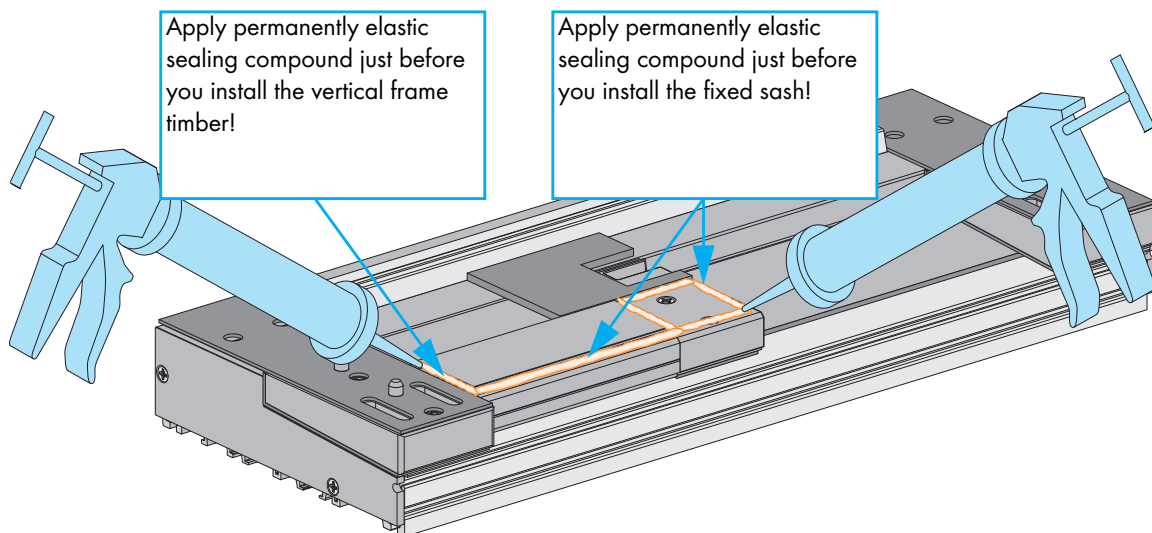


Fig. 14: Threshold ECO PASS (33) is ready for the installation of the frame timber and fixed sash

Hardware components on sliding sash

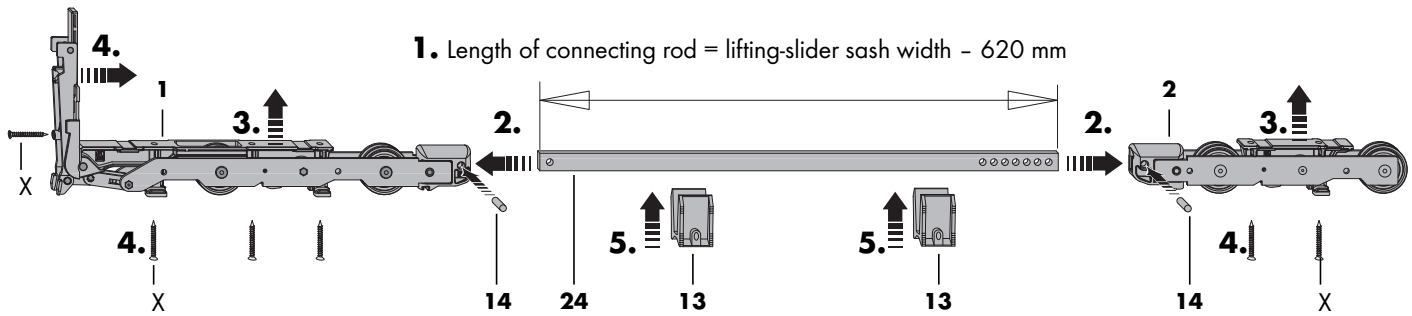


Fig. 15: Mounting the bogie wheels V (1) and bogie wheels H (2) with connecting rod (24)

- > **1.** Trim the connecting rod (24) to the required length. Minimum length of connecting rod (24) = 40 mm
- > **2.** Insert connecting rod (24) with coupling piece into bogie wheels V (1) and fasten with dowel pin 6 x 16 (14).
- > Then insert connecting rod (24) with coupling piece into bogie wheels H (2) and fasten with dowel pin 6 x 16 (14).
- > **3.** Insert bogie wheel unit into lifting-slider sash and press against the lower sash timber.
- > **4.** Press the bogie wheel unit against the vertical sash timber and bottom sash timber and screw on tightly with a window screw 4.8 x 50.
- > **5.** Press the guide, below (13) into the fitting groove

