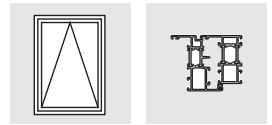


ALU 4200-K

Clampable tilt sash hardware for aluminium windows



Further details and specifications/information regarding the product and liability (guidelines: VHBH, TDBK and VHBE) can be found in the aluminium planning manual (H4006.3042EN) and **must** be observed.

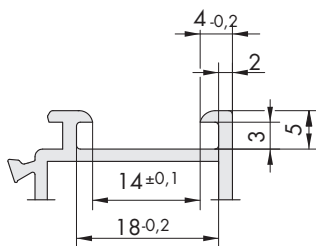
All dimensions given are final dimensions after the surface of the sections has been treated (painted, power coated etc.).

Correct use

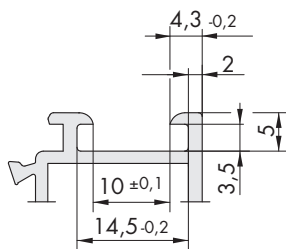
Profile selection/alignment

Frame designs

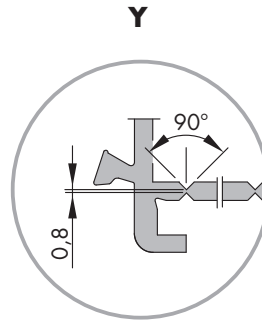
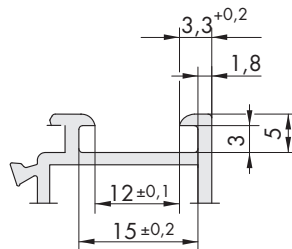
A0004



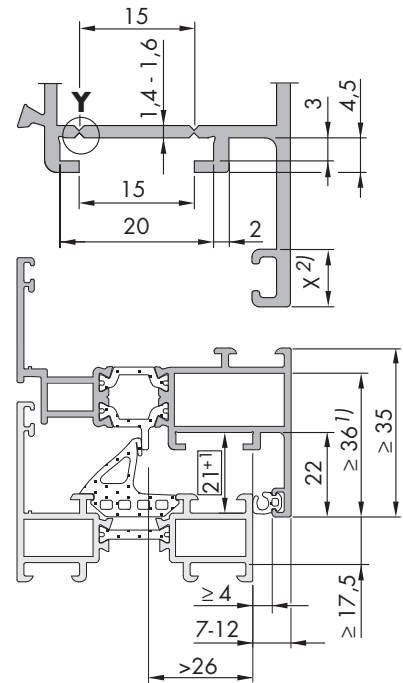
A0006



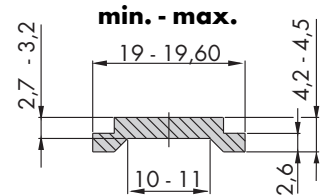
A0022



Sash and frame dimensions



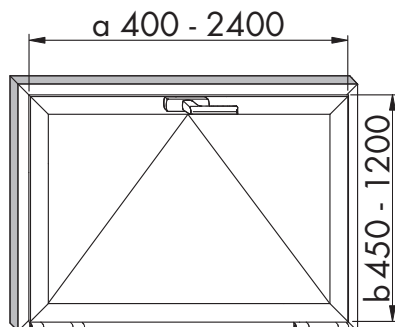
Operating rod dimensions



- 1) For gear set M6.
- 2) See table on page 3.

All dimensions in mm

| | | 1 Tilt-only stay | 2 Tilt-only stays |
|-------------|-----|-----------------------|------------------------|
| Sash width | (a) | min. 400 - max. 1,020 | min. 1021 - max. 2,400 |
| Sash height | (b) | min. 450 - max. 1,200 | min. 450 - max. 1,200 |
| Sash weight | (c) | max. 30 kg | max. 50 kg |



