

ALU

Locking sides

ALU hardware program

- For aluminium window elements with 21 mm chamber dimension
- For rectangular constructions

Window systems

Door systems

Comfort systems

1
2
3
4
5
6
7
8

Allgemeines	1
VS ALU-DS/A -DS/K (A0004) (FBS-EUL)	2
VS ALU-DS/A -DS/K (A0004) (FBS-G)	3
VS ALU-DS/A -DS/K (A0004) (FBS-G A0102)	4
VS ALU-DS/A -DS/K (A0006/A0026) (FBS-EUL)	5
VS ALU-DS/A -DS/K (A0006/A0026) (FBS-G)	6
VS ALU-DS	7
VS ALU-DG	8

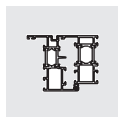


General

Directives of the Trade Organisation	H45.4200LS001EN	1 - 3
Basis safety notes	H45.5200LS001EN	1 - 4
Symbols and abbreviations	H45.5200LS002EN	1 - 6
Material number key	H45.TITM000S001EN	1 - 9

Profile information ALU20

Designations and dimensions	H45.ALUS001EN	1 - 10
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Secondary sash for double groove	H45.ALUS001EN	1 - 13
Secondary sash for simple groove	H45.ALUS001EN	1 - 14



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

The directives of the Trade Organisation for Locks and Fittings provide comprehensive information on the correct operation and maintenance of hardware for windows and portal doors.

Compliance with these guidelines is mandatory.

You can find the latest versions of the directives, in a range of languages, at:

<http://www.beschlagindustrie.de/ggsb/richtlinien.asp>



TBDK – Attachment of supporting fitting components for turn-only and tilt&turn fittings

with definitions for turn-only and tilt&turn fittings and their possible installation positions

VHBH – Hardware for windows and balcony doors

Guidelines/advice on the product and on liability

VHBE – Hardware for windows and balcony doors

Guidelines/advice for end-users

FPKF – Restrictor and cleaning stays for Tilt-Only sashes and Tilt-Only fanlights

Use of restrictor and cleaning stays

FBDF – Casement stoppers for variable rotational position of window leafs

Casement stoppers that are controlled via the central locking system - definitions and tests

Further relevant documents

You can find further relevant documents, for example structural design charts, assembly instructions, profile spec sheets, individual component sheets, and maintenance, operating and care instructions, on our documentation pages:

<http://downloads.siegenia.com/>



Feedback on documentation

We welcome your comments and suggestions on how to improve our documentation. Please e-mail your comments to:

dokumentation@siegenia.com.



Intended use

The hardware described in this document is intended to be installed in an aluminium window frame by a certified window construction specialist in accordance with these instructions. The windows must only be installed vertically.

The certified window construction specialist must ensure that the hardware is suitable for the application based on the specifications in these instructions and in the other documents specified.

Avoid excessive strain

Bearing components can break if they are exposed to excessive strain. If this happens, the window sash may fall out, leading to serious injuries.

If the hinge parts may be subject to excessive strain under certain conditions (use in schools, nursery schools, etc.), appropriate measures must be taken to prevent this from happening, such as using turning locks or tilt-before-turn opening types (TBT).

- If in any doubt, please contact your SIEGENIA sales consultant.

Do not mix hardware components

The hardware components are designed to work with one another. If they are mixed with hardware components from other systems or manufacturers on a window, it is not possible to guarantee that they will operate safely. Hardware components can break and cause accidents.

- Only use the hardware components listed in these instructions together on a window.

Only treat window surfaces prior to assembly of hardware

- Any surface treatment applied to the window surfaces after the assembly of the hardware components may limit their functionality.

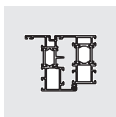
Avoid damage caused by corrosion and debris

Corrosive materials, dirt and moisture may damage hardware components and cause hazards.

- Do not use acetic or acid-releasing sealants.
- Do not use the hardware components in environments where the air contains aggressive or corrosive components.
- Keep all rebates free of debris and dirt, especially cement and plaster residue.
- Keep the hardware dry.

Clean hardware gently

- Only clean the hardware with a soft cloth and mild, diluted pH-neutral cleaning agents.
- The hardware must not be exposed to abrasive cleaners or aggressive, acidic cleaning agents.
- Dry the hardware after cleaning.

**Pass on information to the user of the window**

- Attach the user information sticker: DK (order no. 05083) TBT (05085) or Gap ventilation (05084) to the installed window or door element so that it can be seen easily.
- Provide the user with the following documents:
 - Maintenance instructions ALU: order no. H45.5200LS006
(This documentation only applies to certified window installers)
 - Care instructions ALU: order no. H45.5200LS007
 - Operating instructions ALU: order no. H45.5200LS008These documentations apply to certified window installers and end users.

Exclusion of liability

We assume no liability for loss of function and damage to the fittings (as well as the windows and French windows that are equipped with them) resulting from inadequate tendering, failure to follow these installation instructions or from force being applied to the fittings (e.g. through improper use).



Element materials



Element material ALU 20 mm

Symbols



Height adjustment



Side adjustment



Compression adjustment

Opening types



Rectangular turn-tilt element



2-sash rectangular turn-tilt/turn element



Rectangular turn element



2-sash rectangular turn/turn element



Rectangular tilt-element



Round arch turn-tilt element



Double sash, round arch turn-tilt/turn element



Segmental arch turn-tilt element



Double sash, segmental arch turn-tilt/turn element



Pitched window turn-tilt element

Dimensions

All dimensions are nominal values and include the general tolerances.

All nominal values are given in mm.

Weights

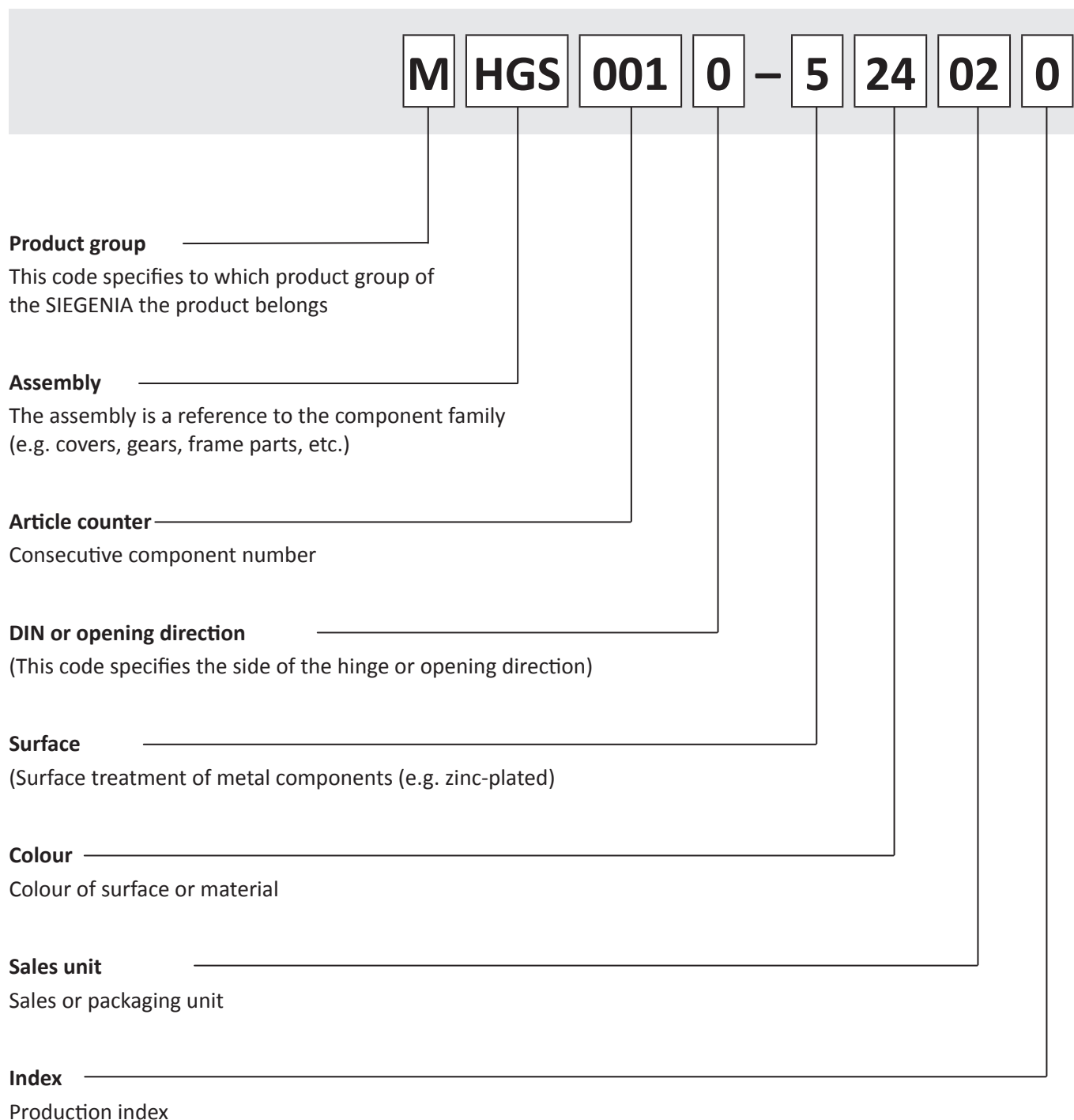
All weights refer to the maximum sash weight.



ALU	Aluminium	iP	Industrial packaging
ARB (x)	Begin round arch	K	Tilt element
ASB	Begin segmental arch	KM	Chamber dimension
AV	Compression adjustment	KPS	Tilt-point vertical
AWD	Application diagram	KPW	Tilt-point horizontal
BF	Barrier free	LM	Aluminium
BD	Hinge clearance	LS	Length of incline
BS	Hinge side	MV	Center lock
BSO	Hinge side, top	MVS	Center lock vertical
BSU	Hinge side, bottom	MVW	Center lock horizontal
CG	Glass deduction dimension	Nm	Newton-Meter (Torque)
D	Turn only element	PG	Profile weight
DG	Turn, counter rotating	RC1...3	Resistance class
DK	Turn-tilt element	RR	Round rose
DF	Turn only sash	RB	Round arch
DS	Turn, secondary sash	S	Stay position
DS/A	Secondary sash slip-on gear	S1...9	Operating rods 1 - 9
DS/K	Secondary sash shoot bolt	SDF	Stay turn sash
E	Burglar resistance	SF	Pitched window
ESG	Routed-in drive gear	SV	Side adjustment
EUL	Corner drive	SW	Wrench size
FB (a)	Sash width	TBT	Tilt-before-turn
FB1	Sash width primary sash	USH	Rebate height
FB2	Sash width secondary sash	VE	Packaging unit
FBS	Mishandling device	VS	Locking side
FBS-EUL	Mishandling device on corner drive	VS/A	Locking side, slip-on gear
FBS-G	Mishandling device on gear	VS/K	Locking side, shoot bolt
FH BS	Sash height hinge side	VSO	Locking side top
FH (b)	Sash height	VSU	Locking side bottom
FH VS	Sash height locking side	WK1...3	Resistance class accord. DIN EN 1627-1630
FP	Tilt-only safety stay	WRB	Stay hinge round arch
GG	Glass weight	ZS	Position additional stay
G1...2	Handle position 1 - 2	ZV	Central locking gear
Gr.	Size		
H1...H4	Handle version 1 - 4		



The material number is a code for components and consists of eight segments. The material number allows products to be precisely assigned to their corresponding component drawing, surface, colour and other properties.





M	HGS	001	0	–	5	24	02	0
1	2	3	4		5	6	7	8

1 Product group

A	A300	G	DRIVE (Building technology)	P	PORTAL
B	BASICline	K	Small parts	T	TITAN
C	Casement	L	AERO (Ventilation technology)	U	SASS
D	KFV (Door)	M	ALU20	V	Packaging
F	FAVORIT	N	Branch offices	Z	Accessories

2 Assembly

A	Jigs	H	Handles	S	Stays
B	Hinge side parts	K	Cover caps	U	Monitoring (Aerocontrol / radio sensor)
D	Seal, distance piece	L	Bogie wheels	V	Extension
E	Corner drives, lock bolts, locking parts	M	Mixed packages	Z	Linkages / accessories
F	Sash components	P	Profiles / profile sets PORTAL		
G	Gear sets	R	Frame parts		

The abbreviations ONLY apply to the 1st digit. Further digits are assigned individually.

3 Article counter

The articles are assigned consecutive numbers from 001 to 999.

4 DIN- or opening directions

0	Independent of opening	1	DIN right	2	DIN left
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5 Surface

0	Neutral (finished surface) e.g. plastic	2	E-Look (galvanised)	6	Clear - chromated (galvanised)
1	Titan silver (galvanised)	5	Aluminium, suitable for anodising, painting or coating	L	Painted

6 Colour

25	SI-silver	00	Mill finish		
04	RAL 9016 White	24	EV1 anodised		
23	RAL 9005 Black				

For further colours please inquire.

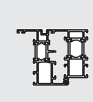
7 Packaging unit

01	Quantity of 1	04	Quantity of 25	07	Quantity of 250
02	Quantity of 10	05	Quantity of 50	08	Quantity of 500
03	Quantity of 20	06	Quantity of 100		

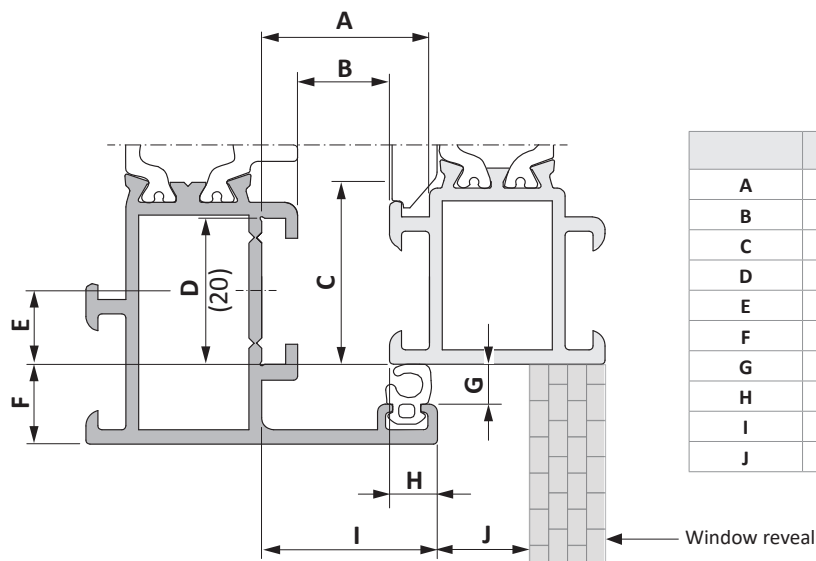
For further packaging units please inquire.

8 Processing index

The processing index indicates the processing status and is assigned consecutively.

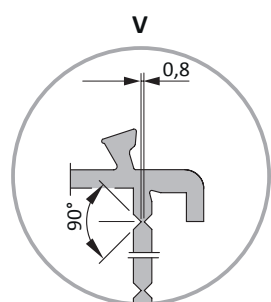


Designations ALU 20 (ALU20 = hardware groove eurogroove 20 mm)



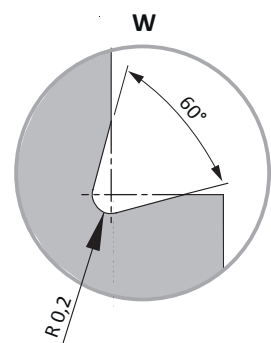
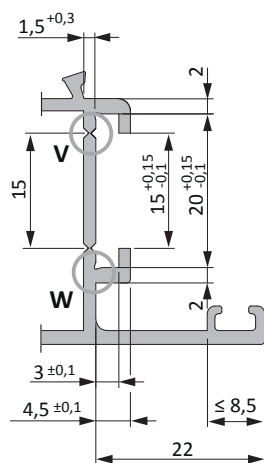
	Name
A	Fitting chamber
B	Airgap
C	Space in the rebate
D	Eurogroove
E	Hardware axis
F	Rebate height
G	Hinge clearance (BD)
H	Rebate cover
I	Rebate width
J	Frame clearance

Dimensions of sash profile



View "V"

Material tapering for
the cut to length in the
hollow chamber
(for gear set).

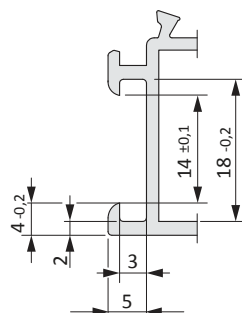


View "W"

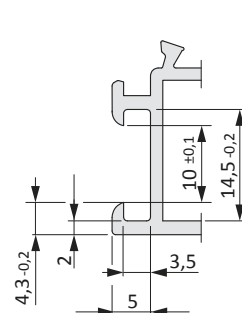
Radial recess in
the sash groove.

Frame groove versions

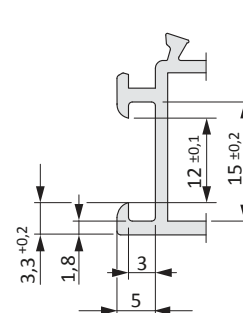
A0004



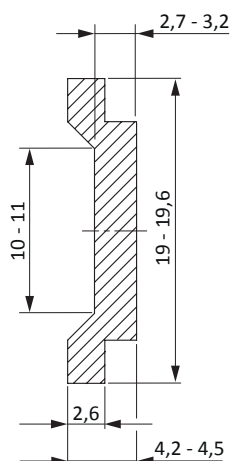
A0006



A0022



Operating rod dimensions



The defined dimensions are final dimensions after the surface
treatment of the profiles e.g. painted, powder coated etc.!





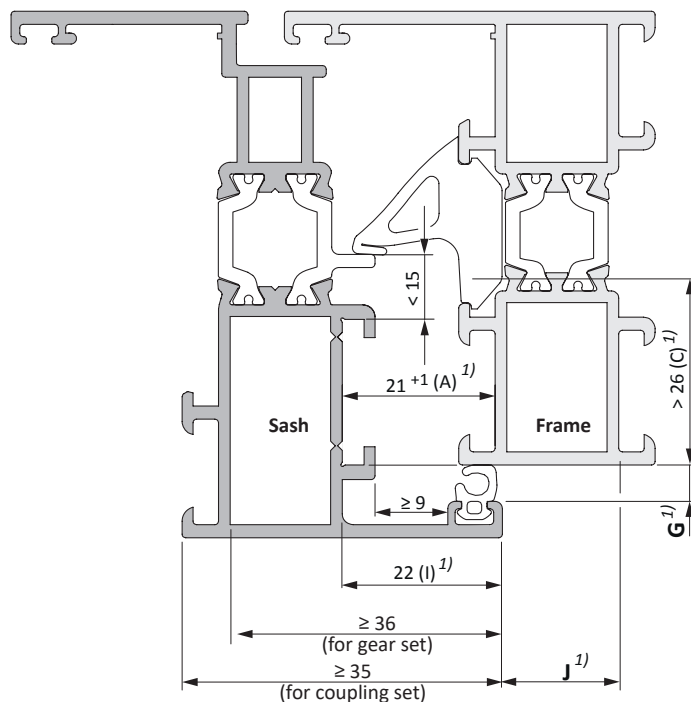
Profile and pivot dimensions

ALU

Single sash square turn and tilt, tilt-turn and turn-only
Profile information

1

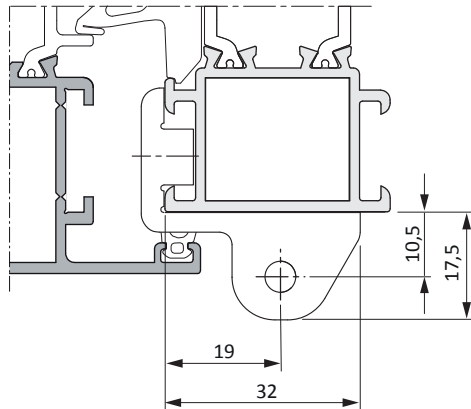
Profile recommendation ALU 20



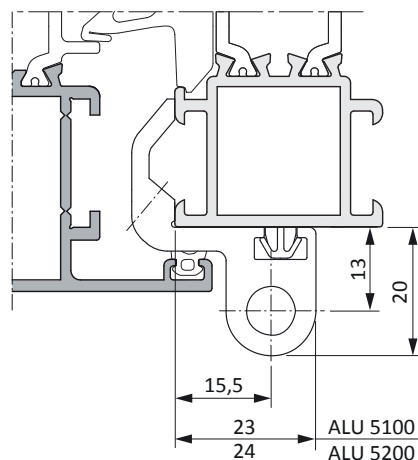
Hardware	Overall frame clearance J (mm)	Hinge clearance (BD) G (mm)
ALU RB/SF	≥ 28	≤ 4
ALU axxent PLUS	≥ 10	≥ 3.5
ALU 5100	≥ 18	$\geq 3.5 \leq 5$
ALU 5200	≥ 18	$\geq 3.5 \leq 7$
ALU 200-DK/TBT	≥ 23	≥ 5
ALU 300-D	≥ 20	≥ 6.5

1) See table "Designation" on page 2.