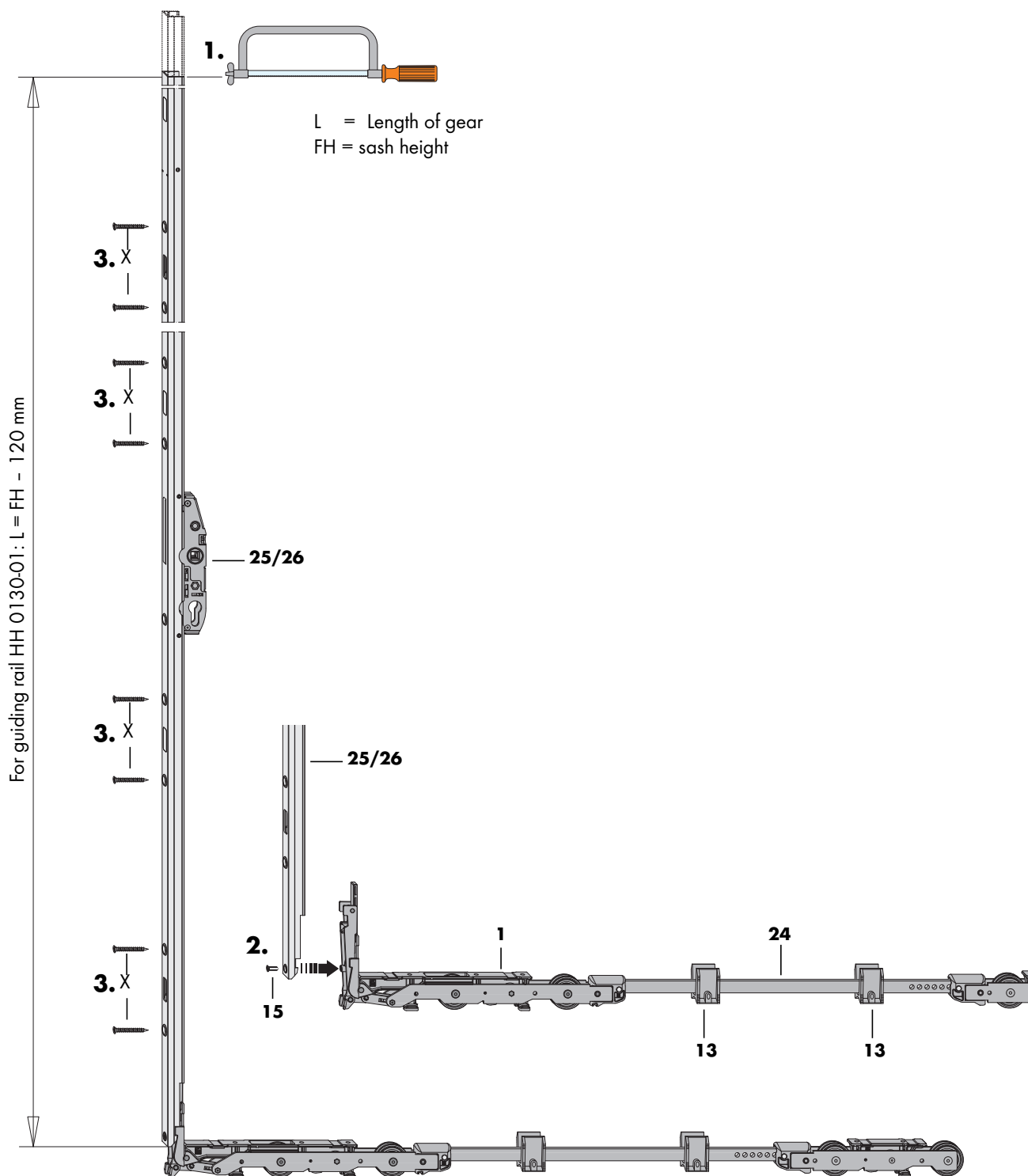


Fig. 16: Mounting the gear (25/26) in the slider sash

- > **1.** Trim the gear PORTAL HS 300-PZ (25/26) to the required length.
For guiding rail KH 0130-01 length of gera = sash height - 120 mm.
- > Clean up the gear PORTAL HS 300-PZ (25/26) and remove any saw burr.
- > **2.** Mount gear PORTAL HS 300-PZ (25/26) to bogie wheels using a countersunk screw M5 x 13 (15).
- > **3.** Mount gear PORTAL HS 300-PZ (25/26) using a window screw 4.8 x 50 (X) in the lifting-slider sash.

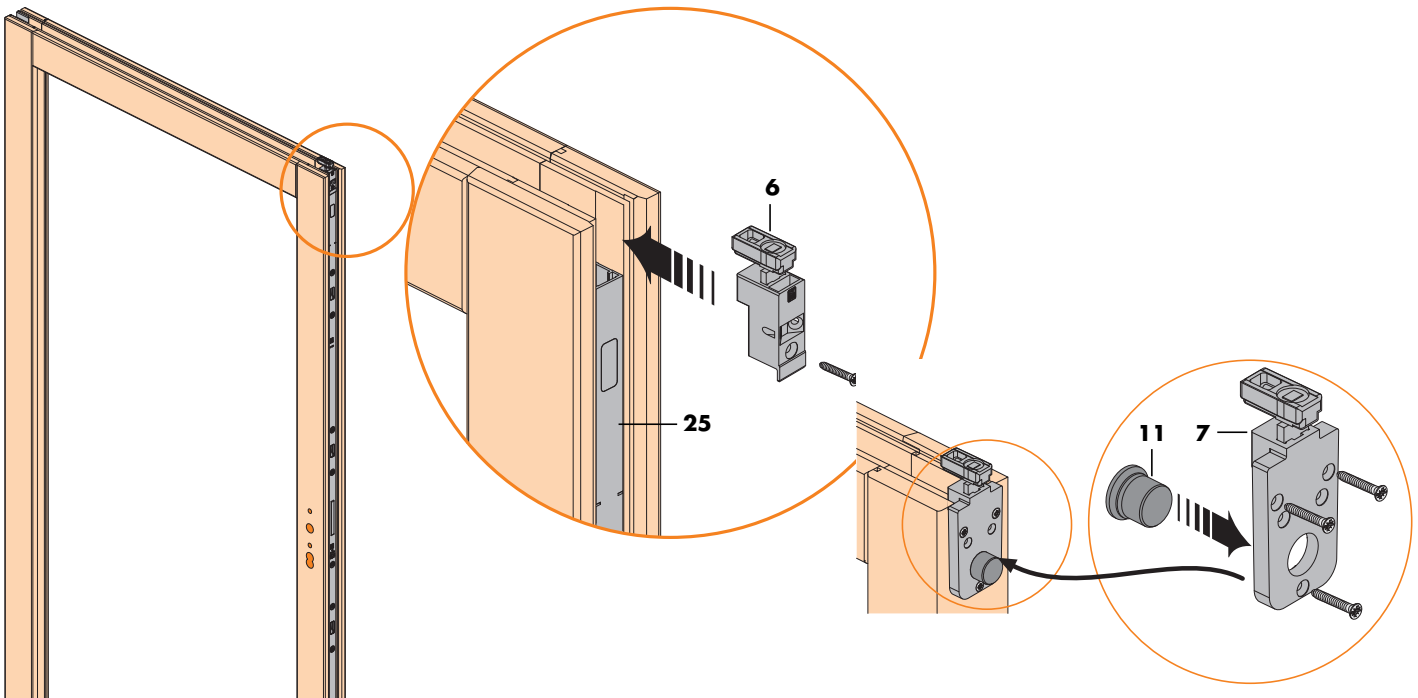


Fig. 17: Mounting the top front guide (6) and stop (11) top rear guide (7) to the slider sash

- > Insert guide, top front (6) into top sliding sash overlying the gear sleeve and fasten tightly.
- > Press stop (11) into guide, top rear (7).
- > Insert guide, top rear (7) into top sliding sash overlying the hardware groove and fasten tightly.

