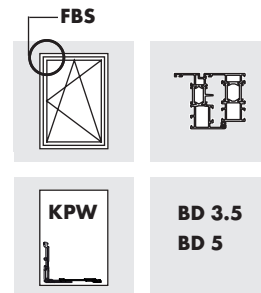


ALU 5200-TBT E RC 2

The anti-intruder turn-and-tilt hardware for aluminium windows and French doors.

Application for electrical test according to DIN EN 1627ff RC 2, RC 2 N



Size range

It is essential to adhere to the details of the system provider.

		Windows		French doors
		min.	max.	max.
Sash width	(mm)	365 to 1600	1300	
Sash height	(mm) ALU handle lockable (101/103)	730 to 2000	2400	
Sash height	(mm) TITAN handle lockable (105)	795 to 2000	2400	
Sash weight	(kg)	max. 130/150	max. 130/150	

The following information from the aluminium planning manual must be observed:

Guidelines of the German quality association for locks and hardware
(Gütegemeinschaft Schlösser und Beschläge e. V)

- Document no. H45.4200LS001EN

Application diagrams:

- Sash weight up to max. 100 kg: Document no. H58.AWDLMS003EN

- Sash weight up to max. 130 kg: Document no. H58.AWDLMS004EN

- Sash weight up to max. 150 kg: Document no. H58.AWDLMS005EN

Required documentation:

ALU 5200-TBT FBS-EUL Sash weight up to max. 100 kg/130 kg

- Document no. H48.5200LS003EN / H48.5200LS016EN

ALU 5200-TBT FBS-EUL Sash weight up to max. 150 kg

- Document no. H48.5200LS009EN

Gear set M6:

- Document no. H48.ZubhLS005EN

Basic safety notes:

- Document no. H45.5200LS001EN

Abbreviations:

- Document no. H45.5200LS002EN

Adjustment options:

- Document no. H45.5200LS004EN

Profile recommendation:

- Document no. H48.ZubhLS008EN

Updated directory of the documents:

- Document no. H45.5200LS005EN

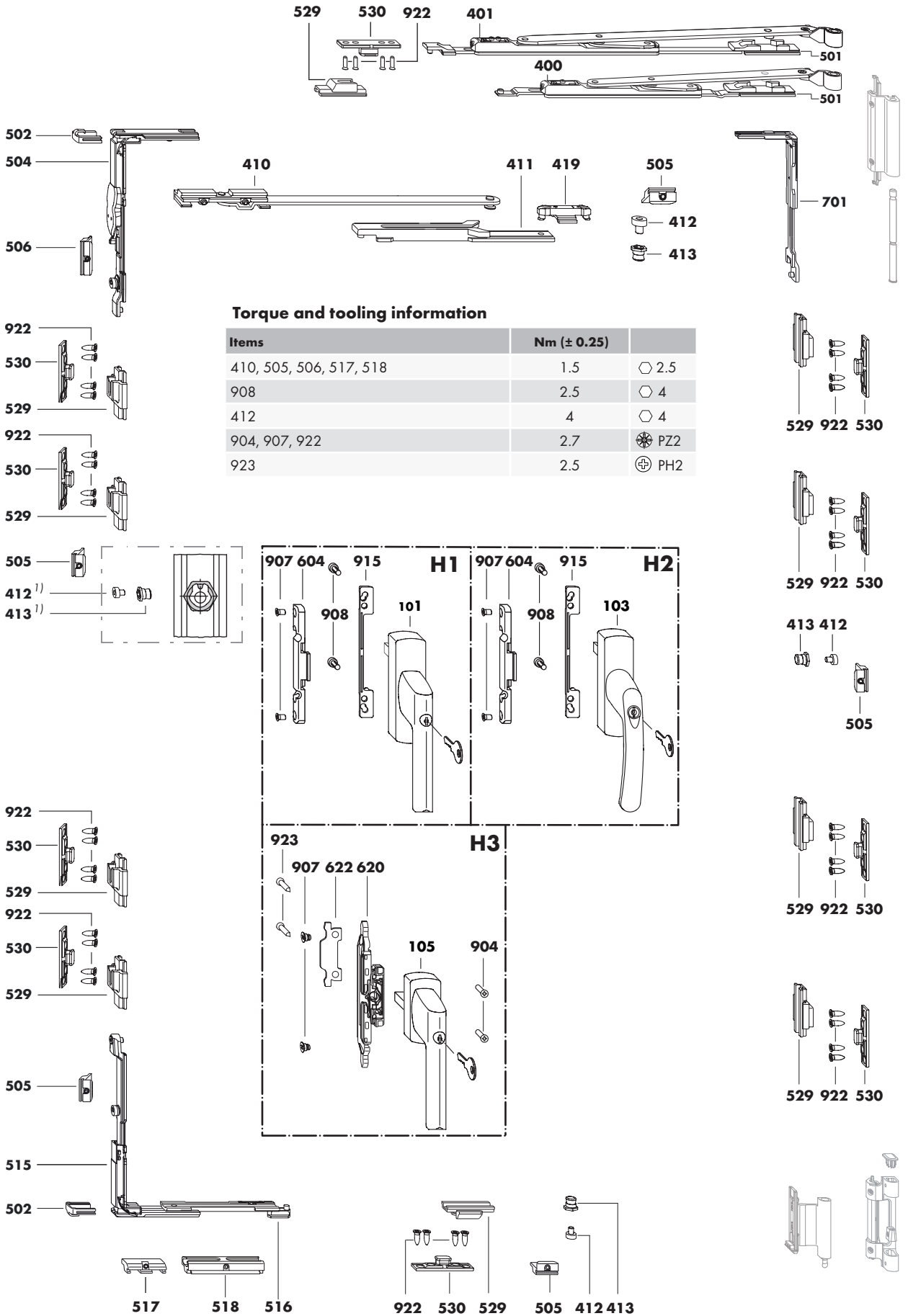
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Positions of the locking parts LM-E	5
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Assembly instructions
H48.5200LS025en

H48.5200LS025en/1

ALU 5200-TBT E RC2 Hardware overview



Torque and tooling information

Items	Nm (± 0.25)	
410, 505, 506, 517, 518	1.5	◇ 2.5
908	2.5	◇ 4
412	4	◇ 4
904, 907, 922	2.7	⊗ PZ2
923	2.5	⊕ PH2

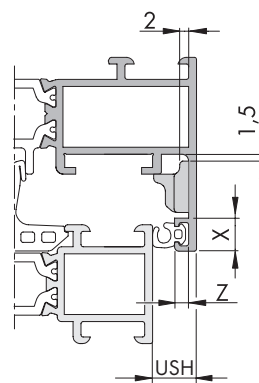
1) Is omitted for ESG LM M6 (620)