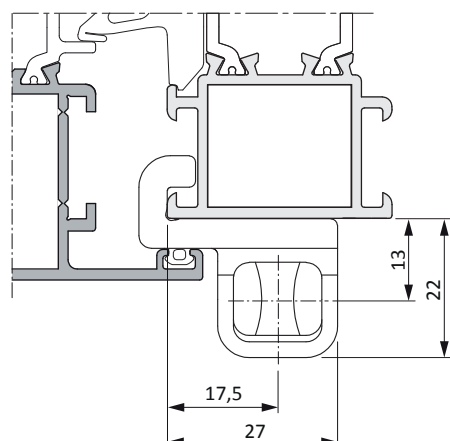
Pivot ALU RB/SF



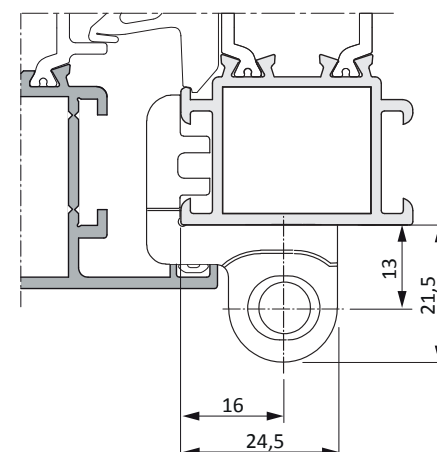
Pivot ALU 5100/5200

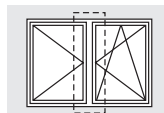


Pivot ALU 200

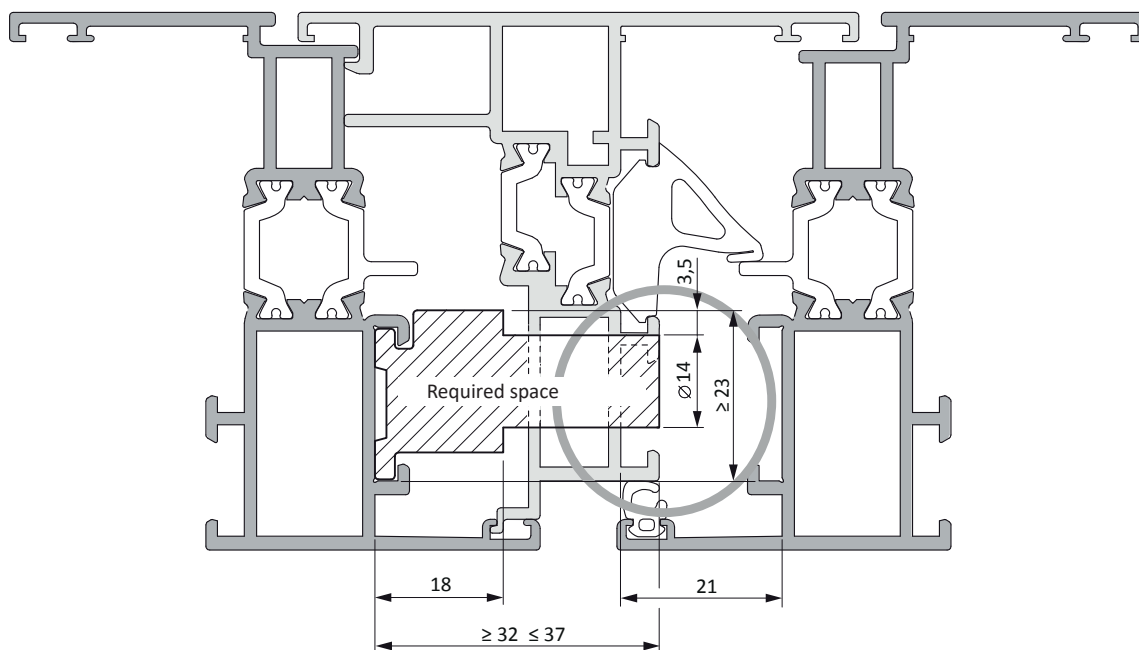


Pivot ALU 300

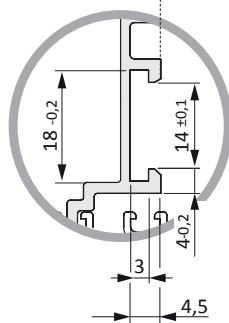




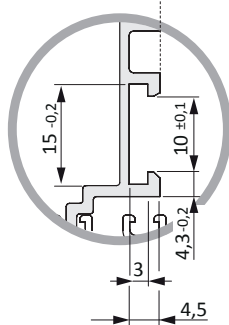
Secondary sash for secondary sash gear



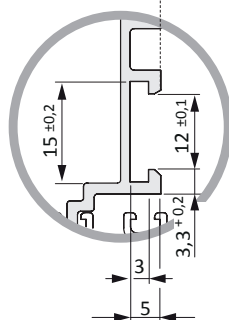
Secondary sash profile A0004

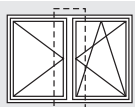


Secondary sash profile A0006



Secondary sash profile A0022





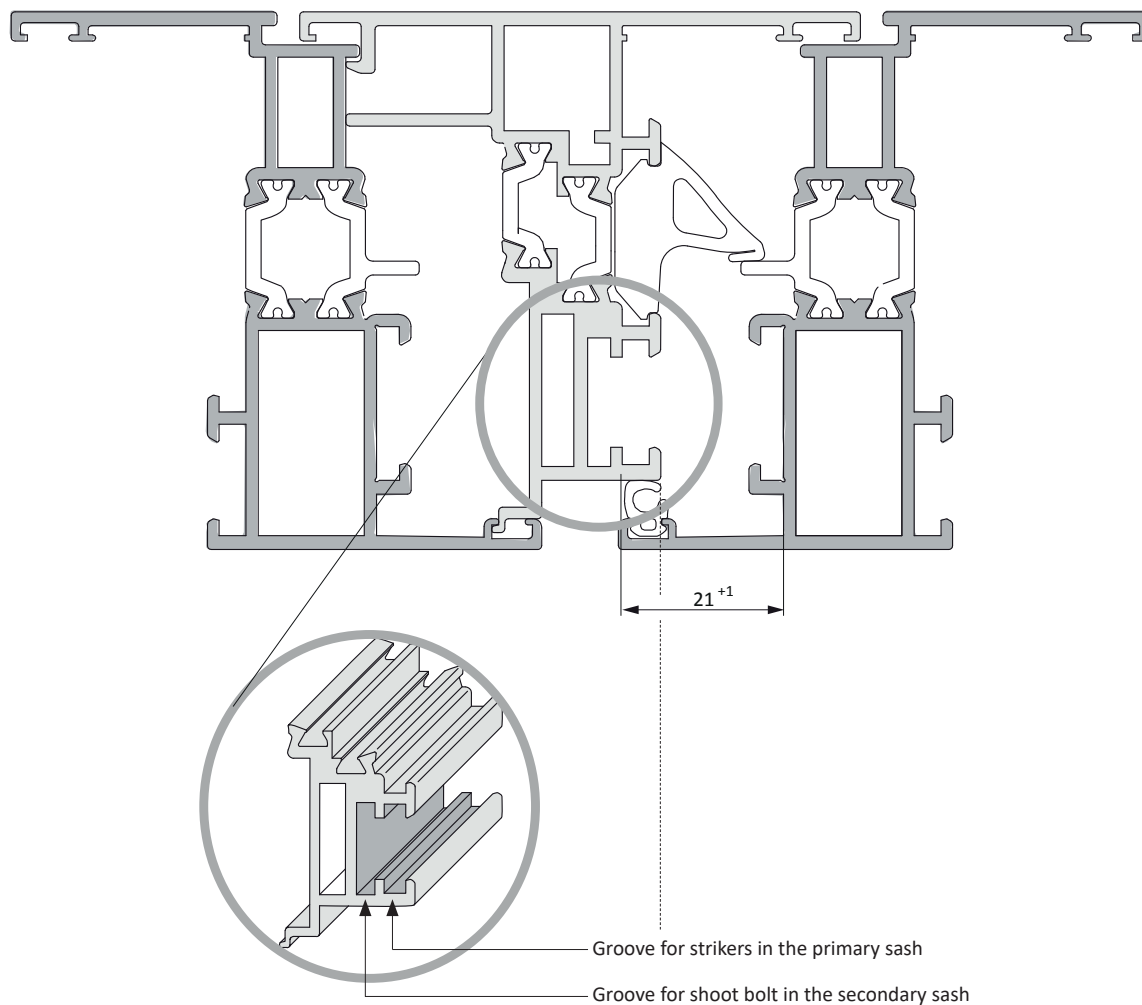
Secondary sash for double groove

Single-sash square turn-only secondary sash
Profile information

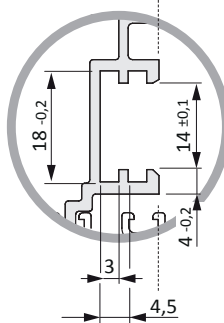
ALU

1

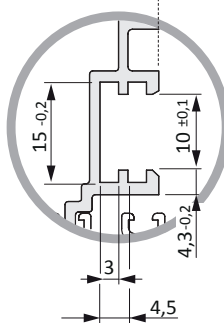
Secondary sash profile for shoot bolt programme

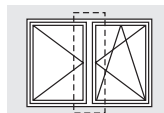
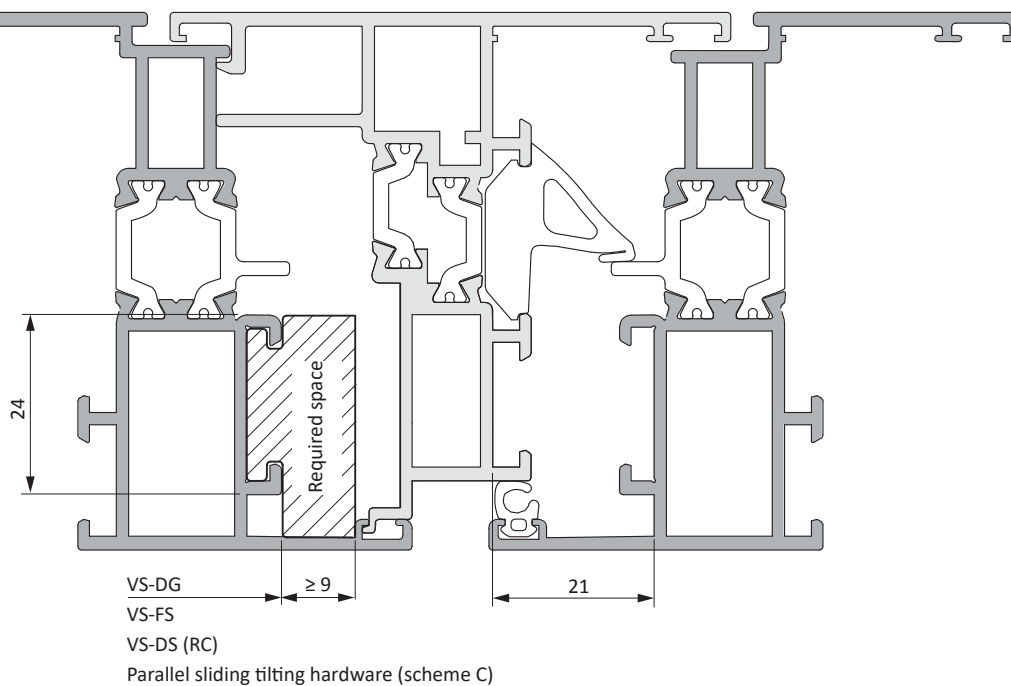


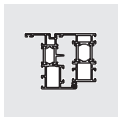
Secondary sash profile DN A0004



Secondary sash profile DN A0006



**Secondary sash profile for second handle application**



2 - secondary sash locking sides

FBS-EUL (1-sash)
VS ALU-DS/A -DS/K (2-sash)

ALU

VS ALU-DS/A -DS/K (A0004)

2-sash square VS ALU-DS/A_VS ALU-DS/K (A0004)

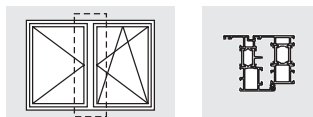
H48.VSL5007EN

2 - 3

2

ALU secondary sash locking sides

Assembly instructions A0004 FBS-EUL



2-sash square turn / turn and tilt

Aluminium eurogroove 15/20

Chamber dimension 21

For anti-mishandling device (primary sash) on the corner drive (FBS-EUL)

Version A0004 with secondary sash: DS/A

Version A0004 with secondary sash shoot bolt: DS/K

For vertical tilt point (KPS)

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1250
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1250
Sash height	(mm)	710/840 ²⁾	2400
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS	The size ranges and diagrams for the relevant fitting programmes are applicable!		

1) hardware-dependent

2) for version DS/A (secondary sash gear)

The following documentation is required:

- profile information ALU20
- assembly instructions ALU 2200-DK/D*
- assembly instructions ALU 5100-DK FBS-EUL
- assembly instructions ALU 5100-D*
- assembly instructions ALU 5200-DK FBS-EUL BD 3,5
- assembly instructions ALU 5200-D BD 3.5*
- assembly instructions ALU 5200-DK FBS-EUL BD 5
- assembly instructions ALU 5200-D BD 5*
- assembly instructions ALU axxent PLUS-DK FBS-EUL
- assembly instructions ALU axxent PLUS-D*

- Document Nr. H45.ALUS001EN
- Document Nr. H48.2200LS003EN
- Document Nr. H48.5100LS001EN
- Document Nr. H48.5100LS005EN
- Document Nr. H48.5200LS001EN
- Document Nr. H48.5200LS005EN
- Document Nr. H48.5200LS014EN
- Document Nr. H48.5200LS010EN
- Document Nr. H48.axntLS007EN
- Document Nr. H48.axntLS018EN

see page 6 for further information.

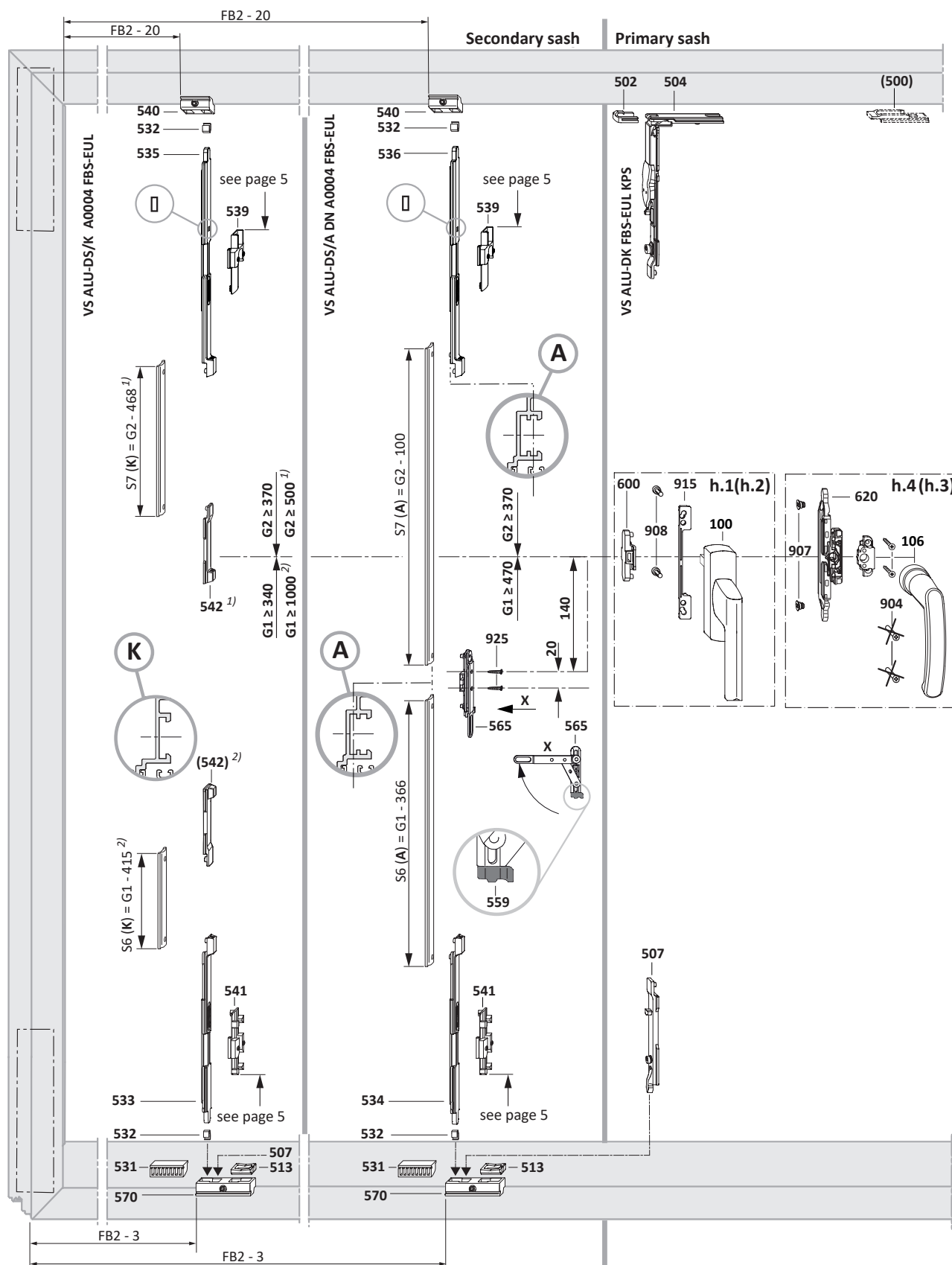
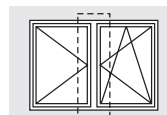
* use with hinge side „D“ only in secondary sash!

Please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



See SIEGENIA download portal for all documentation!



Torque and tooling information

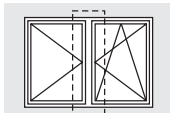
Items	Nm (± 0.25)	
539, 540, 541, 570	1.5	⬡ 2.5
908	4	⬡ 4
904, 907	2.7	⬡ P22
925	2.5	AW 20

1) For activation of the shoot bolt VSO (item 535) by means of locking element (item 542).