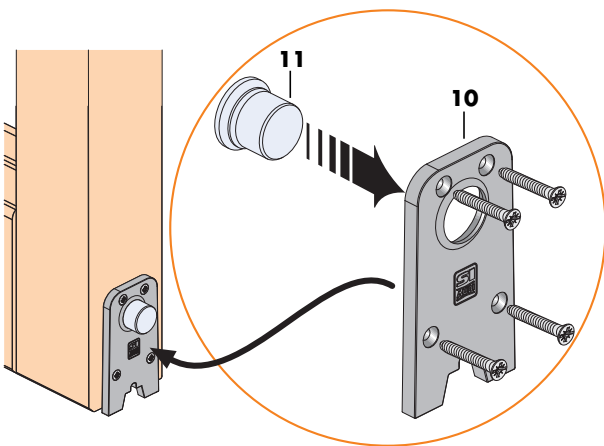


Fig. 18: Mounting the stop (11) with cover plate, bottom rear high (10) to the sliding sash

- > Press stop (11) against the cover plate, bottom rear high (10).
- > Mount cover plate, bottom rear high (10) on the lowered lifting-slider sash rear bottom flush with the running rail.

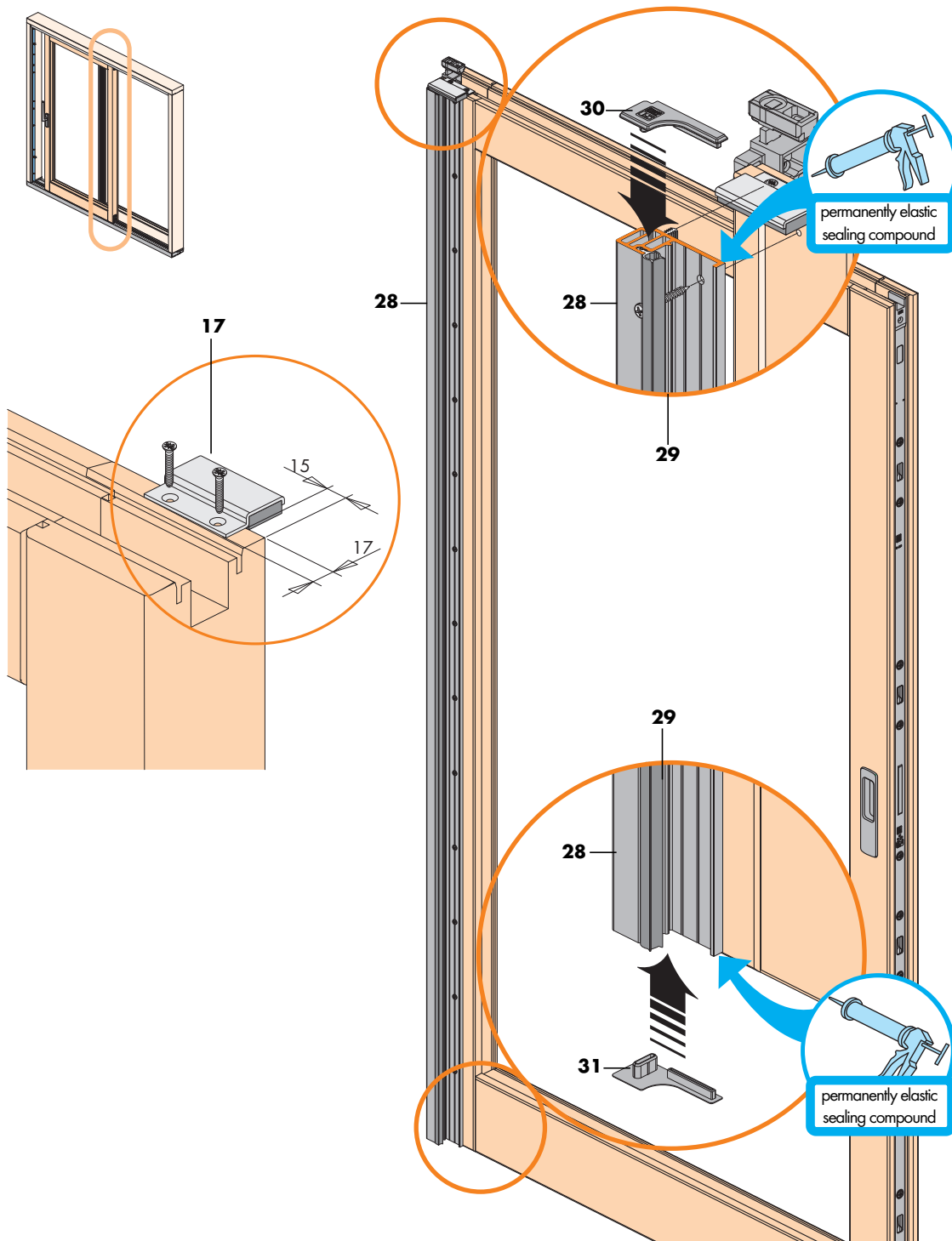
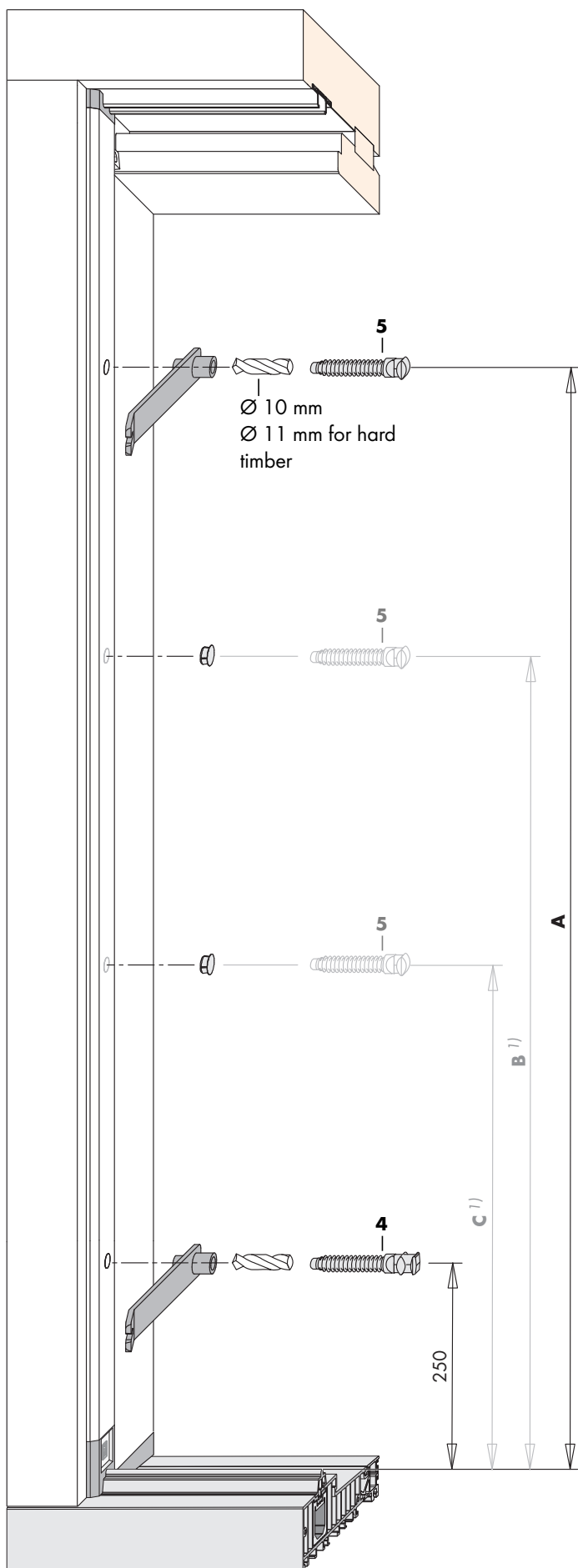