ALU 5200-TBT E RC2 Hardware list

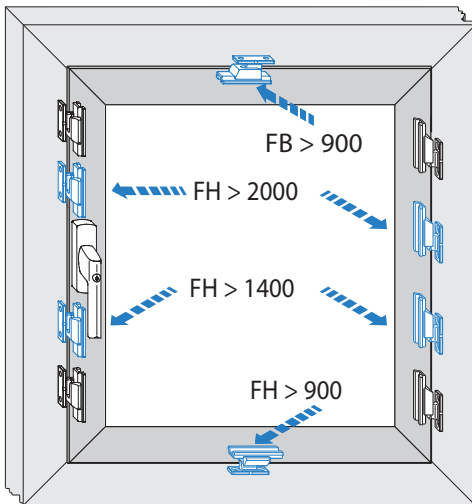
	Item	Piece	Designation	Material-No.	VE	Material-No.	VE	
		1	Hinge side ALU 5200 <i>Hinge side ALU 5200 without positioning</i>					
H1	101	0...1	Handle ALU Si-line lockable /TBT	See ALU handle overview, document no.: H48.ZubhLS007en in ALU planning manual				
H2	103	0...1	Handle ALU Globe lockable/TBT					
H3	105	0...1	Handle TITAN lockable/TBT <i>Only use in combination with ALU-E gear set (Torque min. 100 Nm)</i>					
	701	1	VSU/BSO corner drive	859391	1	266076	20	
depending on FB/kg	400	0...1	Top stay ALU 5200 size 20 <i>FB > 365 ≤ 600 ≤ 100 kg</i>	884805	1	273 098	20	
	401	0...1	Top stay ALU 5200 size 35 <i>FB > 600 ≤ 1600</i>	884782	1	314 203	20	
		0...1	Additional stay LM <i>FB > 1250 with top stay size. 35 ≤ 100 kg FB > 1020 with top stay size 35 > 100 kg</i>	857076	1	247006	10	
	410	1	Additional stay					
	411	1	Striker plate					
	412	1	Locking cam					
	413	1	Eccentric rivet					
	419	0...1	MV stay striker <i>FB > 1250 ≤ 100 kg FB > 1020 > 100 kg</i>	MXSK0010-100010	1	MXSK0010-100030	20	
		1	VS ALU-TBT FBS-EUL KPW	MMVS0460-100010	1	MMVS0460-100030	20	
	501	1	Locking bolt TBT					
	502	2	EUL clamping piece					
	504	1	VSO FBS corner drive					
	505	1	Striker					
	506	1	Striker EUL VSO					
	515	1	VSU corner drive					
	516	1	Tilt lock					
	517	1	Run-up block					
	518	1	Tilt locking part					
H1/H2		0...1	Coupling set ALU-E (without FBS on gear) <i>Only use in combination with H1/H2</i>	MMKL0070-100010	1	MMKL0070-100030	20	
	604	1	Coupling bracket E M6					
	907	2	M6 coupling screw					
	908	2	M5 x 12 cheese head screw					
H3		0...1	Gear set ALU-E (without FBS on gear) <i>Only use in combination with H3</i>	MMGI0060-100010	1	MMGI0060-100030	20	
	620	1	ESG LM M6					
	622	1	Anti-drill guard					
	904	2	M5 x 35 countersunk screw					
	907	2	M6 coupling screw					
	923	2	Countersunk tapping screw B 3.9 x 13					
		4...10	Locking part ALU-E A0004	MMVR0050-100010	1	MMVR0050-100030	20	
			Locking part ALU-E A0006	MMVR0060-100010	1	MMVR0060-100030	20	
			Locking part ALU-E A0022	MMVR0070-100010	1	MMVR0070-100030	20	
	529	1	Locking part E					
	530	1	Striker E					
	922	2	Countersunk screw FDS M5 x 14.5					
dependent on system		0...2	Locking part ALU <i>FH > 1250 mm (recommendation)</i>	-	1	317556	20	
		412	1	Locking cam				
		413	1	Eccentric rivet				
		505	1	Striker				
			0...1	MV ALU-RB/SF <i>FB > 1250 mm (recommendation)</i>	894316	1	303917	20
		412	1	Locking cam				
	413	1	Eccentric rivet					
	505	2	Striker					
Accessories								
	915	0...1	Handle support ALU <i>Only use in combination with H1/H2</i>	-	-	(see below)	200	

Design variations for handle support ALU (915)

USH	Z	X < 7 mm	X 7.1 - 8.5 mm
		Material-No.	Material-No.
7 - 10 mm	< 2 mm	MFHA0010-100200	MFHA0010-100200
	2.1 - 3 mm	MFHA0010-100200	MFHA0020-100200
	> 3 mm	MFHA0010-100200	-
12 mm	-	MFHA0030-100200	-