Contents

| | |
|--|---------|
| Size ranges..... | Page 1 |
| Hardware layout..... | Page 2 |
| Hardware list..... | Page 3 |
| Jigs, abbreviations..... | Page 4 |
| Assembly instructions..... | Page 5 |
| Assembly instructions for tilt only security stay..... | Page 6 |
| Installing the jigs LM EL/EB LM-FP..... | Page 7 |
| Sash dimensions..... | Page 8 |
| Frame dimensions..... | Page 9 |
| Important information..... | Page 10 |

Assembly Instructions

H48.4200LS004en

Technical specifications and colours are subject to change

H48.4200LS004en/1

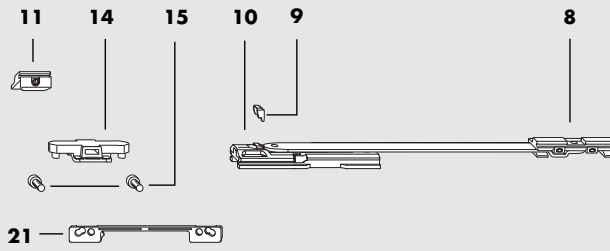
ALU 4200-K Hardware layout

a from 400 mm to 750 mm

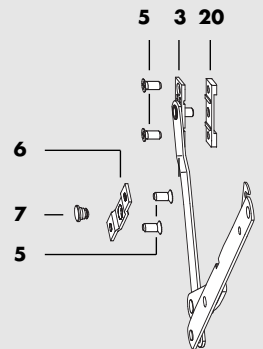
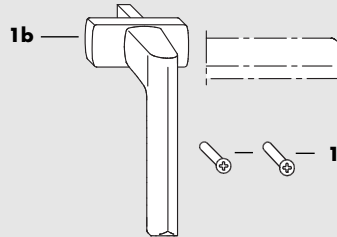
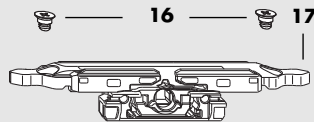
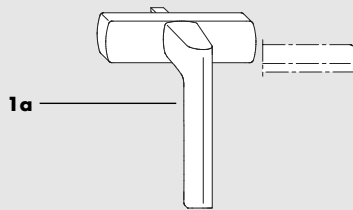
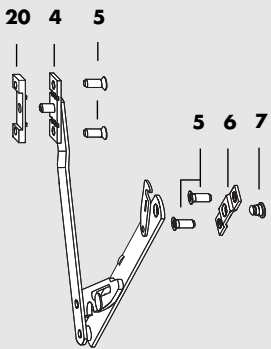
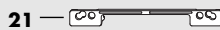
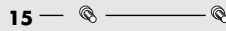
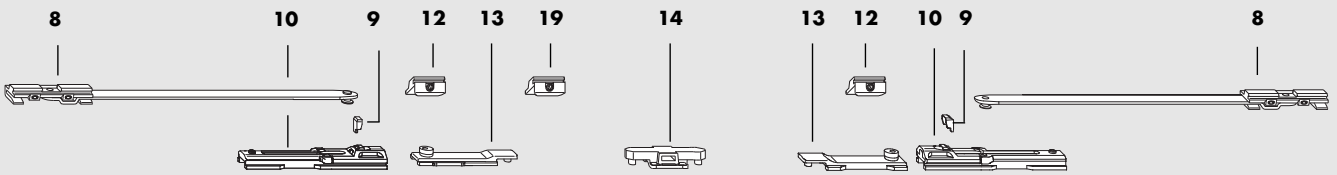


Commercially available sky-light snapper

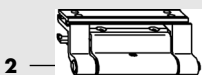
a from 751 mm to 1,020 mm



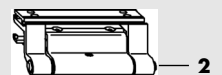
a from 840 mm (1b) and 1021 mm (1a) to 2400 mm



- | | |
|------------------------------------|-------------------------------------|
| 1a Handle LM | 12 Striker |
| 1b Window handle | 13 Slider |
| 2 Tilt only hinge LM 4200 | 14 Coupling bracket |
| 3 Stay right | 15 Cheese head screw M5 x 12 |
| 4 Stay left | 16 Coupling screw M6 |
| 5 Countersunk screw M5 x 13 | 17 ESG LM M6 |
| 6 Stop plate | 18 Countersunk screw M5 x 35 |
| 7 Bolt | 19 Striker |
| 8 Tilt only stay LM | 20 Packer A0004 |
| 9 Barrier | 21 Handle support LM |
| 10 Stop | |
| 11 Striker | |