Fig. 19: Mounting the sealing rail C HS (28) to the lifting-slider sash

- › Cutting the slot for fixing the sealing rail C in the lifting-slider sash. Dimensions see construction drawing *H48.HS_HZS101EN*.
- › Trim sealing rail C HS (28) to the required length. Length = sash height - 5 mm.
- › Clean up sealing rail C HS (28) and remove any saw burr.
- › Retract sealing profile rail C HS (29) in sealing rail C HS (28) and trim to the required length with 5 mm projection below.
- › Adhere tilt and slide portals (30 u. 31) at the top and bottom of the sealing rail C HS (28).
- › Position sealing rail C HS (28) to be flush at top of lifting-slider sash and fasten with appropriate screws.
- › Fasten sealing bridge (17) in the indicated position tightly.



Gear	Dimension A	Dimensions B ¹⁾	Dimension C ¹⁾
Size. 170	1000	600	-
Size. 220	1600	1200	750
Size. 260	1900	1200	750

¹⁾ If desired, two additional locking bolts E, top TS (5) can be employed as central lock.
Open the provided locking points on the gear PORTAL HS 300-PZ (25/26) to accomplish this.

Fig. 21: Position of locking bolt

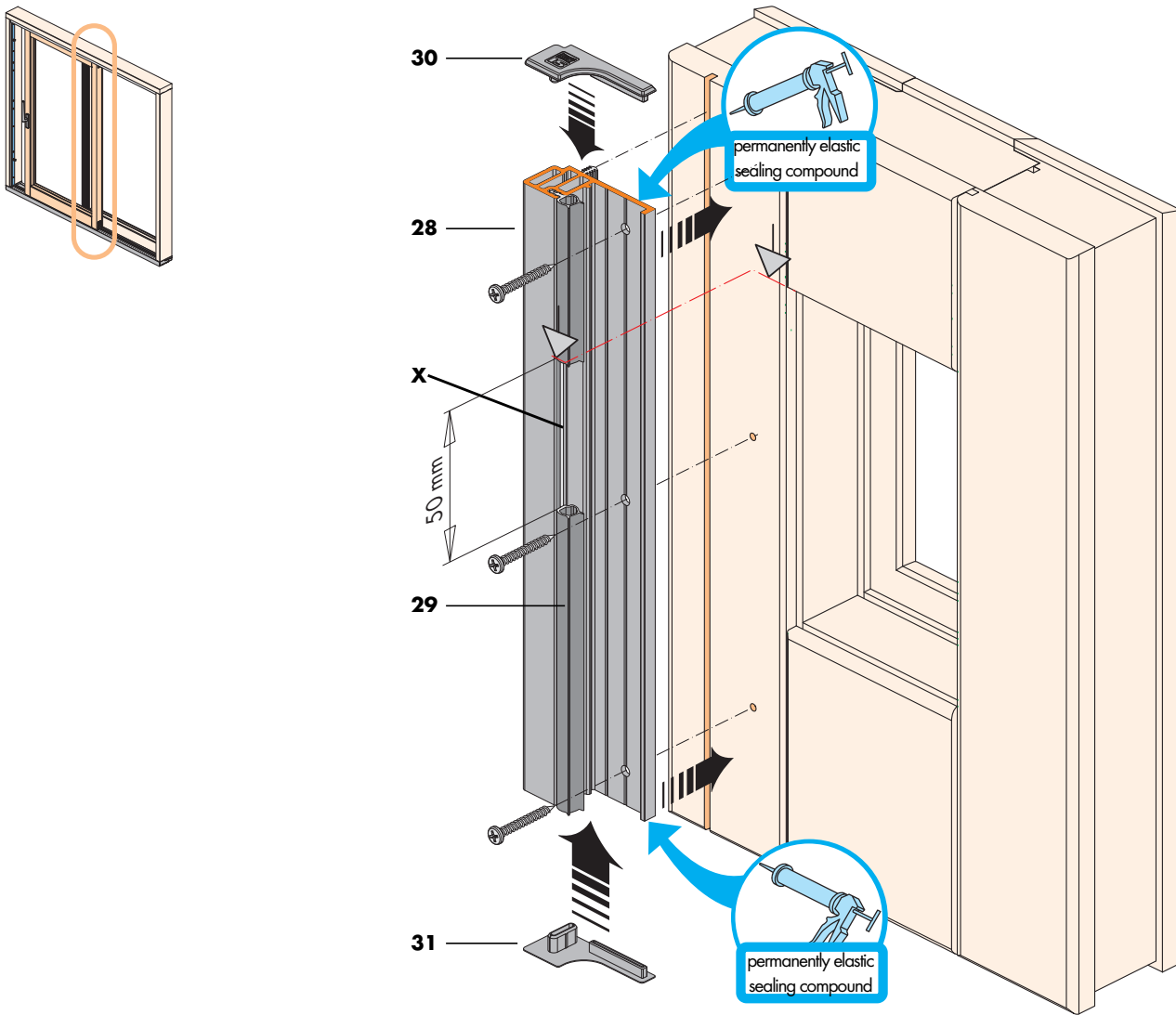


Fig. 22: Mounting the sealing rail C HS (28) to the fixed sash