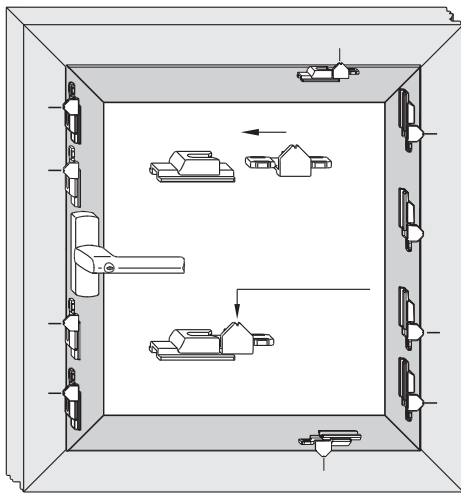
ALU 5200-TBT E RC 2 Number and positions of the ALU-E locking parts



FH	FB 365 ≤ 900	FB > 900
> ... ¹⁾ ≤ 1400	4	6
> 1400 ≤ 2000	6	8
> 2000 – 2400	8	10

1) For size ranges, see table on page 1

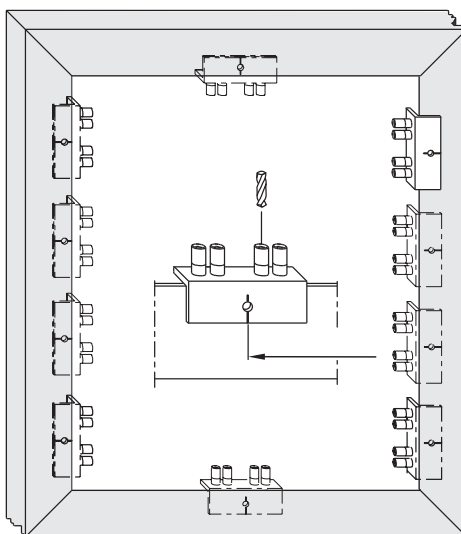
Designation		Material no.
1. Jig ALU-E-EL	for sash (max. 10 per sash)	156926
2.1 Jig ALU-EB-E (3.5 mm)	for frame (hole Ø 3.5) (fig. 4)	MARB0060-500010
2.2 Jig ALU-EB-E (4.2 mm)	for frame (hole Ø 4.2) (fig. 5)	MARB0040-500010



Installation of the jigs ALU-E-EL on the sash

1. Use on sash

- A** Mount and secure the sash.
- B** Insert jig ALU-E-EL into locking parts E (529) (see fig. 1).
- D** Switch gear horizontally
- C** Switch gear vertically upwards (180°).
- E** Close sash without changing handle position.
- F** Make markings for jig ALU-EB-E on the frame (see fig. 2).
- G** Open sash.
- H** Remove jigs ALU-E-EL.



Installation of the jigs ALU-EB-E to the frame

2.1/2.2 Use on frame

Position jigs ALU-EB-E (see fig.3) and drill boreholes for strikers E (530) (see fig. 4) with Ø 3.5 or (see fig. 5) with Ø 4.2 (remove markings).

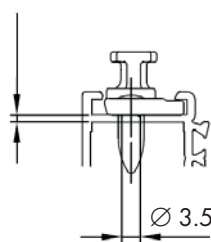


Fig. 4 (2.1)

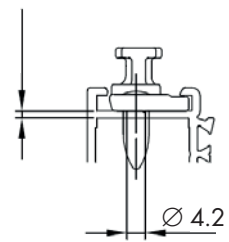
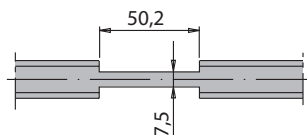
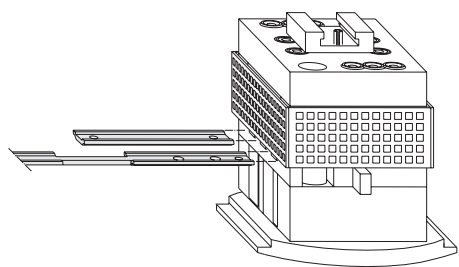