2) For activation of the shoot bolt VSU (item 533) by means of locking element (item 542).

Figures show version A.1. Illustration for A.2 accordingly.

For further information and explanations see pages 3 - 5!



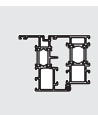
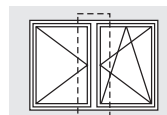
Hardware list

2-sash square turn/turn and tilt locking sides ALU for FBS-EUL

ALU VS
A0004 A/K

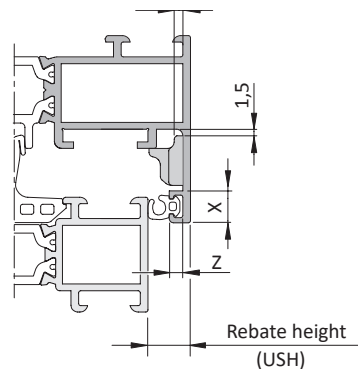
2

	Item	Pieces	Material description		Material number	VE	Material number	VE
h.1	100	1	ALU Si-line handle	Only use in combination with coupling set	See handle overview in SIEGENIA download portal			
h.2	no illus.		ALU Globe handle					
h.3	no illus.		TITAN handle	Only use in combination with gear set	□ 7 mm x Ø 25 mm, cam 10 mm only use in combination with gear set			
h.4	106		ALU Globe RR handle					
Main sash		1	ALU DK FBS-EUL KPS locking side (with FBS on corner drive)		MMVS0310-10001_	1	MMVS0310-10003_	20
	500	1	Locking bolt DK	omitted for ALU axxent PLUS				
	502	1	Clamping piece EUL					
	504	1	Corner drive VSO-FBS					
	no illus.	-	Striker EUL	replaced by item 539				
	507	1	Tilt lock 10 mm					
	no illus.	1	E striker cam 10	replaced by item 541				
	no illus.	1	Tilt locking part	replaced by item 570				
	513	1	Run-up block					
K		0...1	VS ALU-DS/K A0004 FBS-EUL	FH ≥ 710	MMVS0510-10001_	1	MMVS0510-10002_	10
	531	1	Run-up ALU RAL 7001					
	532	2	Stop spring A0172 0.5 mm					
	533	1	Shoot bolt ALU VSU A0004					
	535	1	Shoot bolt ALU VSO A0004					
	539	1	Striker VSO A0172 FBS-EUL					
	540	1	Striker DS A0172					
	541	1	Striker E A0172 cam 10 mm					
	542	0...2	Locking element A0004 RAL 9005	G1 ≥ 1000/G2 ≥ 500				
	570	1	Tilt locking part A0172					
A		0...1	VS ALU-DS/A DN A0004 FBS-EUL	FH ≥ 840	MMVS0520-10001_	1	MMVS0520-10002_	10
	531	1	Run-up ALU RAL 7001					
	532	2	Stop spring A0172 0.5 mm					
	534	1	Shoot bolt ALU VSU/DN A0004					
	536	1	Shoot bolt ALU VSO/DN A0004 FBS-EUL					
	539	1	Striker VSO A0172 FBS-EUL					
	540	1	Striker DS A0172					
	541	1	Striker E A0172 cam 10 mm					
	559	1	Stop RAL 9011					
	565	1	Secondary sash gear DN A0004					
	570	1	Tilt locking part A0172					
	925	2	Drill screw 3.9 x 32					
h.1		0...1	ALU coupling set	only use in combination with h.1/h.2	MMKL0060-10001_	1	MMKL0060-10003_	20
h.2	600	1	Coupling bracket					
	908	2	Cheese head screw M5 x 12					
h.3		0...1	ALU gear set	Only use in combination with h.3/h.4 (see SIEGENIA download portal)	MMGI0090-10001_	1	MMGI0090-10003_	20
h.4	620	1	M6 ESG					
	904	2	Countersunk screw M5 x 35					
	907	2	Coupling screw M6					
Accessories								
	915	0...1	Handle support ALU	Only use in combination with h.1/h.2	-	-	see table page 4	200



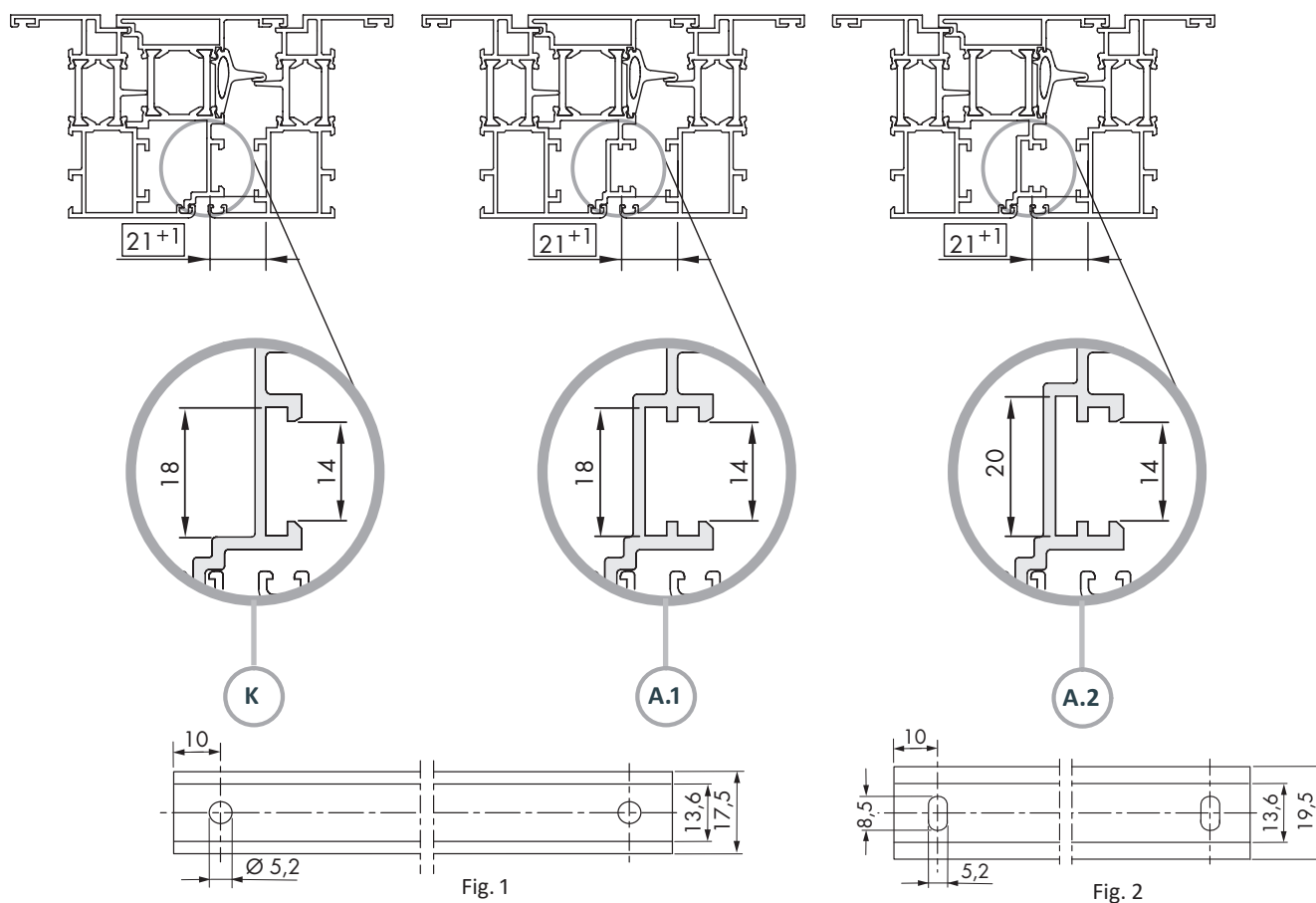
Design variations for handle support (item 915) (h.1/h.2)

USH (mm)	Z (mm)	X ≤ 7 mm	X > 7 ≤ 8.5 mm
7 - 10	≤ 2	MFHA0010-10020_	MFHA0010-10020_
	> 2 ≤ 3		MFHA0020-10020_
	> 3		-



Use of secondary sash locking sides (see page 5)

Y - Y



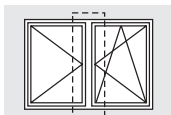
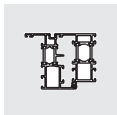
Use of secondary sash locking sides

K: with secondary sash shoot bolt (for operating rod perforation see figure 1)

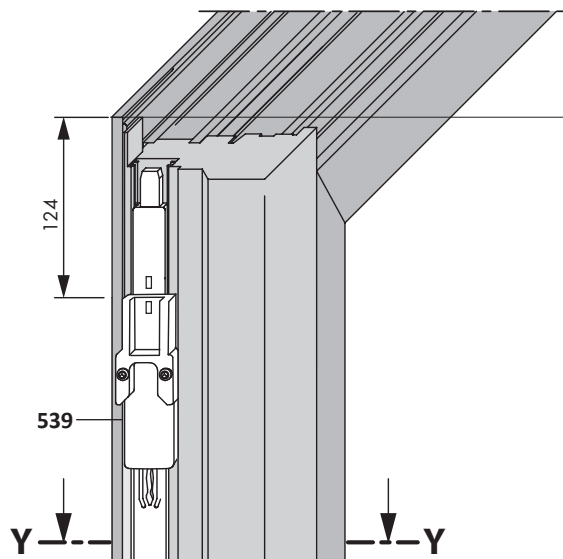
A.1: with secondary sash gear (for operating rod perforation see figure 1)

A.2: with secondary sash gear and groove 14/20 (for operating rod perforation see figure 2)

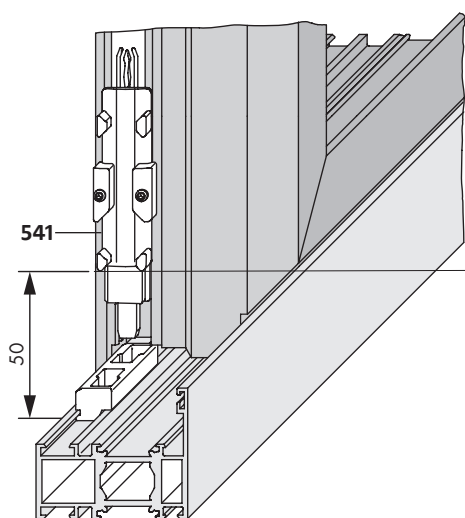
Note: see figure 2 for perforation of operating rods S6 nd S7 (only for A.2)



Jigs

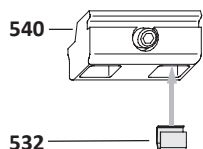


Positioning for striker VSO FBS-EUL (item 539):
Upper edge sash rebate



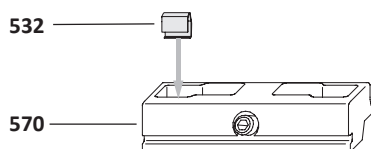
Positioning for striker E (item 541):
Bottom edge bottom edge sash rebate
(see Doc. Nr. H48.VSL008EN, page 5)

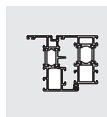
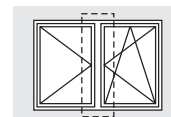
Adjustments of secondary sash



Pressure increase for secondary sash:

adjustment by means of stop spring (item 532) ca. + 0.5 mm.





Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)!
Specifications from the profile manufacturers or system owners for windows and patio doors!



The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

H45.ALUS001EN-01

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ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

MONTAGEANLEITUNG

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ALU

axxent PLUS

Montageanleitung:
ALU axxent PLUS-D/DSFensterysteme
Türsysteme
Komfortsysteme

ALU maintenance instructions

see Document Nr.: H49.ALUS001EN

MAINTENANCE INSTRUCTIONS

SIEGENIA®
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ALU

Maintenance instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
AU RB/SF

Window systems
Door systems
Comfort systems

ALU service instructions

see Document Nr.: H47.ALUS001EN

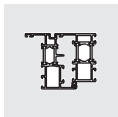
SERVICE INSTRUCTIONS

SIEGENIA®
brings spaces to life

ALU

Service instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
AU RB/SF

Window systems
Door systems
Comfort systems



3 - secondary sash locking sides

FBS-G (1-sash)
VS ALU-DS/A -DS/K (2-sash)

ALU

VS ALU-DS/A -DS/K (A0004)

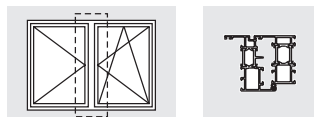
2-sash square VS ALU-DS/A_VS ALU-DS/K (A0004)

H48.VSL008EN

3 - 3

ALU secondary sash locking sides

Assembly instructions A0004 FBS-G



2-sash square turn / turn and tilt

Aluminium eurogroove 15/20

Chamber dimension 21

For anti-mishandling device (primary sash) at handle position (FBS-G)

Version A0004 with secondary sash slip-on gear: DS/A

Version A0004 with secondary sash shoot bolt: DS/K

For vertical tilt point (KPS)

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1250
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1250
Sash height	(mm)	700/830 ²⁾	2400
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS	The size ranges and diagrams for the relevant fitting programmes are applicable!		

1) hardware-dependent

2) for version DS/A (secondary sash gear)

The following documentation is required:

- profile information ALU20
- assembly instructions ALU 2200-DK/D*
- assembly instructions ALU 5100-DK FBS-G
- assembly instructions ALU 5100-D*
- assembly instructions ALU 5200-DK FBS-G BD 3,5
- assembly instructions ALU 5200-D BD 3.5*
- assembly instructions ALU 5200-DK FBS-G BD 5
- assembly instructions ALU 5200-D BD 5*
- assembly instructions ALU axxent PLUS-DK FBS-G
- assembly instructions ALU axxent PLUS-D*

see page 6 for further information.

* use with hinge side „D“ only in secondary sash!

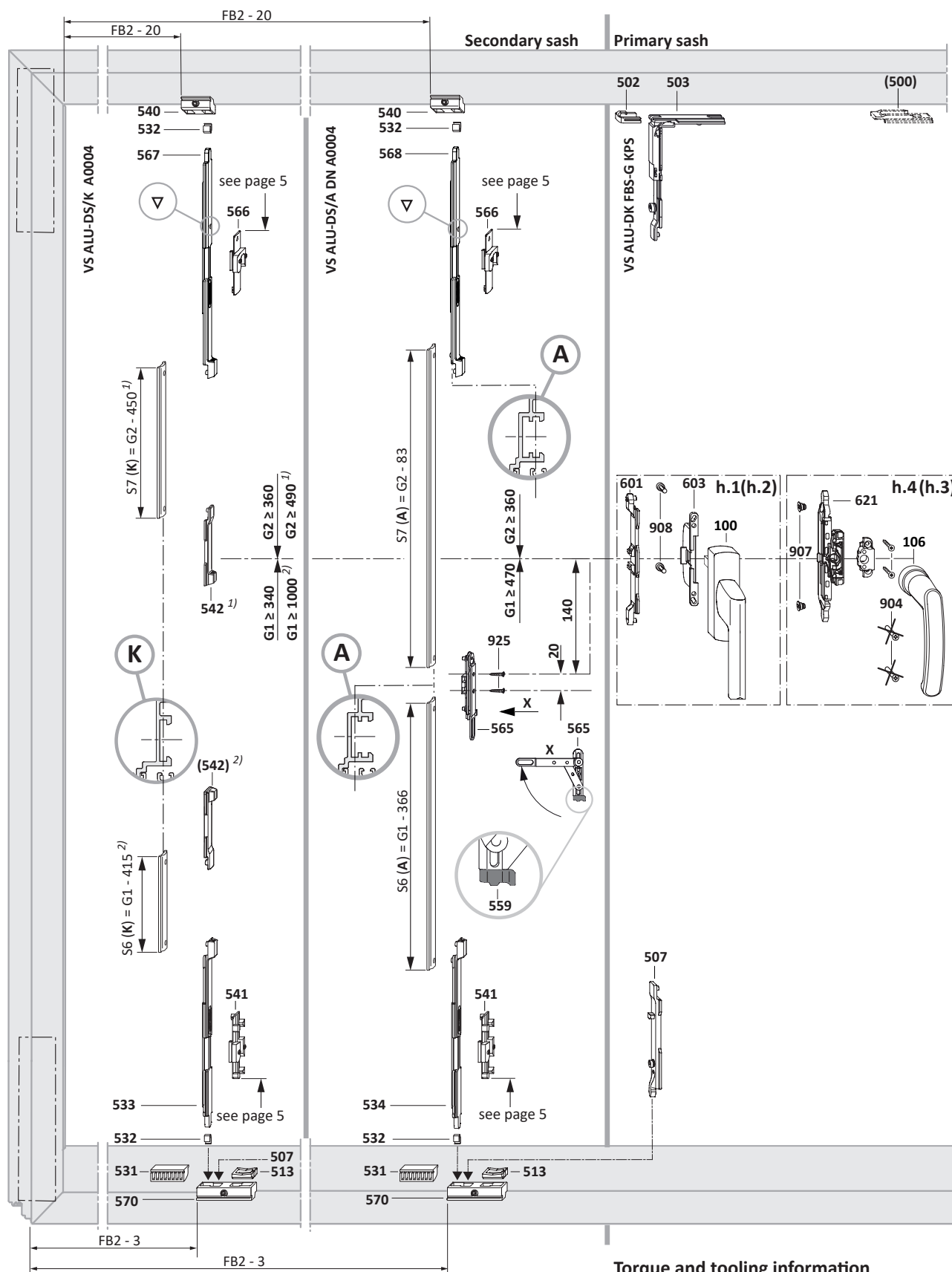
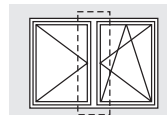
- Document Nr. H45.ALUS001EN
- Document Nr. H48.2200LS003EN
- Document Nr. H48.5100LS002EN
- Document Nr. H48.5100LS005EN
- Document Nr. H48.5200LS002EN
- Document Nr. H48.5200LS005EN
- Document Nr. H48.5200LS013EN
- Document Nr. H48.5200LS010EN
- Document Nr. H48.axntLS008EN
- Document Nr. H48.axntLS018EN

Please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



See SIEGENIA download portal for all documentation!



Torque and tooling information

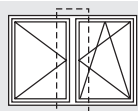
Items	Nm (± 0.25)	
540, 541, 566, 570	1.5	⬡ 2.5
908	4	⬡ 4
904, 907	2.7	⬡ PZ2
925	2.5	AW 20

1) For activation of the shoot bolt VSO (item 567) by means of locking element (item 542).

2) For activation of the shoot bolt VSU (item 533) by means of locking element (item 542).

Figures show version A.1. Illustration for A.2 accordingly.

For further information and explanations see pages 3 - 5!