2



2

ALU 4200-K Hardware list

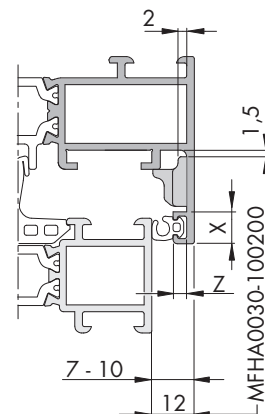
| Item | Quantity | Description |  | Material no. |  | Material no. | |
|-------|---------------------|--|---|---|---|-----------------|-----------------|
| 1a | 0...1 | Handle LM <i>Use for a 751 and up</i> | | See handle overview LM Drawing no.: LMen1337 in aluminium planning manual | | | |
| | 1b | Window handle (□ 7 mm x 25, cam Ø 10 mm) <i>Use for a 840 and up</i> | | | | | |
| 2 | 2...3 ¹⁾ | Tilt only hinge LM 4200 | Silver | 1 | MMKB0020-525010 | 20 | MMKB0020-525030 |
| | | | Brown | 1 | MMKB0020-533010 | 20 | MMKB0020-533030 |
| | | | White RAL 9010 | 1 | MMKB0020-503010 | 20 | MMKB0020-503030 |
| | | | White RAL 9016 | 1 | MMKB0020-504010 | 20 | MMKB0020-504030 |
| | | | Black RAL 9005 | 1 | MMKB0020-523010 | 20 | MMKB0020-523030 |
| | | | EV1 | 1 | MMKB0020-524010 | 20 | MMKB0020-524030 |
| | | | ESLG | 1 | MMKB0020-800010 | 20 | MMKB0020-800030 |
| | | | Mill finish | 1 | MMKB0020-500010 | 20 | MMKB0020-500030 |
| 3-7 | 0...1 ²⁾ | Tilt only security stay size 1 <i>From b 450 mm to 600 mm</i> | 1 | AMFP0010-100010 | 5 | AMFP0010-100120 | |
| | 0...1 ²⁾ | Tilt only security stay size 2 <i>From b 601 mm to 1,200 mm</i> | 1 | AMFP0020-100010 | 5 | AMFP0020-100120 | |
| 8-10 | 1...2 | Tilt only stay LM <i>Use tilt only stays for a 1,021 mm and up</i> | 1 | 848876 | 50 | 239155 | |
| 11 | 1 | Striker <i>From a 751 mm to 1,020 mm</i> | 1 | 859322 | 20 | 265413 | |
| 12-13 | 1 | V5 LM-K var. set <i>a 1,021 mm and up (1a or 1b)</i> | 1 | MMVS0330-100010 | 20 | MMVS0330-100030 | |
| 14-15 | 0...1 | Coupling set LM A0156 <i>For handle LM (1a)</i> | 1 | MMKL0060-100010 | 20 | MMKL0060-100030 | |
| 16-18 | 0...1 | Gear set M6 Trial/RR <i>For window handle (1b) □ 7 x 25 /Ø 10 mm cam</i> | 1 | MMGI0090-100010 | 20 | MMGI0090-100030 | |
| 19 | 0...1 | Striker <i>1,250 mm and up additionally as MV</i> | 1 | 859322 | 20 | 265413 | |
| 20 | 0...2 | Packer <i>For A0004</i> | 1 | 889220 | 200 | 303863 | |
| 21 | 0...1 | Handle support LM <i>For handle LM (1a)</i> | - | - | 200 | See table | |