Fig. 5 (2.2)

ALU 5200-TBT E RC 2 Jigs and installation dimensions for sash brake ALU



Designation		Material no.
Punching tool E Suitable drive: BST 105 (15 mm travel)	– Ø 5.2 operating rod punch hole – Cropping – Punching 50.2 – Punch hole for Locking parts E	141267
	or	
Multi-purpose punching machine	– Ø 5.2 operating rod punch hole – Cropping – Punching 50.2 – Punch hole for Locking parts E	157398

Installation dimensions for sash brake ALU

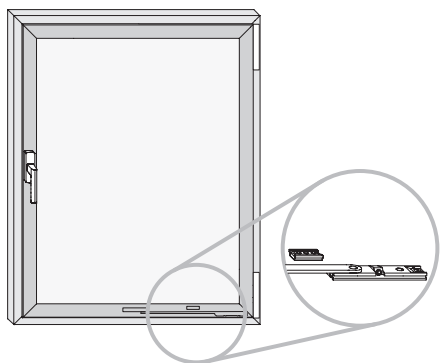
	Opening angle		90°	
	Measurements in mm		X	Y
Sash brake ALU short	sash width	800 - 1000	60	104
Sash brake ALU long	sash width	1001 - 1600	124	208

Installation of the sash brake ALU on the hinge side at the bottom (BSU)

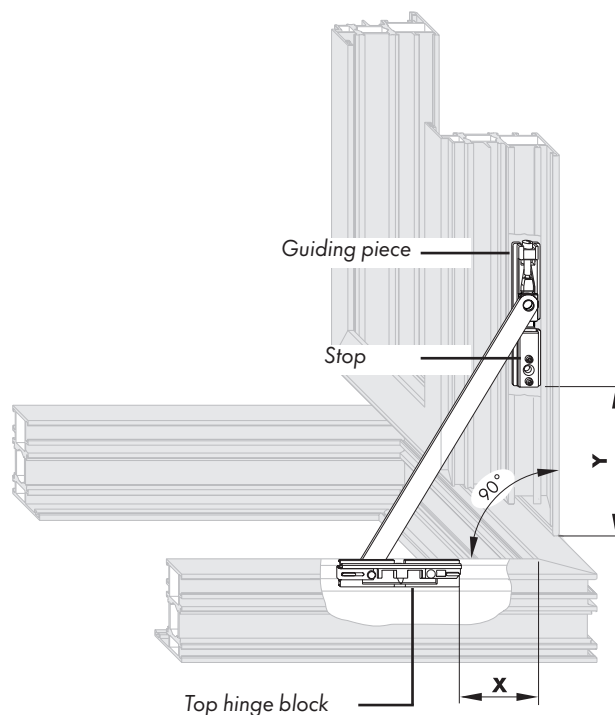
⚠ WARNING

There is a risk of injury if the window sash falls out!

-The sash limiter ALU can only be installed on the hinge side, bottom.