Hardware list

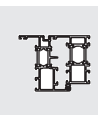
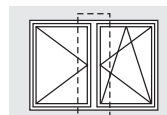
2-sash square turn/turn and tilt
locking sides ALU for FBS-G

ALU VS

A0004 A/K

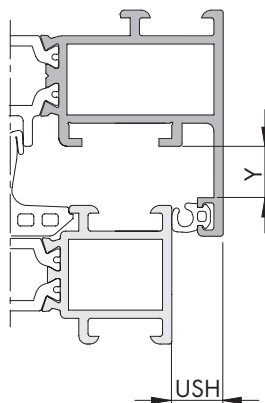
	Item	Pieces	Material description		Material number	VE	Material number	VE	
h.1	100	1	ALU Si-line handle	Only use in combination with coupling set	See handle overview in SIEGENIA download portal				
h.2	no illus.		ALU Globe handle						
h.3	no illus.		TITAN handle	Only use in combination with gear set	□ 7 mm x Ø 25 mm, cam 10 mm only use in combination with gear set				
h.4	106		ALU Globe RR handle		See handle ALU Globe RR in SIEGENIA download portal				
Main sash		1	Locking side ALU-DK FBS-G KPS (for FBS at handle position)		MMVS0250-10001_	1	MMVS0250-10003_	20	
	500	1	Locking bolt DK	omitted for ALU axxent PLUS					
	502	1	Clamping piece EUL						
	503	1	VSO corner drive						
	no illus.	-	Striker	replaced by item 566					
	507	1	Tilt lock 10 mm						
	no illus.	1	E striker cam 10	replaced by item 541					
	no illus.	1	Tilt locking part	replaced by item 570					
	513	1	Run-up block						
K		0...1	VS ALU-DS/K A0004	FH ≥ 700/830	MMVS0490-10001_	1	MMVS0490-10002_	10	
	531	1	Run-up ALU RAL 7001						
	532	2	Stop spring A0172 0.5 mm						
	533	1	Shoot bolt ALU VSU A0004						
	540	1	Striker DS A0172						
	541	1	Striker E A0172 cam 10 mm						
	542	0...2	Locking element A0004 RAL 9005	G1 ≥ 1000/G2 ≥ 490					
	566	1	Striker VSO A0172						
	567	1	Shoot bolt ALU VSO A0004						
	570	1	Tilt locking part A0172						
A		0...1	VS ALU-DS/A DN A0004	FH ≥ 830	MMVS0500-10001_	1	MMVS0500-10002_	10	
	531	1	Run-up ALU RAL 7001						
	532	2	Stop spring A0172 0.5 mm						
	534	1	Shoot bolt ALU VSU/DN A0004						
	540	1	Striker DS A0172						
	541	1	Striker E A0172 cam 10 mm						
	559	1	Stop RAL 9011						
	565	1	Secondary sash gear DN A0004						
	566	1	Striker VSO A0172						
	568	1	Shoot bolt ALU VSO/DN A0004						
	570	1	Tilt locking part A0172						
	925	2	Drill screw 3.9 x 32						
h.1		0...1	Coupling set ALU FBS	Y > 9 ≤ 10mm	(Only use in combination with h.1/h.2 (see page 4 for note on rebate height (USH) and for dimension Y)	MMKL0030-10001_	1	MMKL0030-10003_	20
			(with FBS on gear)	Y ≥ 10mm		MMKL0010-10001_	1	MMKL0010-10003_	20
	h.2	601	1	ALU coupling bracket					
		603	1	Anti-mishandling device					
		908	2	Cheese head screw M5 x 12					
h.3		0...1	Gear set ALU FBS	Only use in combination with h.3/h.4 (see SIEGENIA download portal)	MMGI0080-10001_	1	MMGI0080-10003_	20	
h.4	621	1	ESG M6 FBS						
	904	2	Countersunk screw M5 x 35						
	907	2	Coupling screw M6						

3



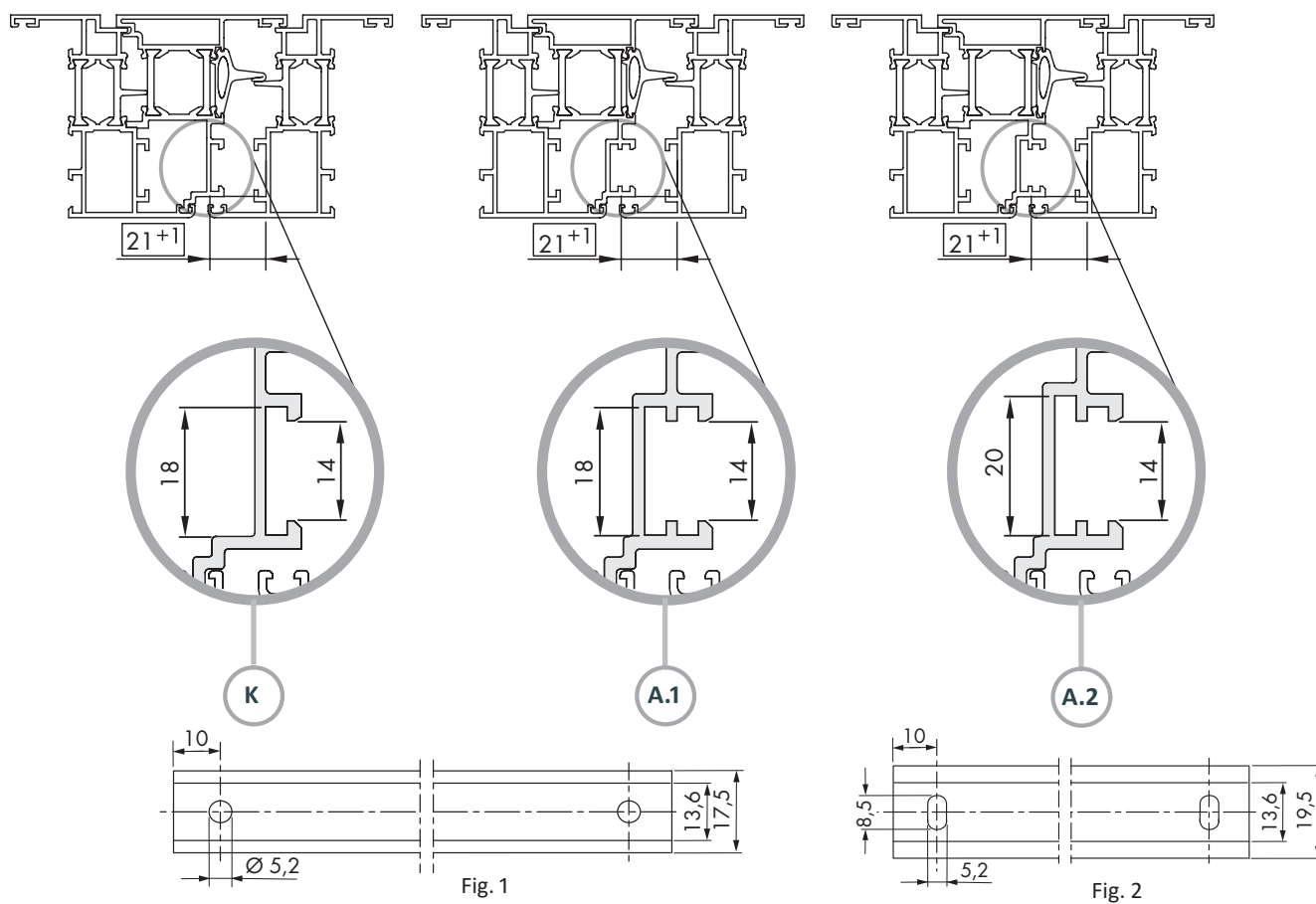
Design versions for coupling set (item 601-603-908) (h.1/h.2)

USH (mm)	Y (mm)	Material nr.
7 - 10	$> 9 \leq 10$	MMKL0030-10001_
	> 10	MMKL0010-10001_



Use of secondary sash locking sides (see page 5)

Y - Y



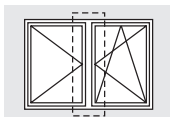
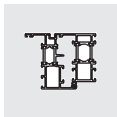
Use of secondary sash locking sides

K: with secondary sash shoot bolt (for operating rod perforation see figure 1)

A.1: with secondary sash gear (for operating rod perforation see figure 1)

A.2: with secondary sash gear and groove 14/20 (for operating rod perforation see figure 2)

Note: see figure 2 for perforation of operating rods S6 nd S7 (only for A.2)



Jigs, adjustments

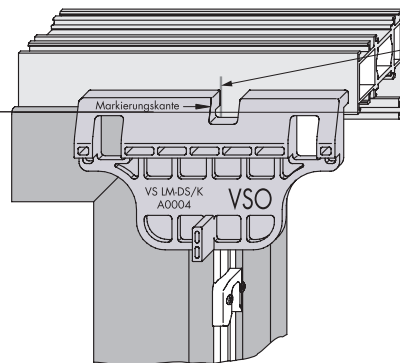
2-sash square turn/turn and tilt
locking sides ALU for FBS-G

ALU VS
A0004 A/K

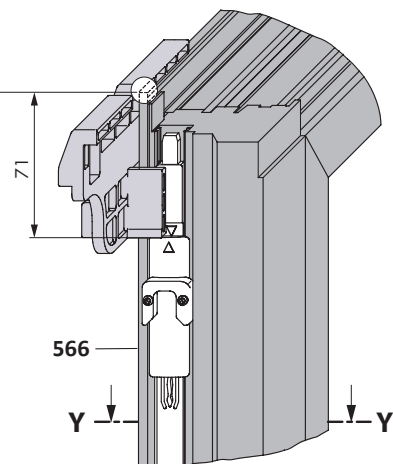
Jigs

Positioning for
striker VSO (item 566):

Upper edge
sash rebate



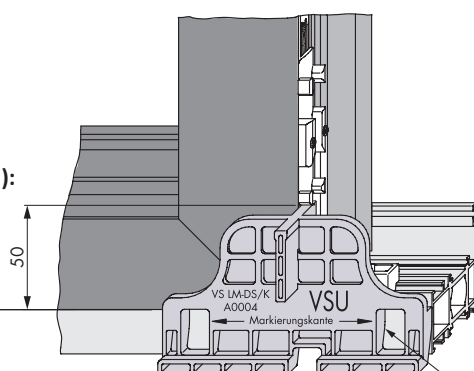
For item 540:
mark here



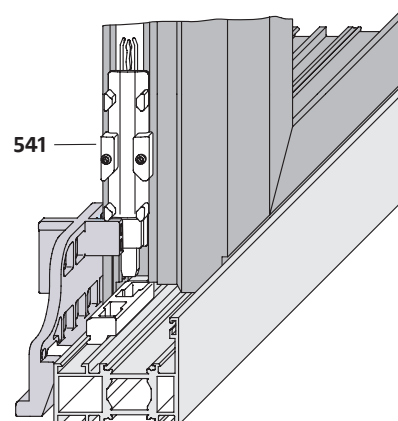
Name	Material nr.	VE
Jig ALU EL A0004	879 504	1

Positioning for
striker E VSU (item 541):

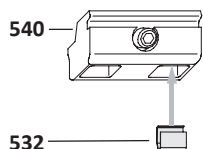
bottom edge
sash rebate



For item 570:
mark here

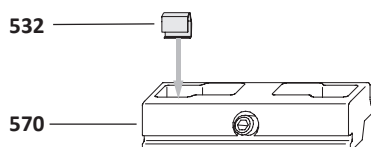


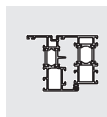
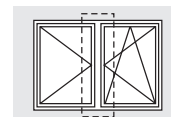
Adjustments of secondary sash



Pressure increase for secondary sash:

adjustment by means of stop spring (item 532) ca. + 0.5 mm.





Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VHB directive as well as the further applicable documents)
Specifications from the profile manufacturers or system owners for windows and patio doors!



The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

H45.ALUS001EN-01

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ASSEMBLY INSTRUCTIONS

SIEGENIA®
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ALU

axxent PLUS

Assembly instructions:
ALU axxent PLUS-D/DSWindow systems
Door systems
Comfort systems

ALU maintenance instructions

see Document Nr.: H49.ALUS001EN

ALU service instructions

see Document Nr.: H47.ALUS001EN

MAINTENANCE INSTRUCTIONS

SIEGENIA®
brings spaces to life

ALU

Maintenance instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
AU RB/SF

Window systems
Door systems
Comfort systems

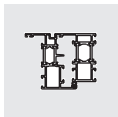
SERVICE INSTRUCTIONS

SIEGENIA®
brings spaces to life

ALU

Service instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
AU RB/SF

Window systems
Door systems
Comfort systems



4 - secondary sash locking sides

FBS-G A0102 (1-sash)
VS ALU-DS/A -DS/K (2-sash)

ALU

VS ALU-DS/A -DS/K (A0004)

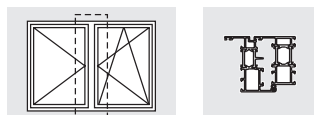
2-sash square VS ALU-DS/A_VS ALU-DS/K (A0004)

H48.VSLS011EN

4 - 3

ALU secondary sash locking sides

Assembly instructions A0004 FBS-G A0102



2-sash square turn / turn and tilt

Aluminium eurogroove 15/20

Chamber dimension 21

For anti-mishandling device (primary sash) at handle position (FBS-G A0102)

Version A0004 with secondary sash gear: DS/A

Version A0004 with secondary sash shoot bolt: DS/K

For vertical tilt point (KPS)

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1250
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1250
Sash height	(mm)	770/900 ²⁾	2400
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS	The size ranges and diagrams for the relevant fitting programmes are applicable!		

1) hardware-dependent

2) for version DS/A (secondary sash gear)

The following documentation is required:

- profile information ALU20
- assembly instructions ALU 2200-DK/D*
- assembly instructions ALU 5100-DK FBS-G
- assembly instructions ALU 5100-D*
- assembly instructions ALU 5200-DK FBS-G BD 3,5
- assembly instructions ALU 5200-D BD 3.5*
- assembly instructions ALU 5200-DK FBS-G BD 5
- assembly instructions ALU 5200-D BD 5*
- assembly instructions ALU axxent PLUS-DK FBS-G
- assembly instructions ALU axxent PLUS-D*

see page 6 for further information.

* use with hinge side „D“ only in secondary sash!

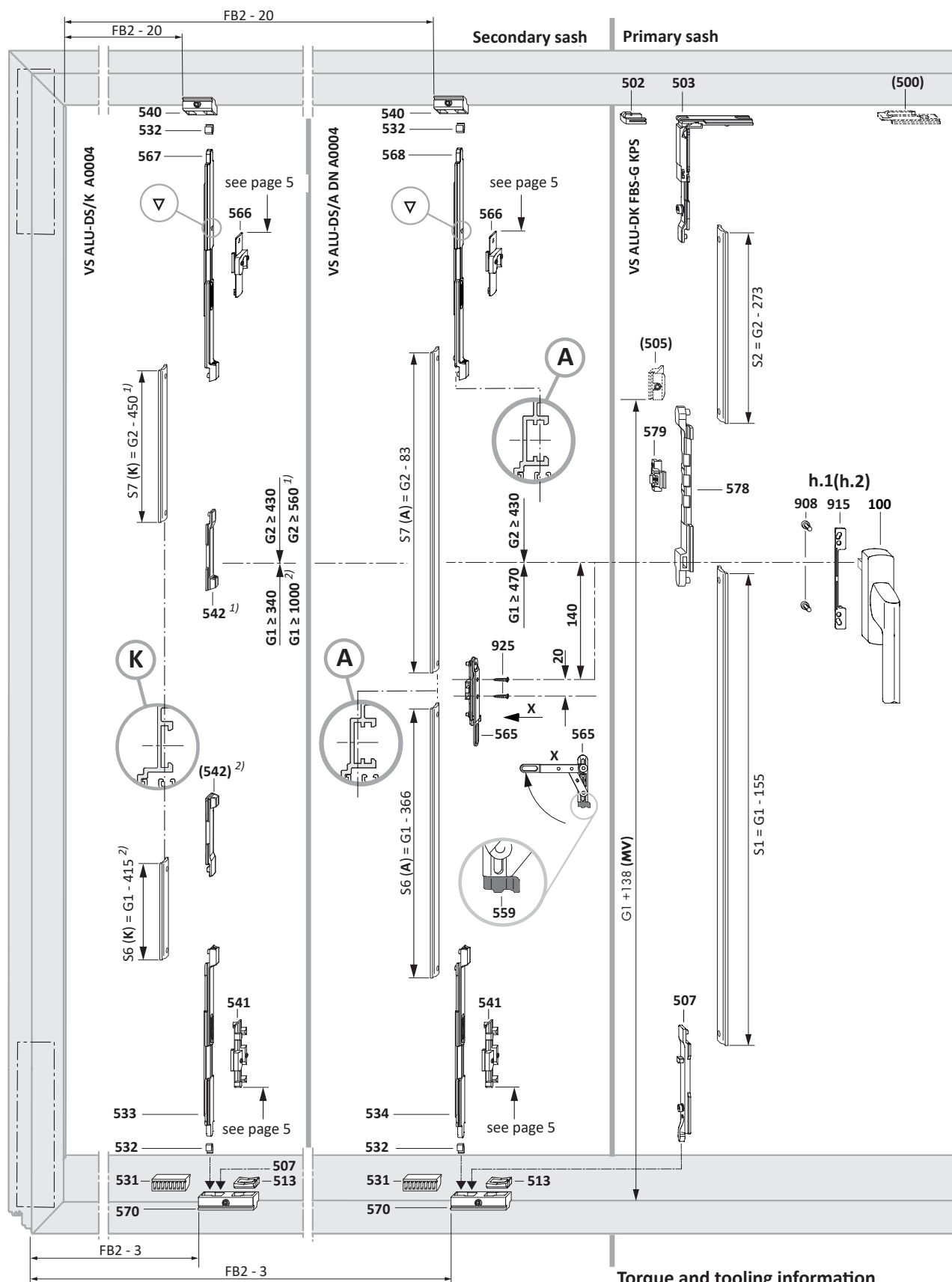
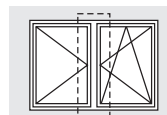
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- Document Nr. H48.2200LS003EN
- Document Nr. H48.5100LS002EN
- Document Nr. H48.5100LS005EN
- Document Nr. H48.5200LS002EN
- Document Nr. H48.5200LS005EN
- Document Nr. H48.5200LS013EN
- Document Nr. H48.5200LS010EN
- Document Nr. H48.axntLS008EN
- Document Nr. H48.axntLS018EN

Please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



See SIEGENIA download portal for all documentation!



Torque and tooling information

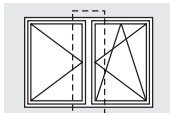
Items	Nm (± 0.25)	
505, 540, 541, 566, 570, 579	1.5	2.5
908	2.5	4
925	2.5	AW 20

1) For activation of the shoot bolt VSO (item 567) by means of locking element (item 542).

2) For activation of the shoot bolt VSU (item 533) by means of locking element (item 542).

Figures show version A.1. Illustration for A.2 accordingly.

For further information and explanations see pages 3 - 5!