- > Cutting the slot for fixing the sealing rail C in the fixed sash. Dimensions see construction drawing *H48.HS_HZS101DE.PA00001*.
- > Trim sealing rail C HS (28) to the required length. Length = sash height - 5 mm.
- > Clean up sealing rail C HS (28) and remove any saw burr.
- > Retract sealing profile rail C HS (29) in sealing rail C HS (28) and trim to the required length with 5 mm projection below.
- > Adhere tilt and slide portals (30 u. 31) at the top and bottom of the sealing rail C HS (28). Position sealing rail C HS (28) to be flush at top of the fixed sash and fasten with appropriate screws.
- > X = For pressure equalisation, release sealing profile rail C HS (29) approx. 50 mm long

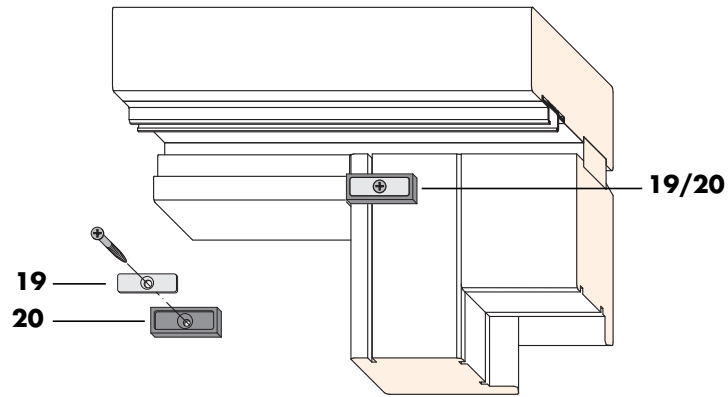


Fig. 23: Mounting the fastening plate 10 (19) and sealing part 10 (20) top onto the fixed sash

- > **1.** Screw sealing part 10 (20) with fastening plate 10 (19) to the fixed sash.

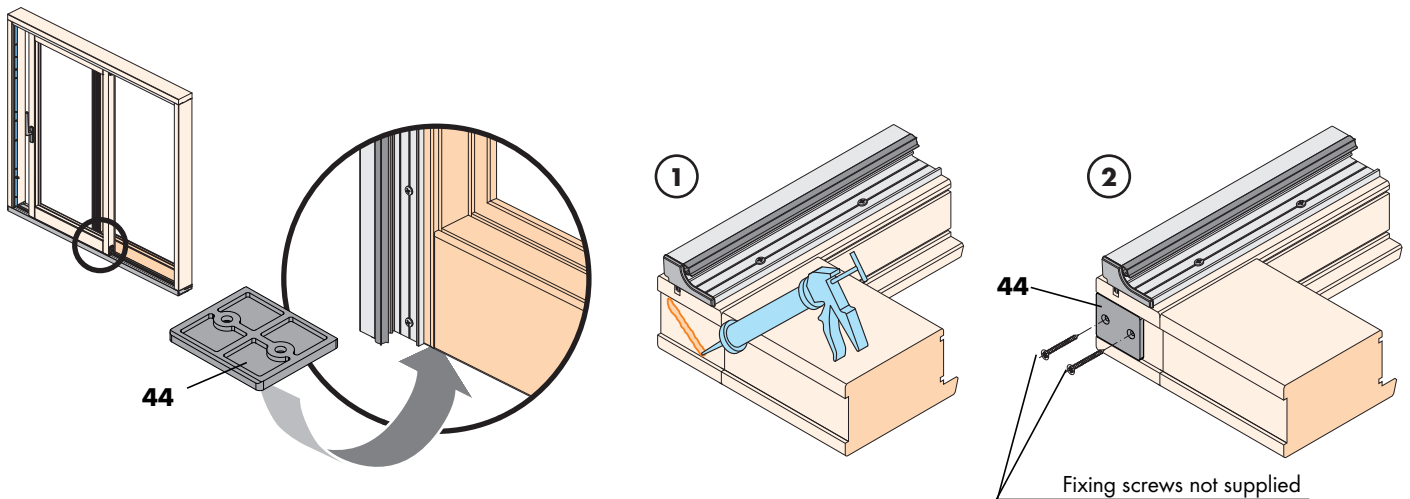


Abb. 24: Installation of the groove closing plate in groove (44) to underside of the fixed sash

Note: Installation of the groove closing plate (44) only with continuous groove to underside of fixed sash