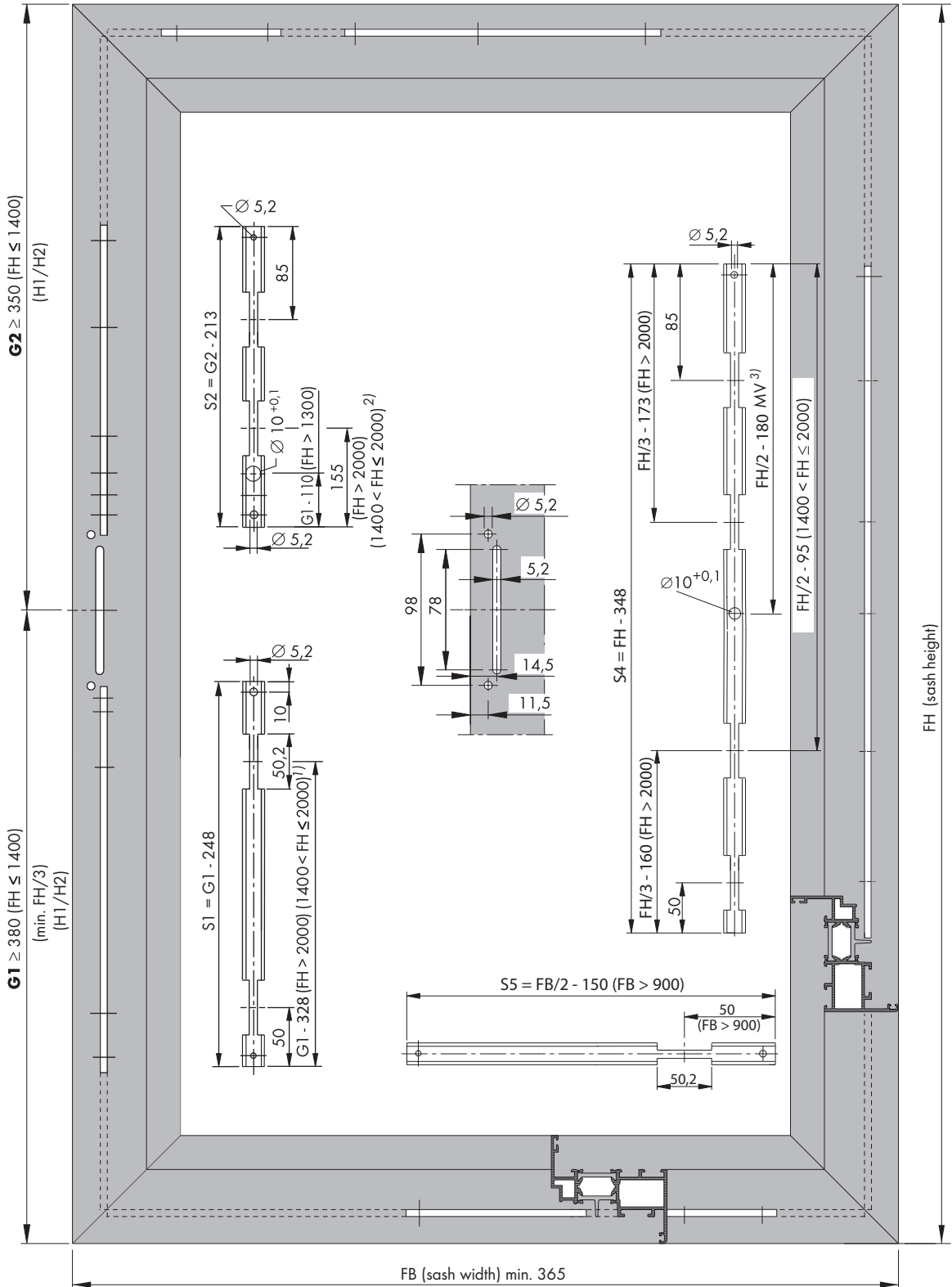
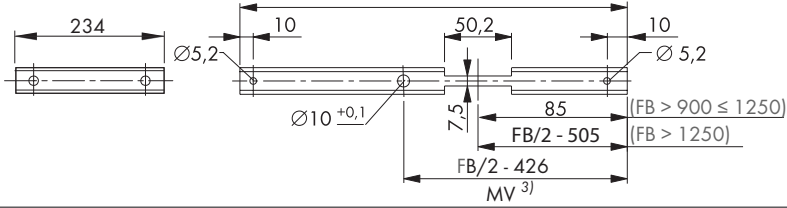


For missing details on the sash brake ALU, see aluminium planning manual under accessories drawing no. H48.ZubhLS017en