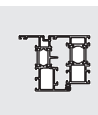
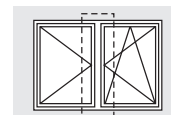
Hardware list

2-sash square turn/turn and tilt
locking sides ALU for FBS-G

ALU VS

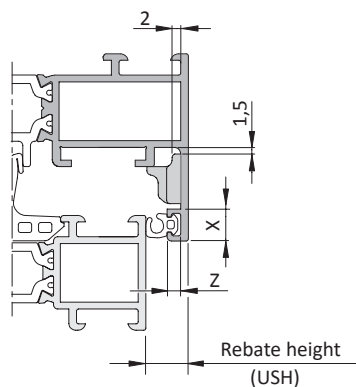
A0004/A0102

	Item	Pieces	Material description	Material number	VE	Material number	VE
h.1	100	1	ALU Si-line handle	See handle overview in the SIEGENIA download portal			
h.2	no illus.	1	ALU Globe handle				
Primary sash		1	Locking side ALU-DK FBS-G KPS (for FBS at handle position)	MMVS0250-10001_	1	MMVS0250-10003_	20
		500	Locking bolt DK omitted for ALU axxent PLUS				
		502	Clamping piece EUL				
		503	VSO corner drive				
	no illus.	-	Striker replaced by item 566				
		507	Tilt lock 10 mm				
	no illus.	1	E striker cam 10 replaced by item 541				
	no illus.	1	Tilt locking part replaced by item 570				
	513	1	Run-up block				
K		0...1	VS ALU-DS/K A0004 FH ≥ 770	MMVS0490-10001_	1	MMVS0490-10002_	10
		531	Run-up ALU RAL 7001				
		532	Stop spring A0172 0.5 mm				
		533	Shoot bolt ALU VSU A0004				
		540	Striker DS A0172				
		541	Striker E A0172 cam 10 mm				
		542	0...2 Locking element A0004 RAL 9005 G1 ≥ 1000/G2 ≥ 560				
		566	Striker VSO A0172				
		567	Shoot bolt ALU VSO A0004				
		570	Tilt locking part A0172				
A		0...1	VS ALU-DS/A DN A0004 FH ≥ 900	MMVS0500-10001_	1	MMVS0500-10002_	10
		531	Run-up ALU RAL 7001				
		532	Stop spring A0172 0.5 mm				
		534	Shoot bolt ALU VSU/DN A0004				
		540	Striker DS A0172				
		541	Striker E A0172 cam 10 mm				
		559	Stop RAL 9011				
		565	Secondary sash gear DN A0004				
		566	Striker VSO A0172				
		568	Shoot bolt ALU VSO/DN A0004				
		570	Tilt locking part A0172				
		925	2 Drill screw 3.9 x 32				
		0...1	Coupling set ALU FBS A0102	MMKL0050-10001_	1	MMKL0050-10003_	20
		578	Coupling bracket A0172				
		579	Anti-mishandling device ALU				
		908	2 Cheese head screw M5 x 12				
Accessories							
	915	0...1	Handle support ALU	-	-	see table below	200



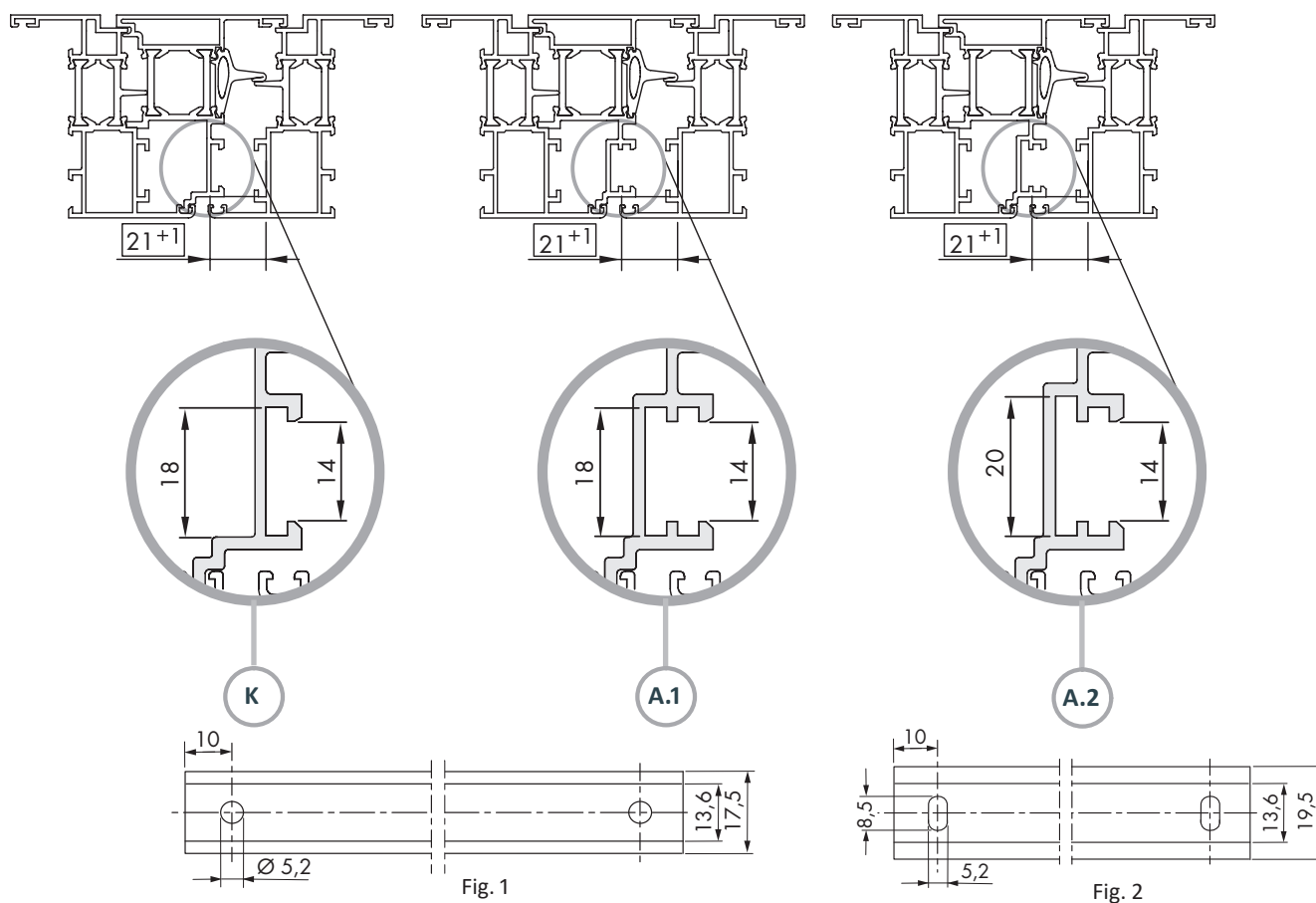
Design variations for handle support (item 915) (h.1/h.2)

USH (mm)	Z (mm)	X ≤ 7 mm	X > 7 ≤ 8.5 mm
7 - 10	≤ 2	MFHA0010-10020_	MFHA0010-10020_
	> 2 ≤ 3		MFHA0020-10020_
	> 3		-



Use of secondary sash locking sides (see page 5)

Y - Y



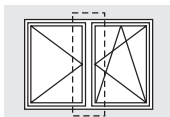
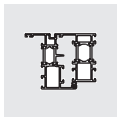
Use of secondary sash locking sides

K: with secondary sash shoot bolt (for operating rod perforation see figure 1)

A.1: with secondary sash gear (for operating rod perforation see figure 1)

A.2: with secondary sash gear and groove 14/20 (for operating rod perforation see figure 2)

Note: see figure 2 for perforation of operating rods S6 nd S7 (only for A.2)



Jigs, adjustments

2-sash square turn/turn and tilt
locking sides ALU for FBS-G

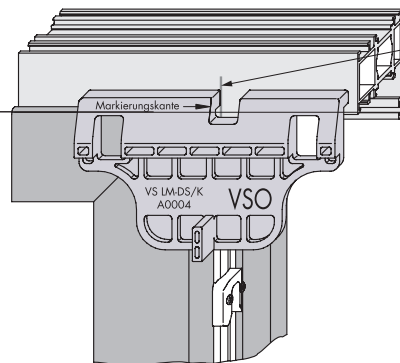
ALU VS

A0004/A0102

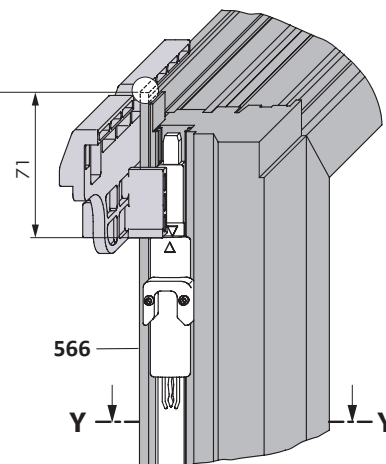
Jigs

Positioning for
striker VSO (item 566):

Upper edge
sash rebate



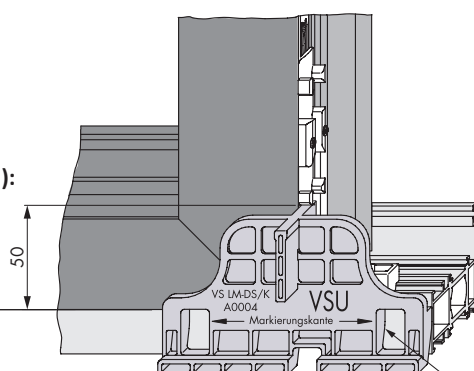
For item 540:
mark here



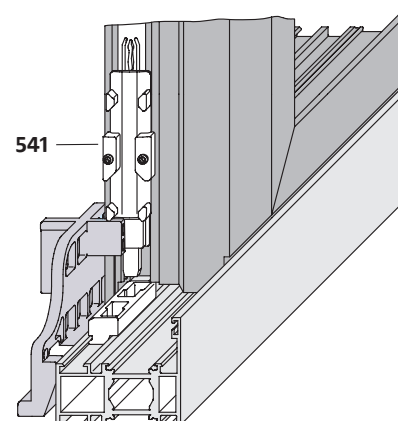
Name	Material nr.	VE
Jig ALU EL A0004	879 504	1

Positioning for
striker E VSU (item 541):

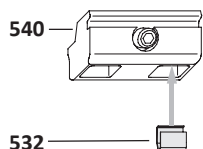
Bottom edge
sash rebate



For item 570:
mark here

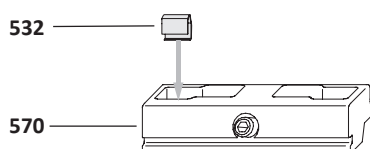


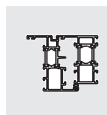
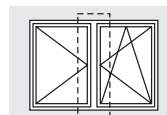
Adjustments of secondary sash



Pressure increase for secondary sash:

adjustment by means of stop spring (item 532) ca. + 0.5 mm.





Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VIBH directive as well as the further applicable documents)!
Specifications from the profile manufacturers or system owners for windows and patio doors!

The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

ASSEMBLY INSTRUCTIONS

SIEGENIA
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ALU

axxent PLUS

Assembly instructions:
ALU axxent PLUS-D/DS

Window systems
Door systems
Comfort systems

H45.ALUS001EN-01

SIEGENIA

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ALU maintenance instructions

see Document Nr.: H49.ALULS001EN

ALU service instructions

see Document Nr.: H47.ALUS001EN

MAINTENANCE INSTRUCTIONS

SIEGENIA
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ALU

Maintenance instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems

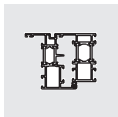
SERVICE INSTRUCTIONS

SIEGENIA
brings spaces to life

ALU

Service instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems



5 - secondary sash locking sides

FBS-EUL (1-sash)
VS ALU-DS/A -DS/K (2-sash)

ALU

VS ALU-DS/A -DS/K (A0006/A0026)

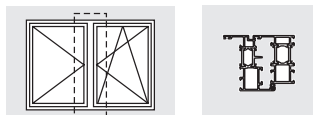
2-sash square VS ALU-DS/A_VS ALU-DS/K (A0006/A0026)

H48.VSLS009EN

5 - 3

ALU secondary sash locking sides

Assembly instructions A0006/A0026 FBS-EUL



2-sash square turn / turn and tilt

Aluminium eurogroove 15/20

Chamber dimension 21

For anti-mishandling device (primary sash) on the corner drive (FBS-EUL)

Version A0006/A0026 with secondary sash gear: DS/A

Version A0006/A0026 with secondary sash shoot bolt: DS/K

For vertical tilt point (KPS)/horizontal tilt point (KPW)

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1250
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1250
Sash height	(mm)	830/810 ²⁾	2400
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS	The size ranges and diagrams for the relevant fitting programmes are applicable!		

1) hardware-dependent

2) for version DS/A (secondary sash gear)

The following documentation is required:

- profile information ALU20
- assembly instructions ALU 2200-DK/D*
- assembly instructions ALU 5100-DK FBS-EUL
- assembly instructions ALU 5100-D*
- assembly instructions ALU 5200-DK FBS-EUL BD 3.5
- assembly instructions ALU 5200-D BD 3.5*
- assembly instructions ALU 5200-DK FBS-EUL BD 5
- assembly instructions ALU 5200-D BD 5*
- assembly instructions ALU axxent PLUS-DK FBS-EUL
- assembly instructions ALU axxent PLUS-D*

- Document Nr. H45.ALULS001EN
- Document Nr. H48.2200LS003EN
- Document Nr. H48.5100LS001EN
- Document Nr. H48.5100LS005EN
- Document Nr. H48.5200LS001EN
- Document Nr. H48.5200LS005EN
- Document Nr. H48.5200LS014EN
- Document Nr. H48.5200LS010EN
- Document Nr. H48.axntLS007EN
- Document Nr. H48.axntLS018EN

see page 6 for further information.

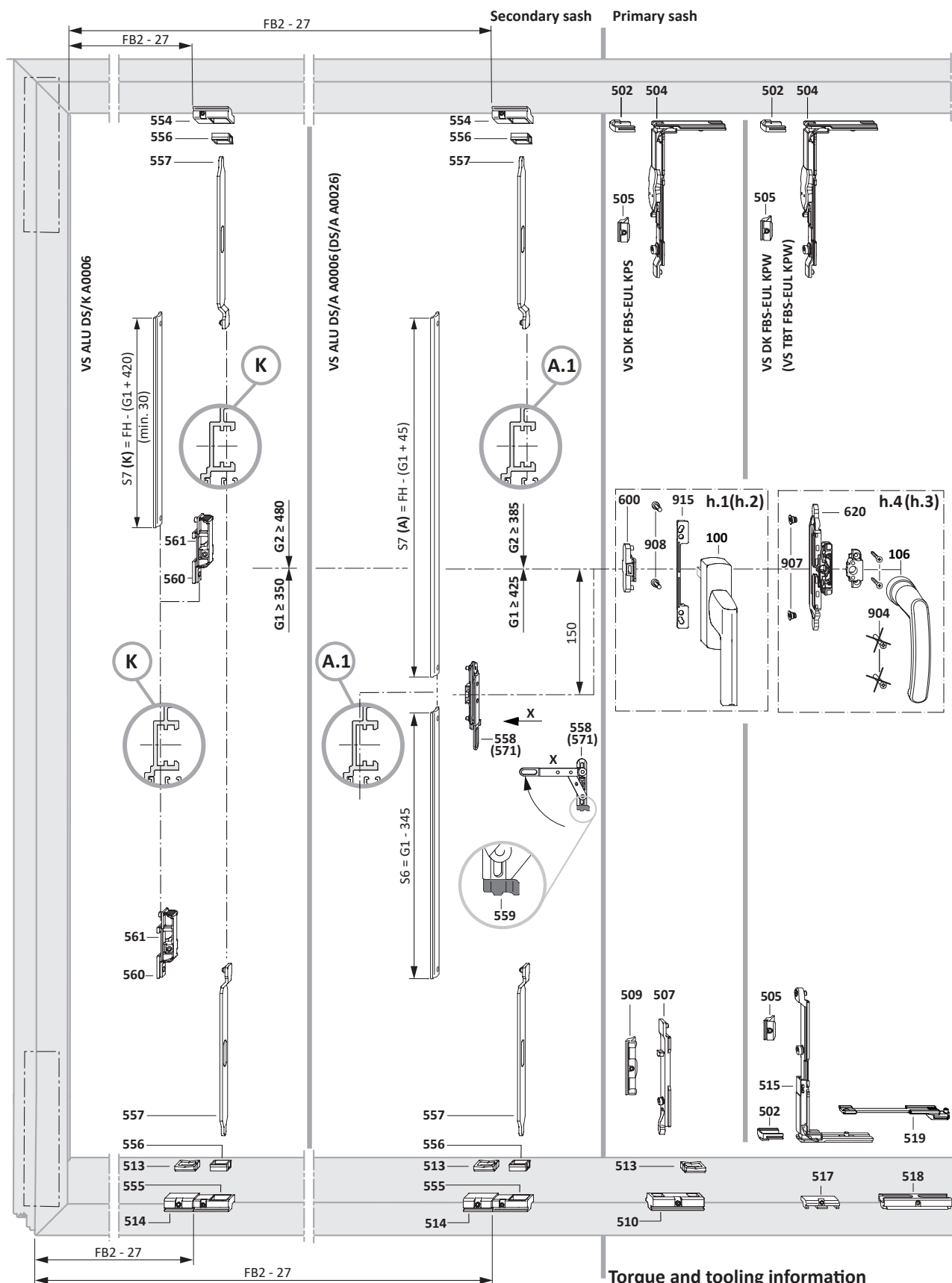
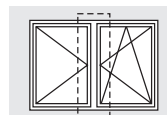
* use with hinge side „D“ only in secondary sash!

Please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



See SIEGENIA download portal for all documentation!

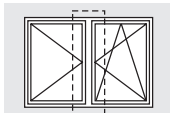


Figures show version A006 (A.1).
Illustration for A0026 (A.2) accordingly.

For further information and explanations see pages 3 - 5!