- > **1.** Apply elastic sealing compound
- > **2.** Insert groove closing plate (44) flush into groove on the underside of the fixed sash and fix with screws

Sash an Element Drawings

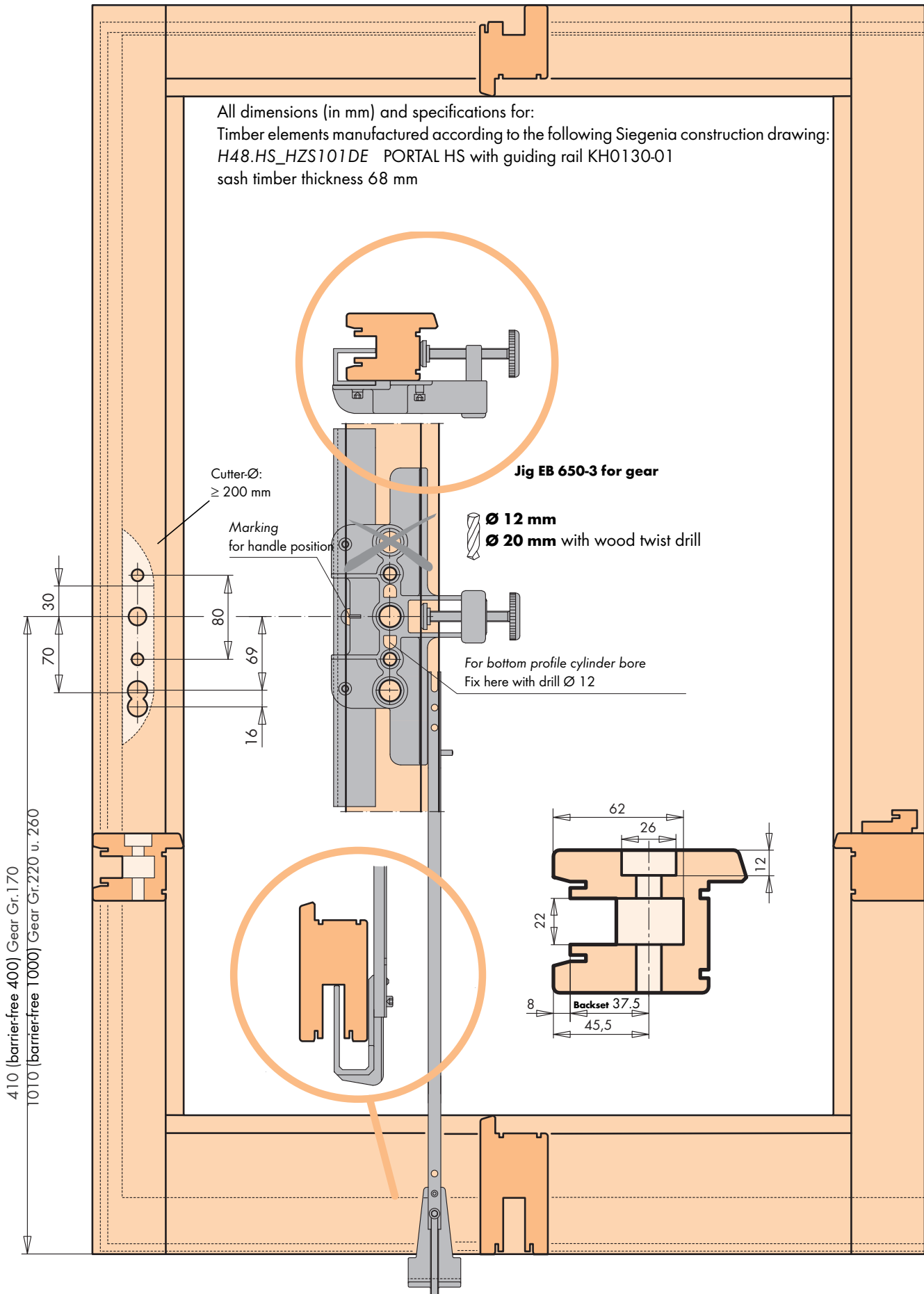


Fig. 25: Inner cuttings lifting-slider sash

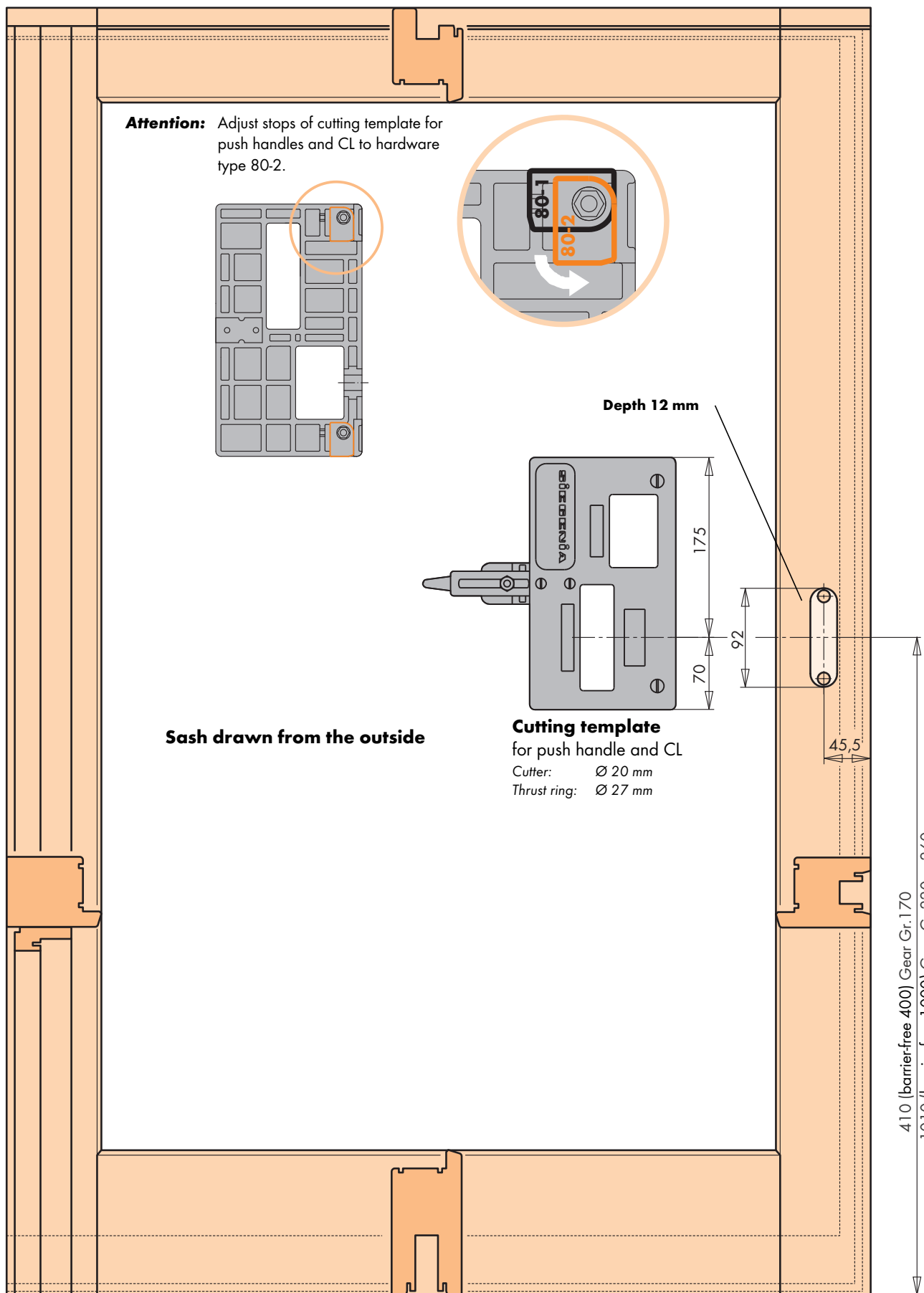


Fig. 26: Outer cuttings lifting-slider sash

The figure shows the vertical section for Scheme A, C, G2 and G3 with guiding rail KH0130-1
 For sections of other schemes, see the relevant construction drawing H48.HS_HZS101DE