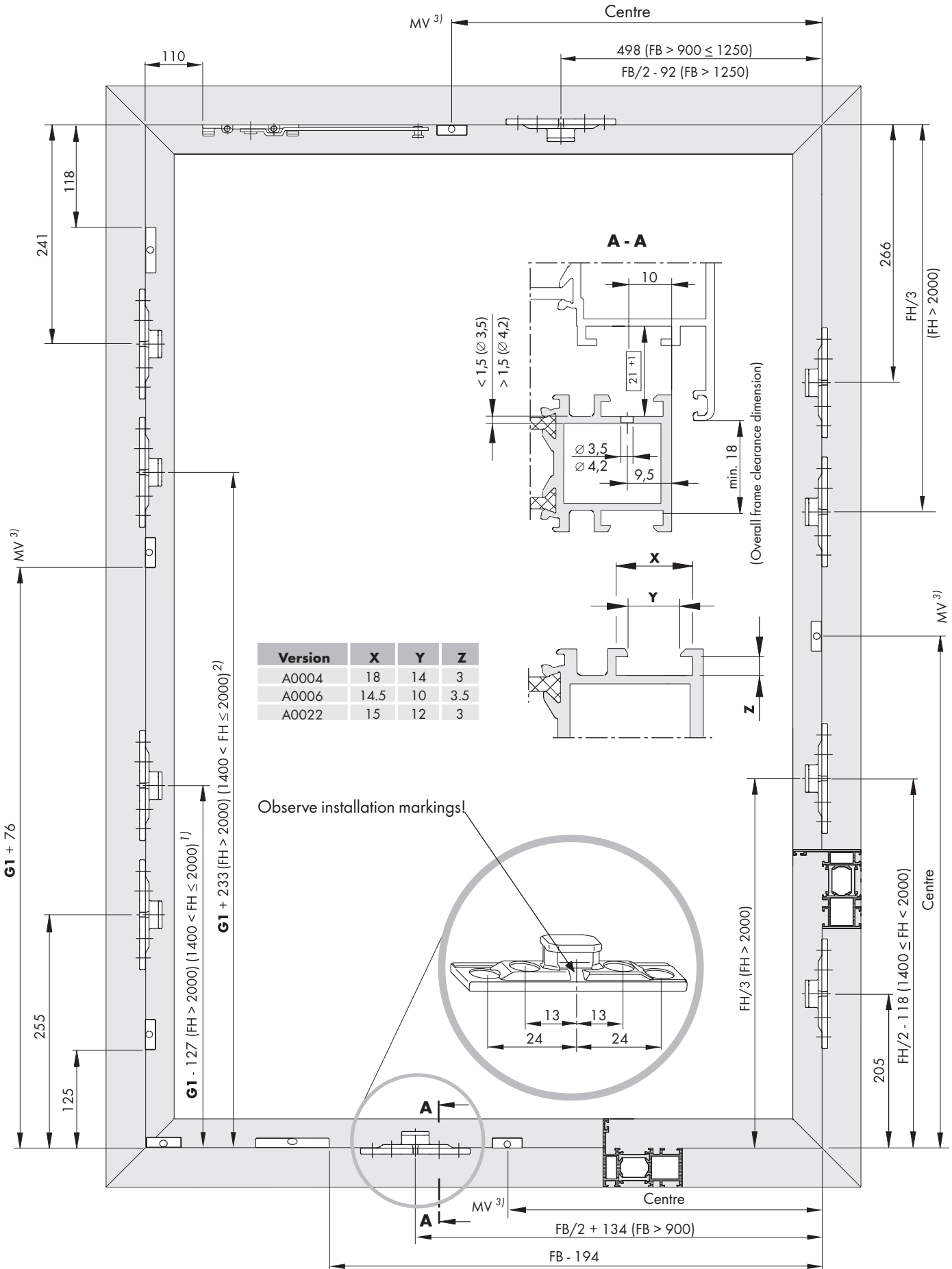
ALU 5200-TBT E RC 2 Sash dimensions

S3 = Top stay ALU 5200 Size. 20 FB - 338
 = Top stay ALU 5200 Size. 35 FB - 506
 = with additional stay ALU for FB - 917
 (> 100 kg/FB > 1020 mm)



1) $G1 \leq G2$
 2) $G1 < G2$
 3) Installation recommendation for the centre locks see page 3.