Torque and tooling information

Items	Nm (± 0.25)	
505, 506, 509, 510, 514, 517, 518, 554, 555, 560	1.5	⬡ 2.5
908	2.5	⬡ 4
904, 907	2.7	⬡ P22



Hardware list

2-sash square turn/turn and tilt
Locking sides ALU for FBS-EUL

ALU VS

A0006/A0026

	Item	Pieces	Material description		Material number	VE	Material number	VE
	h.1	100	ALU Si-line handle	Only use in combination with coupling set	See handle overview in the SIEGENIA download portal		□ 7 mm x Ø 25 mm, cam 10 mm only use in combination with gear set	
	h.2	no illus.	ALU Globe handle					
	h.3	no illus.	TITAN handle	Only use in combination with gear set				
	h.4	106	ALU Globe RR handle					
Primary sash		0...1	VS ALU-DK FBS-EUL KPS (with FBS on corner drive)		MMVS0310-10001_	1	MMVS0310-10003_	20
	no illus.	0...1	Locking bolt DK	omitted for ALU axsent PLUS				
	502	1	Clamping piece EUL					
	504	1	Corner drive VSO-FBS					
	506	1	Striker EUL					
	507	1	Tilt lock 10 mm					
	509	1	E striker cam 10					
	510	1	Tilt locking part					
	513	1	Run-up block					
		0...1	VS ALU-DK FBS-EUL KPW (with FBS on corner drive)		MMVS0450-10001_	1	MMVS0450-10003_	20
	no illus.	0...1	Locking bolt DK	omitted for ALU axsent PLUS				
	502	2	Clamping piece EUL					
	504	1	Corner drive VSO-FBS					
	505	1	Striker					
	506	1	Striker EUL					
	515	1	Corner drive VSU					
	517	1	Run-up block					
	518	1	Tilt locking part					
	519	1	Tilt lock DK					
		0...1	VS ALU-TBT FBS-EUL KPW (with FBS on corner drive)		MMVS0460-10001_	1	MMVS0460-10003_	20
	no illus.	0...1	TBT locking bolt	omitted for ALU axsent PLUS				
	502	2	Clamping piece EUL					
	504	1	Corner drive VSO-FBS					
	505	1	Striker					
	506	1	Striker EUL					
	515	1	Corner drive VSU					
	516	1	Tilt lock					
	517	1	Run-up block					
	518	1	Tilt locking part					
K		0...1	VS ALU-DS/K A0006 ¹⁾	FH ≥ 830	860830	1	249338	20
	513	1	Run-up block RAL 7001					
	514	1	Run up block TBT RAL 9005					
	554	1	Striker DS RH					
	555	1	Striker DS LH					
	556	2	Pressure piece					
	557	2	ALU shoot bolt					
	560	2	Clamping piece					
	561	2	Locking element RAL 9011	Installation also optionally on VSU (patio doors)				
A.1		0...1	VS ALU-DS/A DN A0006	FH ≥ 810	860823	1	249321	20
	513	1	Run-up block RAL 7001					
	514	1	Run up block TBT RAL 9005					
	554	1	Striker DS RH					
	555	1	Striker DS LH					
	556	2	Pressure piece					
	557	2	ALU shoot bolt					
	559	1	Stop RAL 9011					
	571	1	Secondary sash gear					

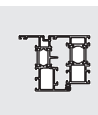
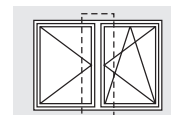
1) can also be used for version A0026 (A.2)

ALU VS

A0006/A0026

Versions, use VS

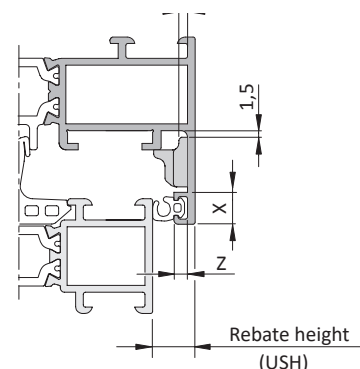
2-sash square turn/turn and tilt
Locking sides ALU for FBS-EUL



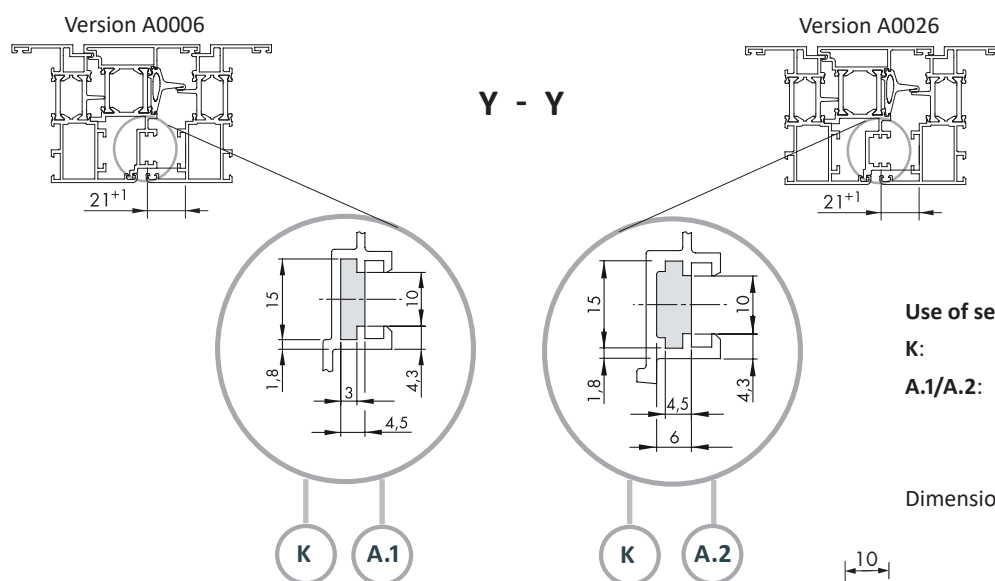
	Item	Pieces	Material description	Material number	VE	Material number	VE
A.2	0...1	VS ALU-DS/A DN A0026	FH ≥ 810	864425	1	252192	20
	513	1	Run-up block RAL 7001				
	514	1	Run up block TBT RAL 9005				
	554	1	Striker DS RH				
	555	1	Striker DS LH				
	556	2	Pressure piece				
	557	2	ALU shoot bolt				
	558	1	Secondary sash gear A0026				
	559	1	Stop RAL 9011				
h.1	0...1	ALU coupling set	only use in combination with h.1/h.2	MMKL0060-10001_	1	MMKL0060-10003_	20
h.2	600	1	Coupling bracket				
	908	2	Cheese head screw M5 x 12				
h.3	0...1	ALU gear set	Only use in combination with h.3/h.4 (see SIEGENIA download portal)	MMGI0090-10001_	1	MMGI0090-10003_	20
h.4	620	1	M6 ESG				
	904	2	Countersunk screw M5 x 35				
	907	2	Coupling screw M6				
Accessories							
	915	0...1	Handle support ALU	Only use in combination with h.1/h.2	-	see table below	200

Design variations for handle support (item 915) (h.1/h.2)

USH (mm)	Z (mm)	X ≤ 7 mm	X > 7 ≤ 8.5 mm
7 - 10	≤ 2	MFHA0010-10020_	MFHA0010-10020_
	> 2 ≤ 3		MFHA0020-10020_
	> 3		-



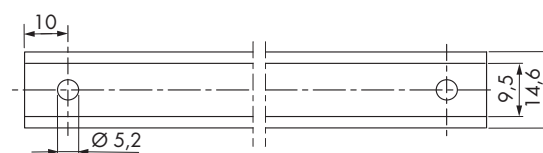
Use of secondary sash locking sides (see page 5)

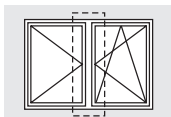
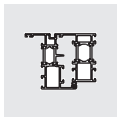


Use of secondary sash locking sides

K: with secondary sash shoot bolt
A.1/A.2: with secondary sash gear

Dimensions of operating rods:





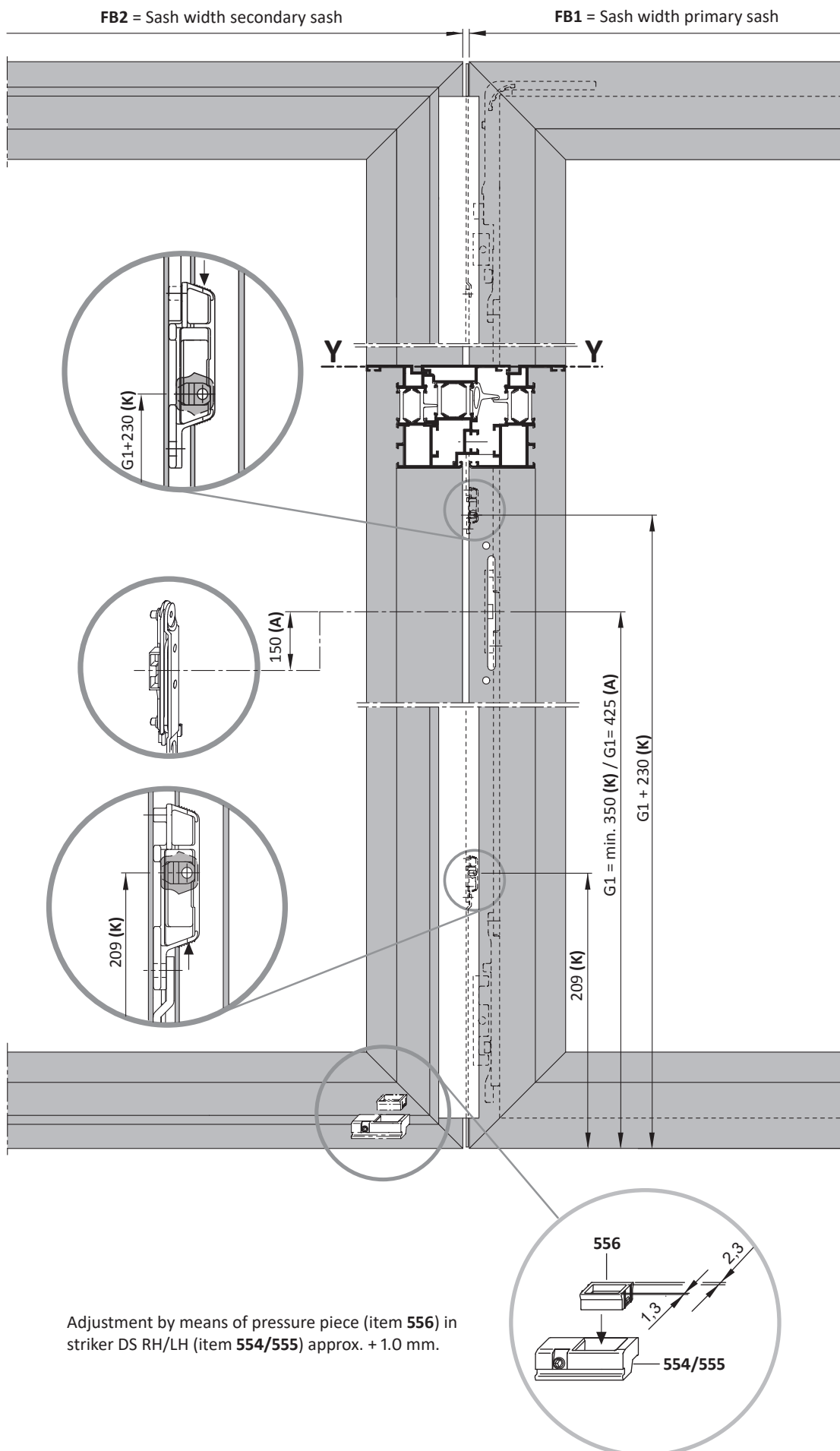
Sash dimensions, adjustments

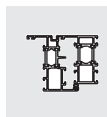
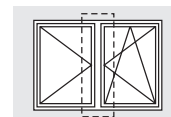
2-sash square turn/turn and tilt
Locking sides ALU for FBS-EUL

ALU VS

A0006/A0026

5





Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)!
Specifications from the profile manufacturers or system owners for windows and patio doors!



The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

ASSEMBLY INSTRUCTIONS

SIEGENIA
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ALU

axxent PLUS

Assembly instructions:
ALU axxent PLUS-D/DS

Window systems
Door systems
Comfort systems

H45.ALUS001EN-01

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ALU maintenance instructions

see Document Nr.: H49.ALUS001EN

ALU service instructions

see Document Nr.: H47.ALUS001EN

MAINTENANCE INSTRUCTIONS

SIEGENIA
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ALU

Maintenance instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems

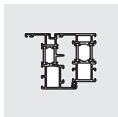
SERVICE INSTRUCTIONS

SIEGENIA
brings spaces to life

ALU

Service instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems



6 - secondary sash locking sides

FBS-G (1-sash)
VS ALU-DS/A -DS/K (2-sash)

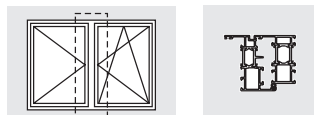
ALU

VS ALU-DS/A -DS/K (A0006/A0026)

2-sash square VS ALU-DS/A_VS ALU-DS/K (A0006/A0026) H48.5200LS010EN 6 - 3

ALU secondary sash locking sides

Assembly instructions A0006/A0026 FBS-G



2-sash square turn / turn and tilt

Aluminium eurogroove 15/20

Chamber dimension 21

For anti-mishandling device (primary sash) at handle position (FBS-G)

version A0006/A0026 with secondary sash gear: DS/A

Version A0006/A0026 with secondary sash shoot bolt: DS/K

For vertical tilt point (KPS)/horizontal tilt point (KPW)

6

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1250
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1250
Sash height	(mm)	830/810 ²⁾	2400
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS	The size ranges and diagrams for the relevant fitting programmes are applicable!		

1) hardware-dependent

2) for version DS/A (secondary sash gear)

The following documentation is required:

- profile information ALU20
- assembly instructions ALU 2200-DK/D*
- assembly instructions ALU 5100-DK FBS-G
- assembly instructions ALU 5100-D*
- assembly instructions ALU 5200-DK FBS-G BD 3.5
- assembly instructions ALU 5200-D BD 3.5*
- assembly instructions ALU 5200-DK FBS-G BD 5
- assembly instructions ALU 5200-D BD 5*
- assembly instructions ALU axxent PLUS-DK FBS-G
- assembly instructions ALU axxent PLUS-D*

- Document Nr. H45.ALUS001EN
- Document Nr. H48.2200LS003EN
- Document Nr. H48.5100LS002EN
- Document Nr. H48.5100LS005EN
- Document Nr. H48.5200LS002EN
- Document Nr. H48.5200LS005EN
- Document Nr. H48.5200LS013EN
- Document Nr. H48.5200LS010EN
- Document Nr. H48.axntLS008EN
- Document Nr. H48.axntLS018EN

see page 6 for further information 6.

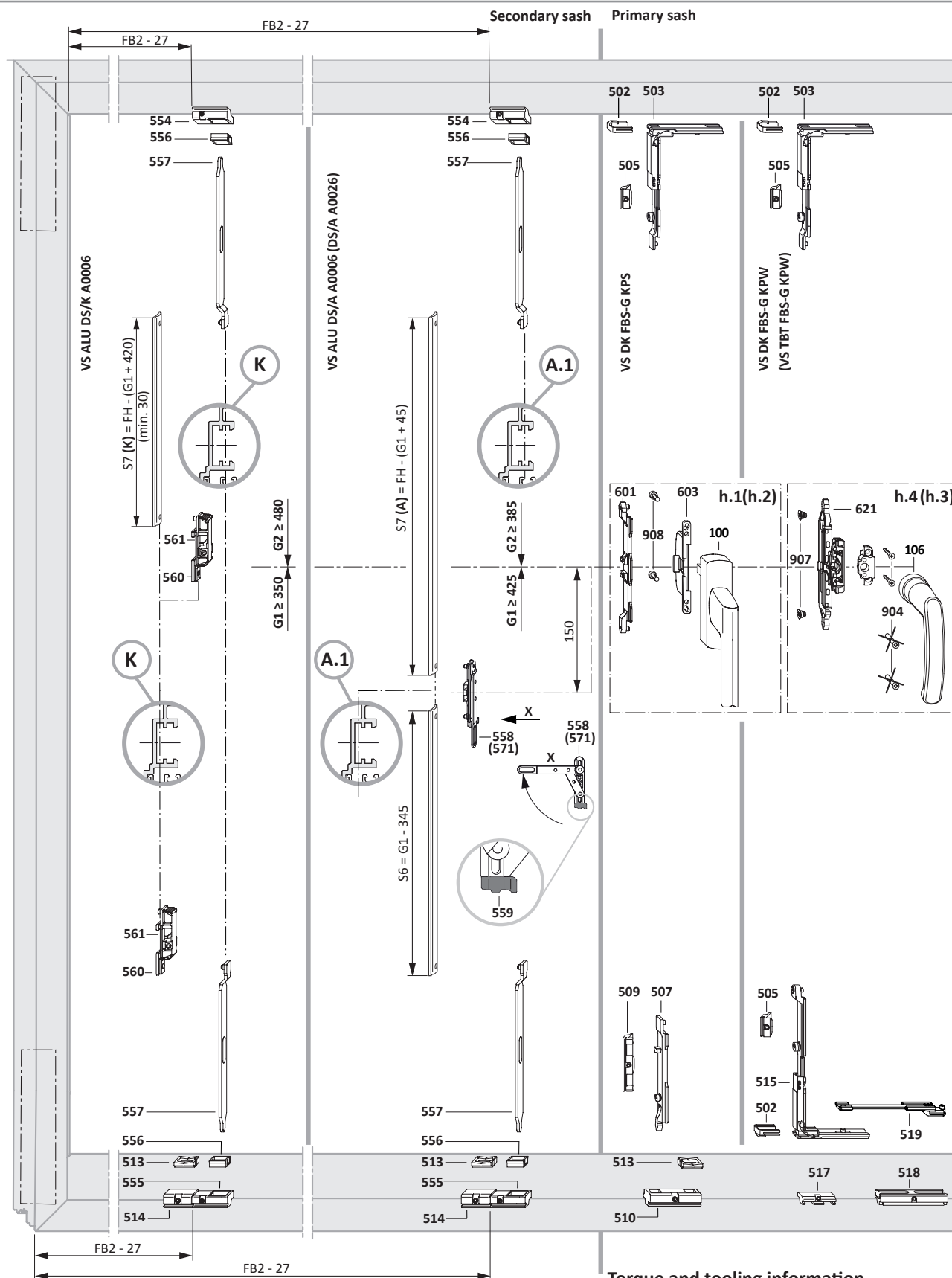
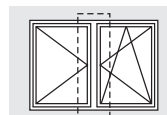
* use with hinge side „D“ only in secondary sash!

Please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



See SIEGENIA download portal for all documentation!

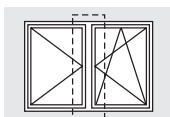
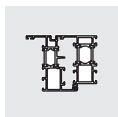


Figures show version A006 (A.1).
Illustration for A0026 (A.2) accordingly.

For further information and explanations see pages 3 - 5!

Torque and tooling information

Items	Nm (± 0.25)	
505, 509, 510, 514, 517, 518, 554, 555, 560	1.5	⬡ 2.5
908	2.5	⬡ 4
904, 907	2.7	⚙ P22



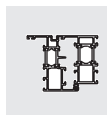
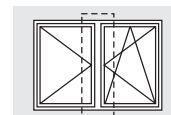
Hardware list

2-sash square turn/turn and tilt Locking sides ALU for FBS-G

ALU VS
A0006/A0026

	Item	Pieces	Material description	Material number	VE	Material number	VE
h.1	100	1	ALU Si-line handle	See handle overview in the SIEGENIA download portal			
	h.2 no illus.		ALU Globe handle				
	h.3 no illus.		TITAN handle				
	h.4 106		ALU Globe RR handle				
Primary sash		0...1	VS ALU-DK FBS-G KPS (for FBS at handle position)	MMVS0250-10001_	1	MMVS0250-10003_	20
	no illus.	0...1	Locking bolt DK	omitted for ALU axsent PLUS			
	502	1	Clamping piece EUL				
	503	1	VSO corner drive				
	505	1	Striker				
	507	1	Tilt lock 10 mm				
	509	1	E striker cam 10				
	510	1	Tilt locking part				
	513	1	Run-up block				
		0...1	VS ALU-DK FBS-G KPW (for FBS on handle position)	MMVS0470-10001_	1	MMVS0470-10003_	20
	no illus.	0...1	Locking bolt DK	omitted for ALU axsent PLUS			
	502	2	Clamping piece EUL				
	503	1	VSO corner drive				
	505	2	Striker				
	515	1	Corner drive VSU				
	517	1	Run-up block				
	518	1	Tilt locking part				
	519	1	Tilt lock DK				
		0...1	VS ALU-TBT FBS-G KPW (for FBS on handle position)	MMVS0480-10001_	1	MMVS0480-10003_	20
	no illus.	0...1	TBT locking bolt	omitted for ALU axsent PLUS			
	502	2	Clamping piece EUL				
	503	1	VSO corner drive				
	505	2	Striker				
	506	1	Striker EUL				
	515	1	Corner drive VSU				
	516	1	Tilt lock				
	517	1	Run-up block				
	518	1	Tilt locking part				
K		0...1	VS ALU-DS/K A0006 ¹⁾	860830	1	249338	20
	513	1	Run-up block RAL 7001				
	514	1	Run up block TBT RAL 9005				
	554	1	Striker DS RH				
	555	1	Striker DS LH				
	556	2	Pressure piece				
	557	2	ALU shoot bolt				
	560	2	Clamping piece				
A.1	561	2	Locking element RAL 9011	Installation also optionally on VSU (patio doors)			
		0...1	VS ALU-DS/A DN A0006	860823	1	249321	20
	513	1	Run-up block RAL 7001				
	514	1	Run up block TBT RAL 9005				
	554	1	Striker DS RH				
	555	1	Striker DS LH				
	556	2	Pressure piece				
	557	2	ALU shoot bolt				
	559	1	Stop RAL 9011				
	571	1	Secondary sash gear				