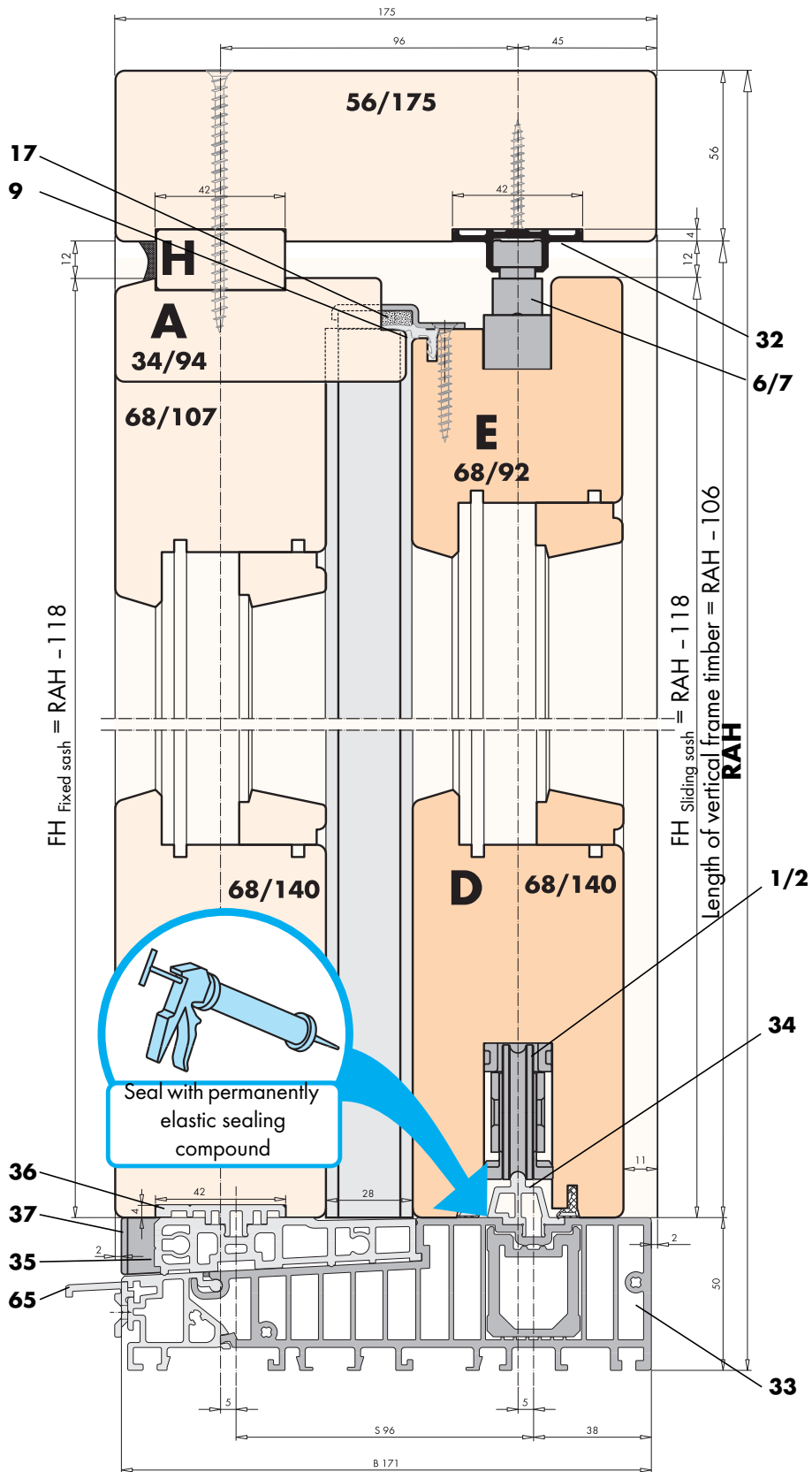


Fig. 27: Vertical section Scheme A, C, G2 and G3

For sections of other schemes, see the relevant construction drawing

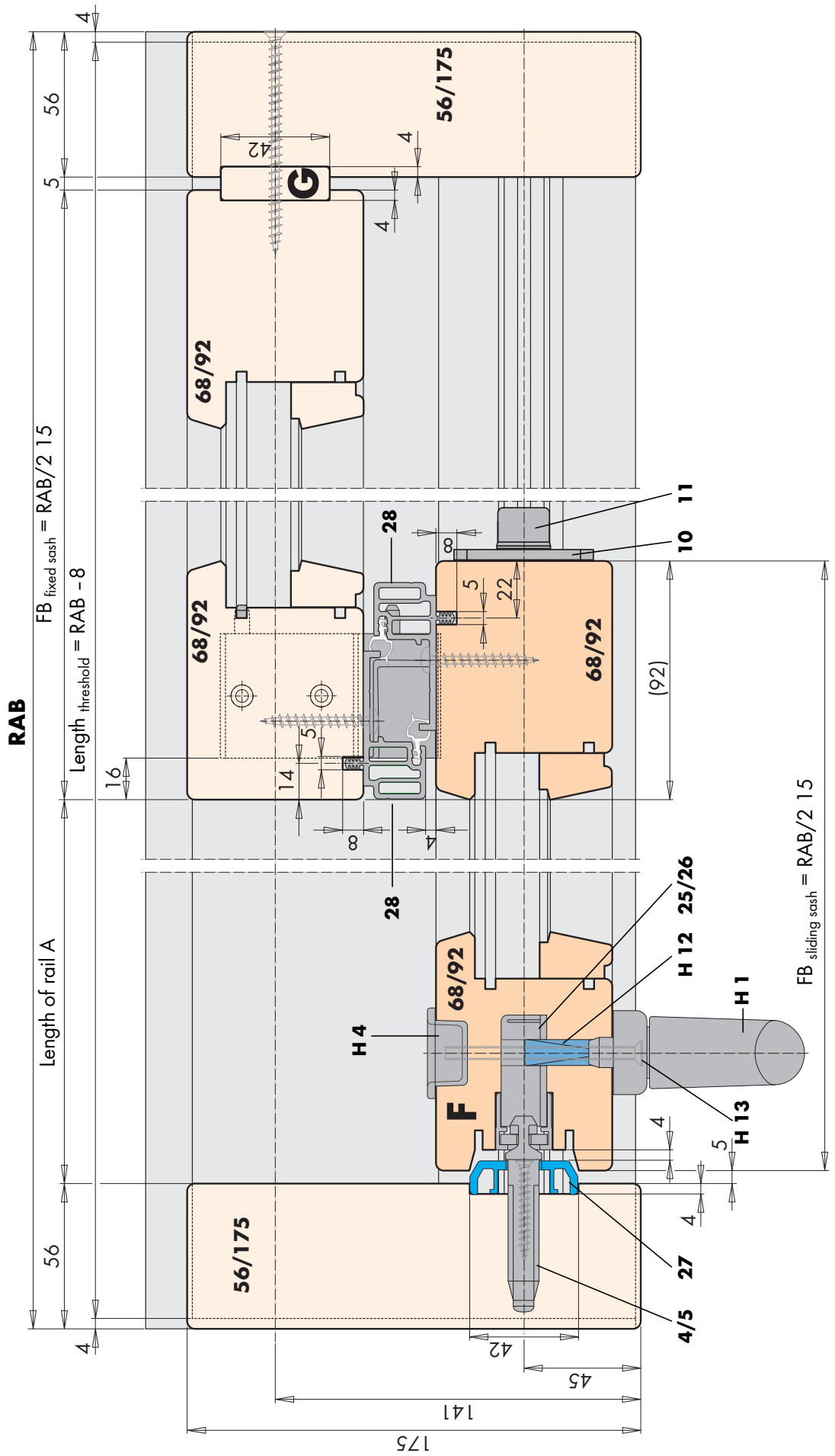
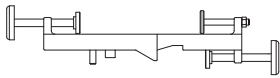
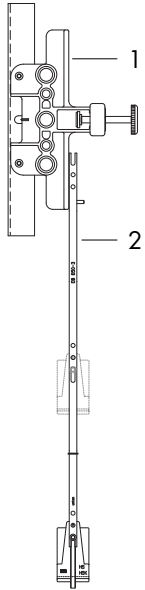


Fig. 28: Horizontal section scheme A

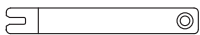
Jigs



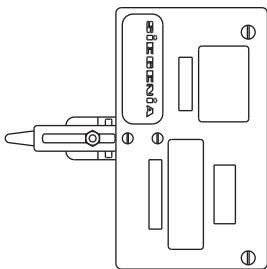
Description	Tool	Material number
Jig HS REV HH7642-06 for frame corner connection TIMBER HD56	Drill: Ø 6.5 mm	PABB5040-00001_



Bore HS GETR. DM 45.5 for gear bores consisting of:		
Item 1 for gear bores Bore HS GETR. DM 45.5	Drill: Ø 12 mm Ø 20 mm	PABB0040-52101_
It. 2 Adjusting rod for bore HS GEAR DM 45.5 (incl. bottom stop)		157244



Jig for locking bolts	Drill: Ø 10 mm	155066
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Cutting template for sliding grip and central lock	Cutter: Ø 20 mm Thrust ring: Ø 27 mm Drill: Ø 7 mm	141373
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Jig for locking bolt on running rail for Scheme C	Drill: Ø 5 mm	PABB0090-0D301_
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- When a sealing rail B in timber version is used instead of the PVC sealing rail B (27), the following applies:



Centre punch for locking bolt, for centre punching at the bores on sealing rail B		PALB0050-10001_
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Intended use

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Feedback on documentation

We welcome your comments and suggestions on how to improve our documentation. Please e-mail us your comments to 'dokumentation@siegenia.com'.

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