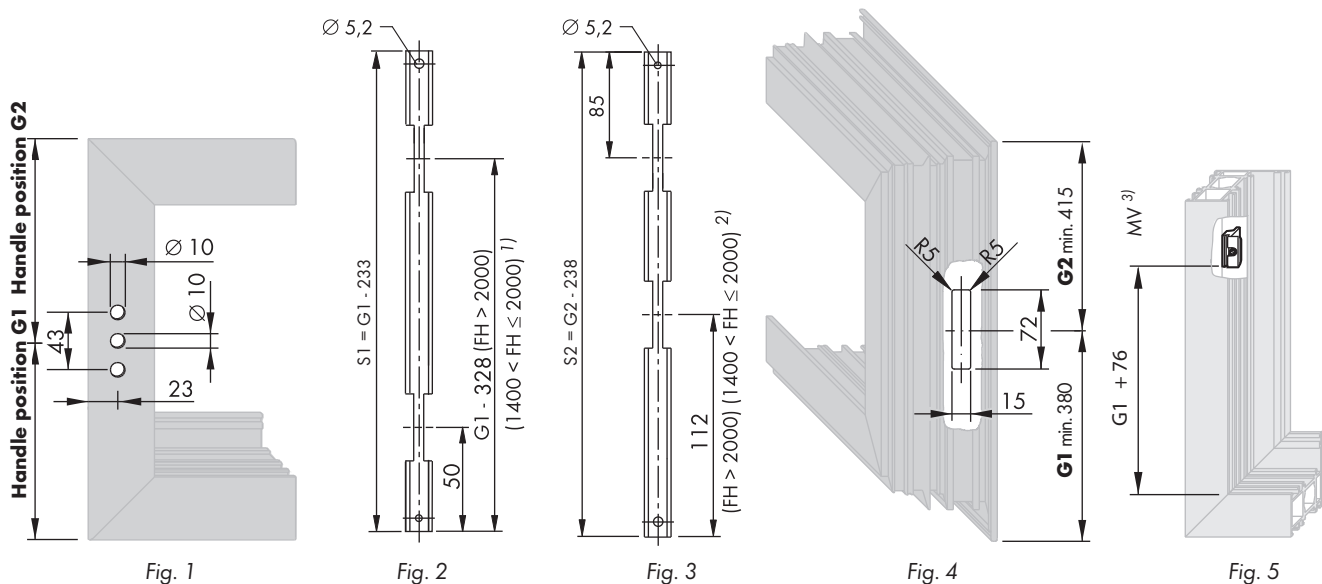
ALU 5200-TBT E RC 2 Frame dimensions



1) $G1 \leq G2$
 2) $G1 < G2$
 3) Installation recommendation for the centre locks see page 3.

Assembly instructions

- Preparation**
- A** Rework lockable window handle (105) and ESG LM M6 (620) on sash according to dimensions (fig. 1 and 4).
 - B** Adjust the length of the square spindle to the profile used. Shorten if necessary.
 - C** Process operating rods S1 and S2 according to dimensions.
 - D** Screw anti-drill guard (622) with countersunk tapping screw PH 3.9 (923) to ESG LM M6 (620). For positioning of locking parts E (529) see operating rods S1 and S2 (fig. 2+3).
- Sash**
- E** Insert ESG LM M6 (620) into the milling groove provided (fig. 4).
 - F** Mount ESG LM M6 (620) with coupling screws M6 (907) to the operating rods.
- Frame**
- For FH > 1250 mm (recommendation), position striker (505) according to dimensions (fig. 5) and clamp into place with the grub screw.



1) $G1 \leq G2$

2) $G1 < G2$

3) Installation recommendation for the centre locks see page 3.