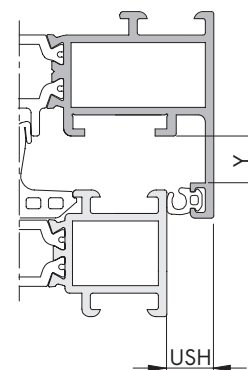
1) can also be used for version A0026 (A.2)



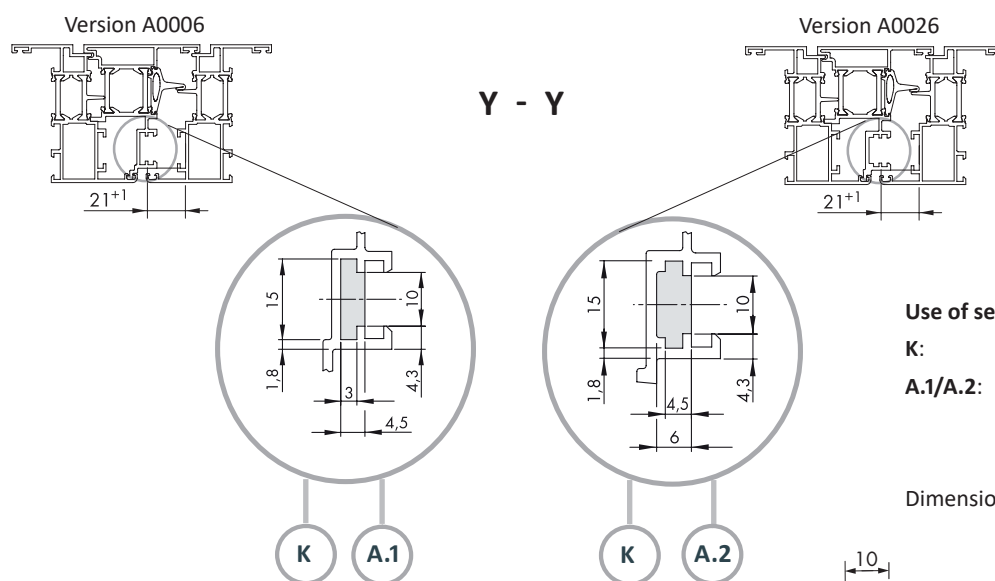
	Item	Pieces	Material description	Material number	VE	Material number	VE
A.2	0...1	1	VS ALU-DS/A DN A0026 FH ≥ 810	864425	1	252192	20
	513	1	Run-up block RAL 7001				
	514	1	Run up block TBT RAL 9005				
	554	1	Striker DS RH				
	555	1	Striker DS LH				
	556	2	Pressure piece				
	557	2	ALU shoot bolt				
	558	1	Secondary sash gear A0026				
	559	1	Stop RAL 9011				
h.1	0...1	1	Coupling set ALU FBS Y > 9 ≤ 10mm Only use in combination with h.1/h.2 (see page 4 for note on rebate height (USH) and for dimension Y)	MMKL0030-10001_	1	MMKL0030-10003_	20
			(with FBS on gear) Y ≥ 10mm	MMKL0010-10001_	1	MMKL0010-10003_	20
h.2	601	1	ALU coupling bracket				
	603	1	Anti-mishandling device				
	908	2	Cheese head screw M5 x 12				
h.3	0...1	1	Gear set ALU FBS Only use in combination with h.3/h.4 (see SIEGENIA download portal)	MMGI0080-10001_	1	MMGI0080-10003_	20
	621	1	ESG M6 FBS				
h.4	904	2	Countersunk screw M5 x 35				
	907	2	Coupling screw M6				

Design versions for coupling set (item 601-603-908) (h.1/h.2)

USH (mm)	Y (mm)	Material nr.
7 - 10	> 9 ≤ 10	MMKL0030-10001_
	> 10	MMKL0010-10001_



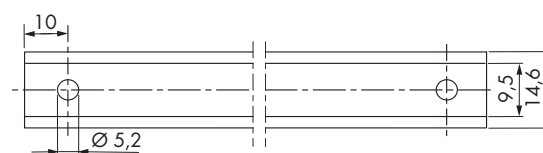
Use of secondary sash locking sides (see page 5)

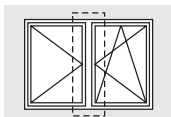
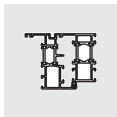


Use of secondary sash locking sides

- K:** with secondary sash shoot bolt
A.1/A.2: with secondary sash gear

Dimensions of operating rods:



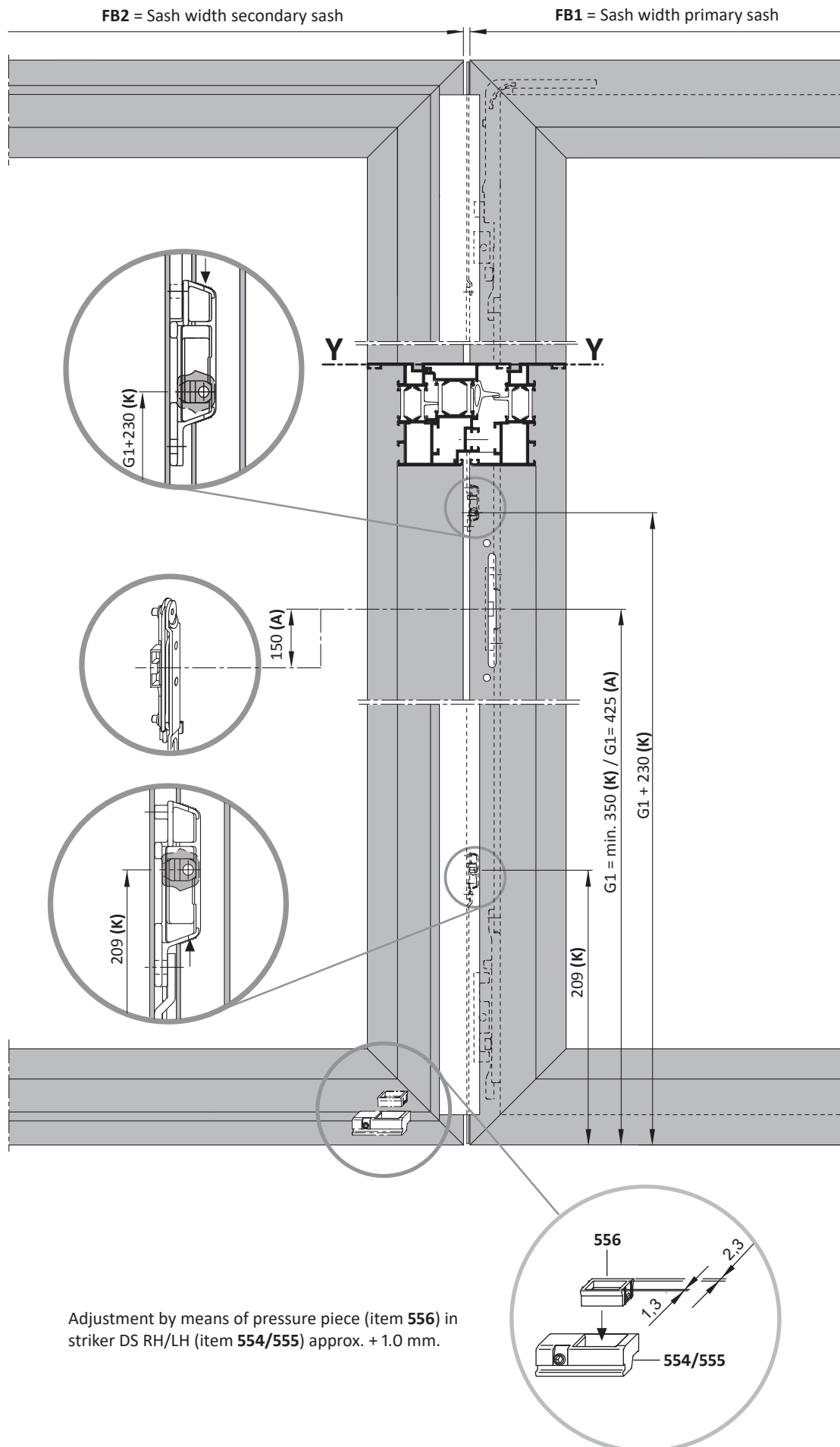


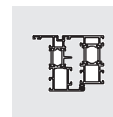
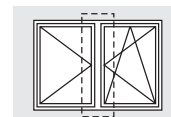
Sash dimensions, adjustments

2-sash square turn/turn and tilt
locking sides ALU for FBS-G

ALU VS

A0006/A0026





Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents!)
Specifications from the profile manufacturers or system owners for windows and patio doors!

The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

ASSEMBLY INSTRUCTIONS

SIEGENIA
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ALU

axxent PLUS

Assembly instructions:
ALU axxent PLUS-D/DS

Window systems
Door systems
Comfort systems

ALU maintenance instructions

see Document Nr.: H49.ALUS001EN

ALU service instructions

see Document Nr.: H47.ALUS001EN

MAINTENANCE INSTRUCTIONS

SIEGENIA
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ALU

Maintenance instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems

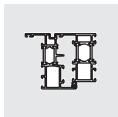
SERVICE INSTRUCTIONS

SIEGENIA
brings spaces to life

ALU

Service instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems



7 - secondary sash locking sides

ALU

VS A LU-DS (2-sash)

VS ALU-DS

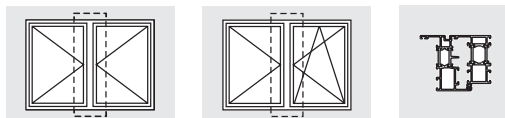
2-sash square VS ALU-DS

H48.5200LS004EN

7 - 3

ALU secondary sash locking sides

Assembly instructions ALU DS



2-sash square turn / turn-only

2-sash square turn / turn and tilt

Aluminium eurogroove 15/20

Chamber dimension 21

For vertical tilt point (KPS)

7

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1250
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1250
Sash height	(mm)	680	2400
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS, ALU D300	The size ranges and diagrams for the relevant fitting programmes are applicable!		

1) hardware-dependent

observe side ratio sash width (FB) to sash height (FH) ≤ 1.5 or ≤ 1.2 (only ALU D300)!

The following documentation is required:

- profile information ALU20
- assembly instructions ALU 2200-DK/D
- assembly instructions ALU 5100-D
- assembly instructions ALU 5200-D BD 3,5
- assembly instructions ALU 5200-D BD 5
- assembly instructions ALU axxent PLUS-D
- assembly instructions ALU D300

See page 5 for further information.

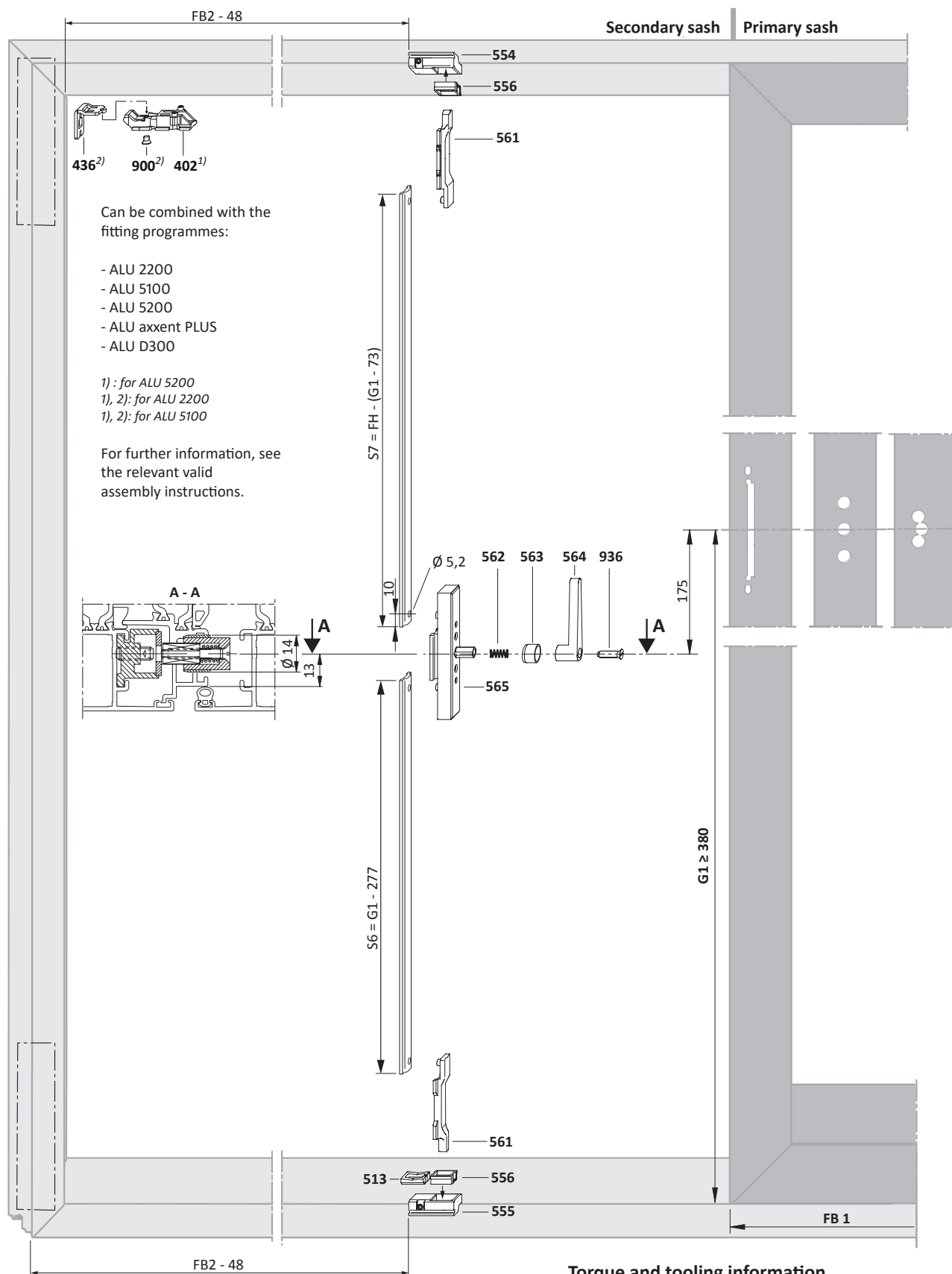
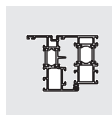
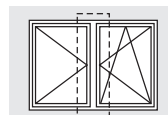
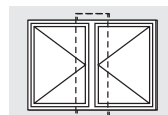
- Document Nr. H45.ALUS001EN
- Document Nr. H48.2200LS003EN
- Document Nr. H48.5100LS005EN
- Document Nr. H48.5200LS005EN
- Document Nr. H48.5200LS010EN
- Document Nr. H48.axntLS018EN
- Document Nr. H48.300LS001EN

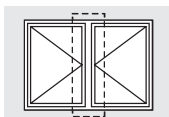
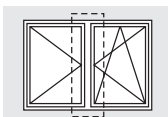
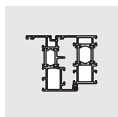
please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



See SIEGENIA download portal for all documentation!





Hardware list

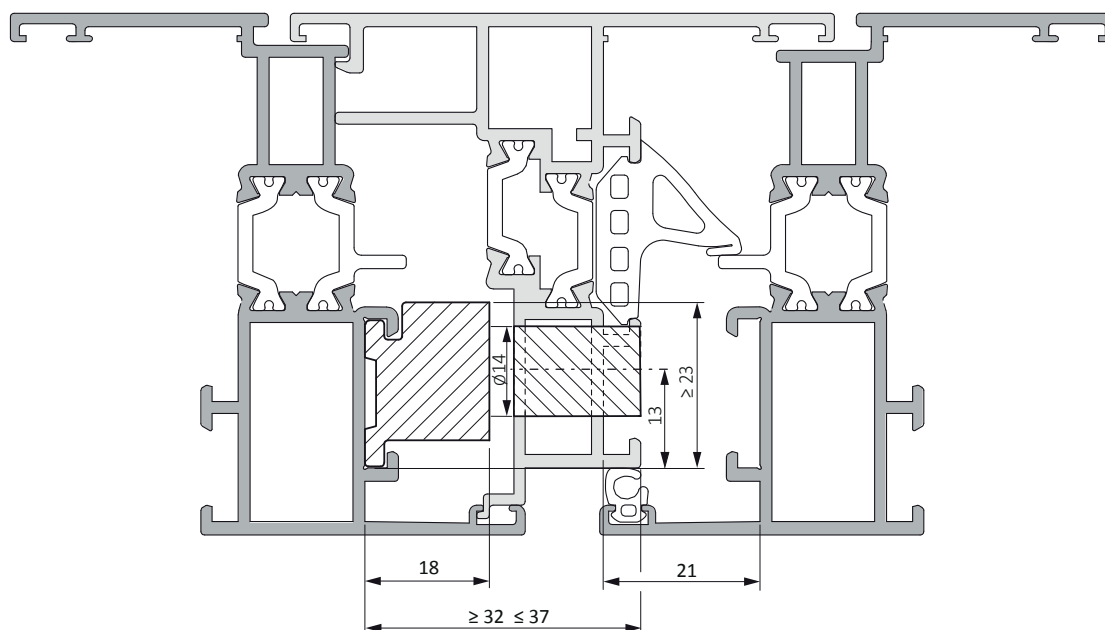
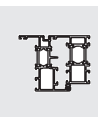
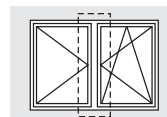
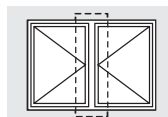
2-sash square turn/turn only; turn and tilt
Locking sides ALU

ALU VS

DS

Item	Pieces	Material description	Material number	VE	Material number	VE
Without positioning		Hinge side ALU 2200				
		Hinge side ALU 5100-D				
		Hinge side ALU 5200-D				
		Hinge side ALU axxent PLUS D LH/RH				
		Hinge side ALU D300				
	0...1	VS ALU DS A0109 <i>only use with BS ALU axxent PLUS and ALU 300D</i>	879368	1	266885	20
513	1	Run-up block				
554	1	Striker DS RH				
555	1	Striker DS LH				
556	2	Pressure piece				
561	2	Deadbolt				
562	1	Pressure spring				
563	1	PVC bushing				
564	1	Handle				
565	1	Secondary sash gear				
936	1	Countersunk screw M4 x 16				
	0...1	VS ALU DS <i>only use with BS ALU 2200, ALU 5100 and ALU 5200</i>	857038	1	246962	20
402	1	Stay ALU 2200/5100-D/5200-D				
513	1	Run-up block				
554	1	Striker DS RH				
555	1	Striker DS LH				
556	2	Pressure piece				
561	2	Deadbolt				
562	1	Pressure spring				
563	1	PVC bushing				
564	1	Handle				
565	1	Secondary sash gear				
936	1	Countersunk screw M4 x 16				
	0...1	Accessories for turn only sash stay ALU 2200/5100 <i>only use additionally for ALU 2200 and ALU 5100¹⁾</i>	MZBS0040-00001_	1	MZBS0040-00003_	20
436	1	Adapter ALU 2200/5100-D				
900	1	Countersunk screw M5 x 7				

1) For further information, see the relevant valid assembly instructions.

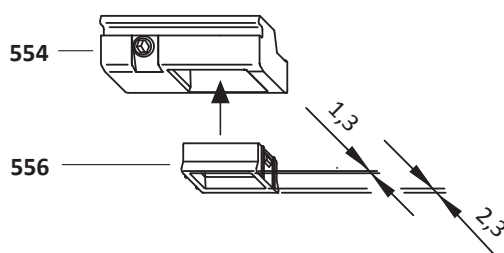


Required space item 565:
18 x 105 mm

Required space item 563+564:
 $\varnothing 14$ mm

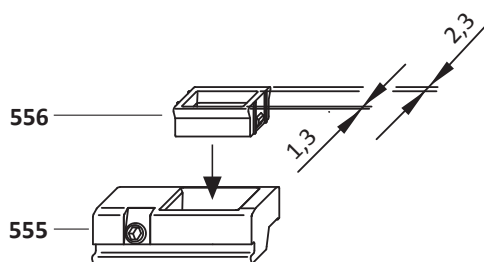
Adjustable compression of the pressure pieces (556) + 1 mm

VSO

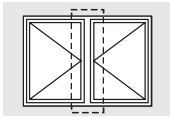
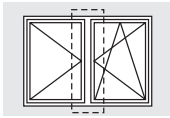
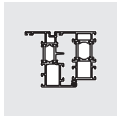


Pressure increase for secondary sash:

adjustment by means of pressure piece (item 556) in
striker DS RH/LH (item 554/555) approx. + 1.0 mm.



VSU



Additional information

2-sash square turn/turn only; turn and tilt
Locking sides ALU

ALU VS

DS

Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VdW directive as well as the further applicable documents)!
Specifications from the profile manufacturers or system owners for windows and patio doors!

! The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

MONTAGEANLEITUNG

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ALU

axxent PLUS

Montageanleitung:
ALU axxent PLUS-D/DS

Fenstersysteme
Türsysteme
Komfortsysteme

H45.ALUS001EN-01

SIEGENIA

07.2020

1/6

ALU maintenance instructions

see Document Nr.: H49.ALUS001EN

ALU service instructions

see Document Nr.: H47.ALUS001EN

MAINTENANCE INSTRUCTIONS

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ALU

Maintenance instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems

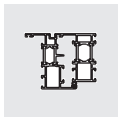
SERVICE INSTRUCTIONS

SIEGENIA
brings spaces to life

ALU

Service instructions:
ALU axxent PLUS, ALU 2200, ALU 5100, ALU 5200, ALU-DK/TBT200, ALU-D300,
ALU RB/SF

Window systems
Door systems
Comfort systems



8 - Secondary sash locking side

ALU

VS ALU-DG (2-sash)

VS ALU-DG

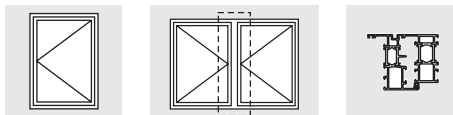
2-sash square VS ALU-DG

H48.5200LS005EN

8 - 3

ALU secondary sash locking side

Assembly instructions DG



1-sash square turn

2-sash square turn / turn secondary sash

Aluminium eurogroove 15/20

Chamber dimension 21

Size range

		min.	max.
Sash width primary sash (FB 1)	(mm)	... ¹⁾	1000 ²⁾
Sash width secondary sash (FB 2)	(mm)	... ¹⁾	1000 ²⁾
Sash height	(mm)	500	2000
For fitting programmes: ALU 2200, ALU 5100, ALU 5200, ALU axxent PLUS	The size ranges and diagrams for the relevant fitting programmes are applicable!		
Can be combined with locking sides: VS ALU-DG, VS ALU-DS, VS ALU-DS/A, VS ALU-DS/K			

1) Dependent on system

2) Observe the aspect ratio of the sash width (FB) to the sash height (FH) of ≤ 1.5 !

The following documentation is required:

-profile information ALU20
-assembly instructions ALU 2200-DK/D
-assembly instructions ALU 5100-D
-assembly instructions ALU 5200-D BD 3,5
-assembly instructions ALU 5200-D BD 5
-assembly instructions ALU axxent PLUS-D
-assembly instructions VS ALU-DS
-assembly instructions VS ALU A0006 DS/K
See page 6 for further information.

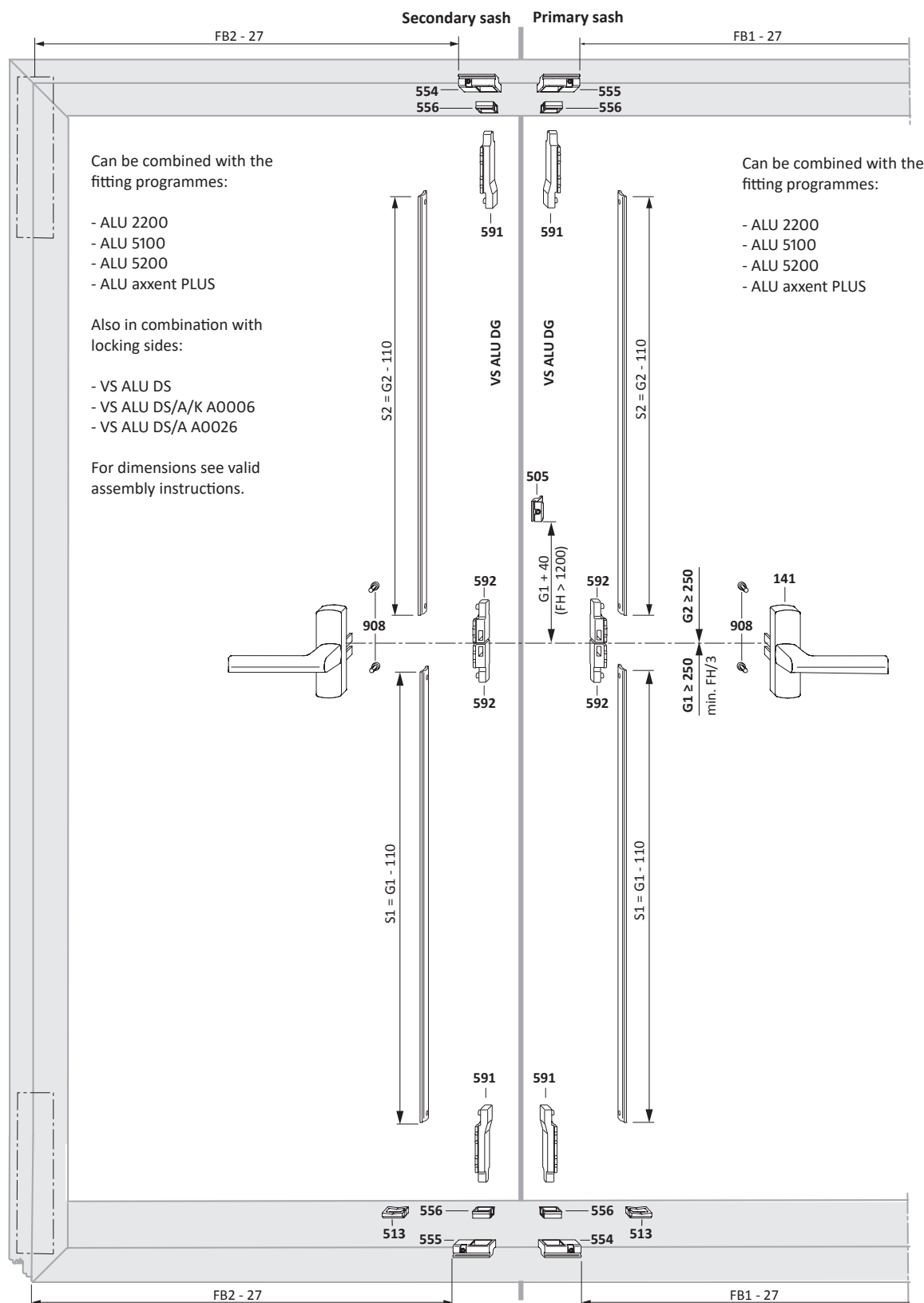
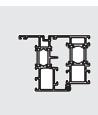
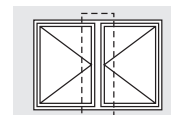
Document Nr. H45.ALUS001EN
Document Nr. H48.2200LS003EN
Document Nr. H48.5100LS005EN
Document Nr. H48.5200LS005EN
Document Nr. H48.5200LS010EN
Document Nr. H48.axxentLS018EN
Document Nr. H48.VSL004EN
Document Nr. H48.VSL009EN

Please observe:

guidelines/notes on the product and on liability (VHBH directive as well as the further applicable documents)! Specifications from the profile manufacturers or system owners for windows and patio doors!



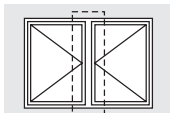
See SIEGENIA download portal for all documentation!



Torque and tooling information

Items	Nm (± 0.25)	
554, 555	1.5	⬡ 2.5
908	2.5	⬡ 4

For further information and explanations see pages 3.



Hardware list, installation information

2-sash square turn / turn secondary sash
ALU locking side

ALU VS

DG

	Item	Pieces	Material description	Material number	VE	Material number	VE
	141	1	Handle Si-line ALU DG	See handle overview in SIEGENIA download portal			
Primary sash		1	VS ALU-DG	826133	1	219706	20
	513	1	Run-up block RAL7001				
	554	1	Striker DS RH				
	555	1	Striker DS LH				
	556	2	Pressure piece				
	591	2	Deadbolt				
	592	2	Catch ALU				
	505	0...1	Striker FH > 1200 mm	859322	1	-	-
Secondary sash		0...1	VS ALU-DG	826133	1	219706	20
	513	1	Run-up block RAL7001				
	554	1	Striker DS RH				
	555	1	Striker DS LH				
	556	2	Pressure piece				
	591	2	Deadbolt				
	592	2	Catch ALU				
		0...1	VS ALU-DS	See relevant assembly instructions		See relevant assembly instructions	
			VS ALU-DS/A DN A0004				
			VS ALU-DS/K A0006				
			VS ALU-DS/A DN A0006				
			VS ALU-DS/A DN A0026				

Assembly instructions

Preparation

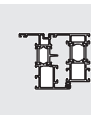
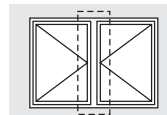
- A** Make punch out for Si-line ALU-DG handle (**item 141**).
- B** Open the operating rod guide groove.
- C** Prepare operating rods S1 - S2 according to specifications on page 2.

Sash

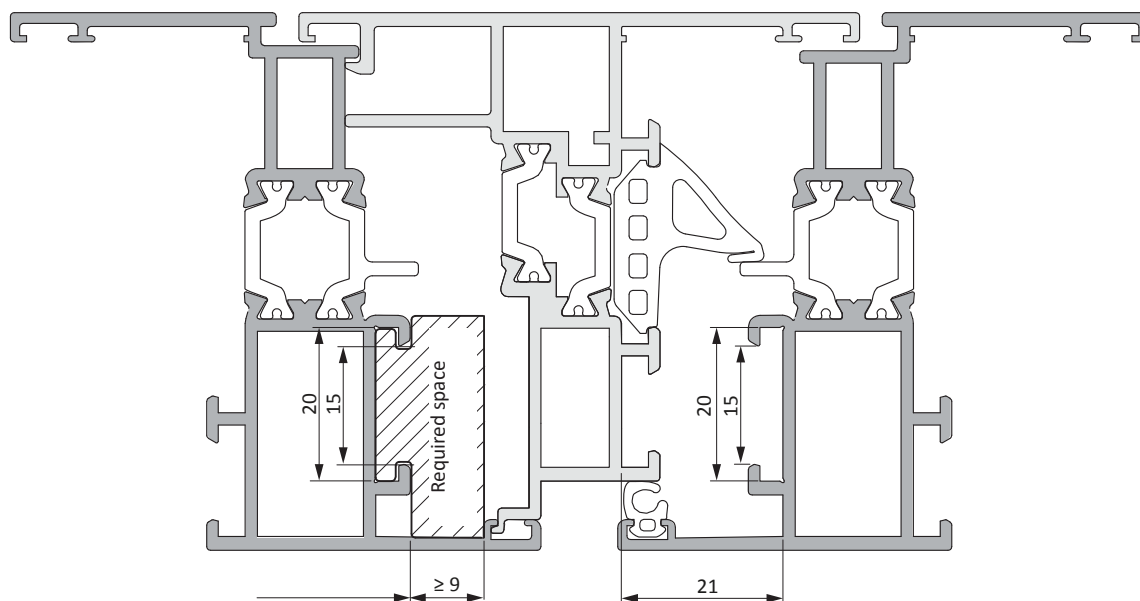
- D** Insert operating rods S1 and S2 with deadbolt (**item 591**) and catch (**item 592**) at the VSU and VSO.
- E** Screw on handle Si-line ALU-DG (**item 141**) using cheese head screws M5 x 12 (**item 908**) (torque 2.5 ± 0.25 Nm, SW 4).
- F** Mount run-up block (**Pos.513**).

Frame

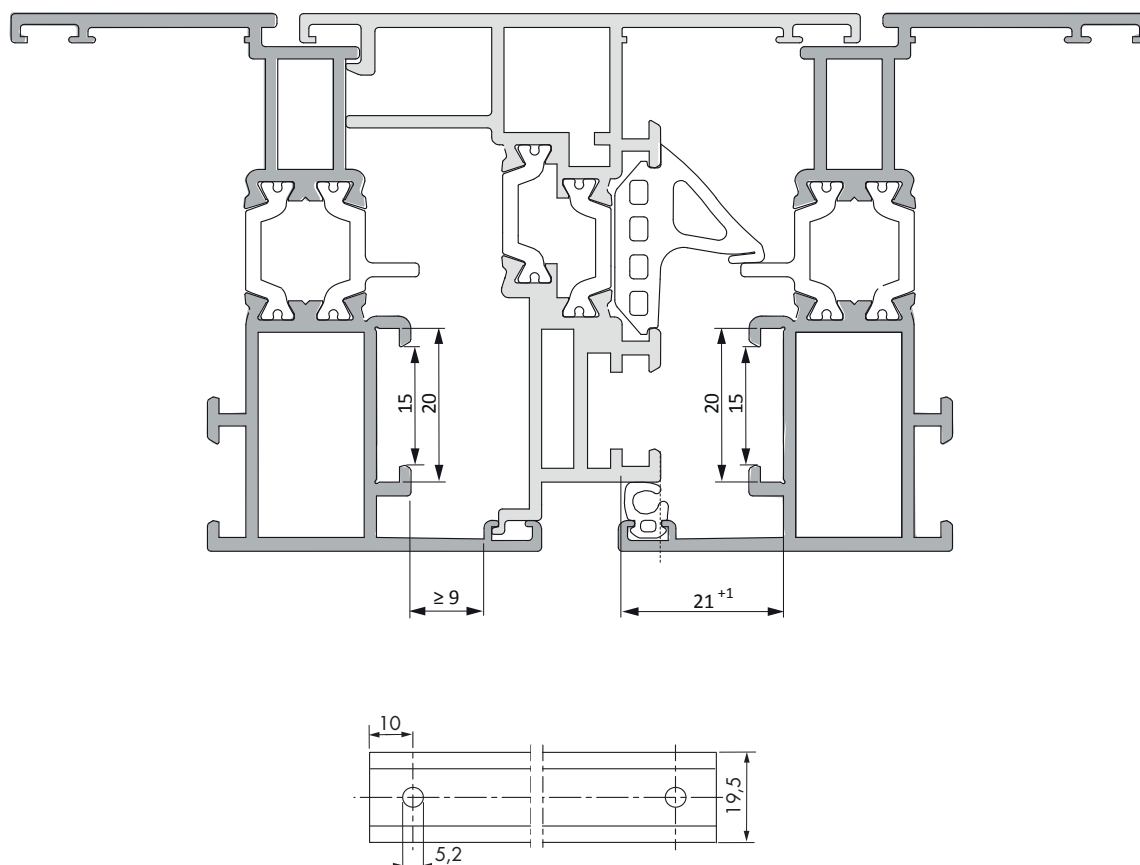
- G** Position striker DS RH/LH (**item 554/555**) according to information on page 2 and clamp firmly with the grub screws (torque 1.5 ± 0.25 Nm, SW 2.5).
- H** Insert pressure pieces (**item 556**) according to information on page 2.

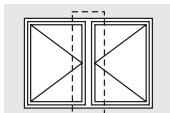


Secondary sash profile for second handle application



Secondary sash profile for shootbolt programme





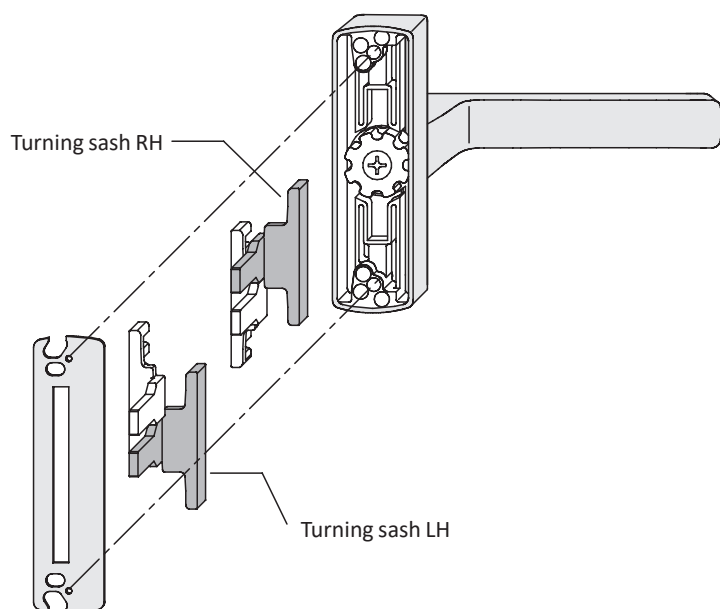
Installation information, adjustments

2-sash square turn / turn secondary sash
ALU locking side

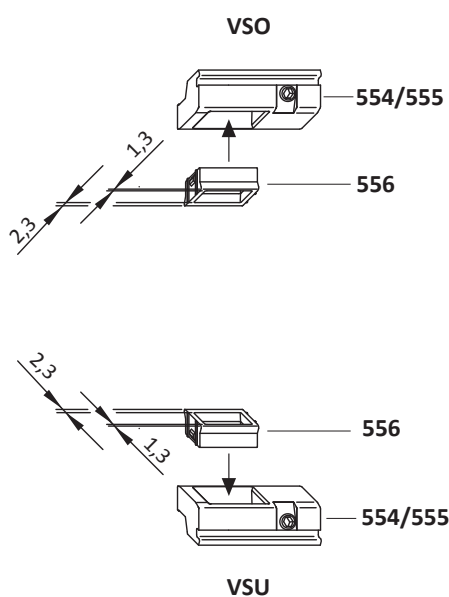
ALU VS

DG

Installation information handle Si-line ALU DG

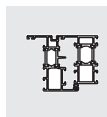
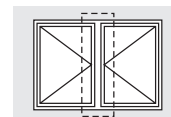


VSU/VSO adjustments



Pressure increase for secondary sash:

adjustment by means of pressure piece (item 556) in
striker DS RH/LH (item 554/555) approx. +1.0 mm.



Profile information ALU20

see Document Nr.: H45.ALUS001EN

ALU axxent PLUS-D/DS assembly instructions

see Document Nr.: H39.axntLS002EN

ALU accessories

Profile information ALU20



Aluminium eurogroove 15/20

Chamber dimension 21

Sash dimensions

Operating rod dimensions

Frame groove size A0004/A0006/A0022

Pivots

Please observe:

Guidelines/notes on the product and on liability (VIBH directive as well as the further applicable documents)!
Specifications from the profile manufacturers or system owners for windows and patio doors!

! The defined dimensions are final dimensions after the surface treatment of the profiles e.g. painted, powder coated etc.!

H45.ALUS001EN-01

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Türsysteme
Komfortsysteme

ALU maintenance instructions

see Document Nr.: H49.ALUS001EN

ALU service instructions

see Document Nr.: H47.ALUS001EN

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