Generally required

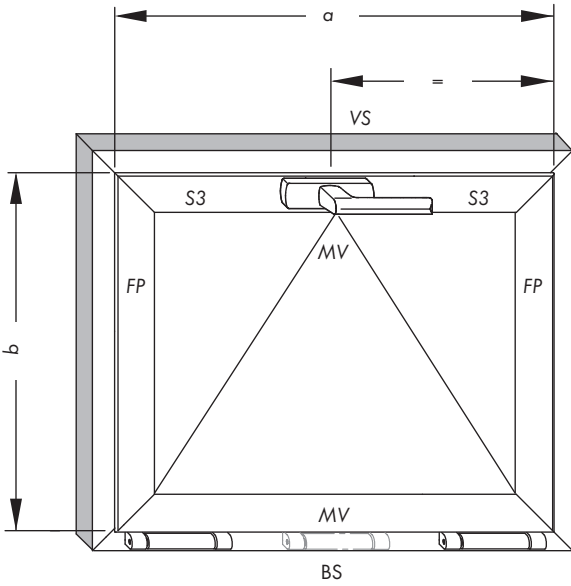
1) for FB 1201 mm and up, an additional tilt only hinge as MV is recommended
 2) Contents of packing unit: 1 right and 1 left tilt only security stay

Design variations for handle support (21)

| USH | Z | X < 7 mm | X 7.1 - 8.5 mm |
|-----------|------------|-----------------|-------------------|
| 7 - 10 mm | < 2 mm | MFHA0010-100200 | MFHA0010-100200 |
| 7 - 10 mm | 2.1 - 3 mm | MFHA0010-100200 | MFHA0020-100200 |
| 7 - 10 mm | > 3 mm | MFHA0010-100200 | - |
| 12 mm | - | MFHA0030-100200 | - |



ALU 4200-K Abbreviations



Abbreviations

The following abbreviations are used in these assembly instructions:

| | |
|------|--------------------------------|
| a | Sash width |
| b | Sash height |
| BS | Hinge side |
| EV1 | Anodised |
| ESLG | Brushed stainless steel-lock |
| FP | Tilt only security stay |
| MV | Centre lock |
| Nm | Torque in Nm |
| VS | Locking side |
| USH | Rebate height |
| S3 | Operating rods, top horizontal |

ALU 4200-K Assembly instructions

- Preparation**
- A** For a (sash width) of 751 mm and up, make punch out for handle LM (1a), window handle (1b) (see page 8).
 - B** Open the operating rod guiding groove.
 - C** Remove the rebate seal in the area through which the hinges pass and rework the sash profiles according to the specifications on page 8.
 - D** For a 1021 mm and up, rework operating rods S3 according to specifications on page 8.

- Sash**
- a from 400 - 2,400 mm**
- A** Insert tilt only hinge LM 4200 (2) horizontally from below.
 - B** Position tilt only hinge LM 4200 (2) according to specifications on page 8 and screw on with countersunk screws M5 x 7 (torque 2.5 ± 0.25 Nm).
 - C** Position stop (10) according to dimensions on page 8 and lock it using punching screw (torque 2.5 ± 0.25 Nm).
- a from 400 - 750 mm**
- D** Fasten commercially available sky-light snapper (sash hardware).
- a from 751 - 1,020 mm**
- E** Insert coupling bracket (14) horizontally from above.
 - F** Attach handle LM (1a) using cheese head screws M5 x 12 (15) (torque 2.5 ± 0.25 Nm).
- For gear LM*
- a from 840 - 2,400 mm**
- E** Operating rods horizontally from above.
 - F** Insert ESG LM M6 (17) in provided opening (see page 8 Figure 3).
 - G** Attach ESG LM M6 (17) to operating rods using coupling screws M6 (16) (PZ 2, torque 2.75 ± 0.25 Nm).
 - H** Attach handle LM (1a) using cheese head screws M5 x 12 (15) (torque 2.5 ± 0.25 Nm).
- For gear LM*
- a from 1,021 - 2,400 mm**
- E** Insert slider (13) with operating rod S3, operating rod S3 and slider (13) horizontally from above.
 - F** Insert ESG LM M6 (17) in provided opening (see page 8 Figure 3).
 - G** Attach ESG LM M6 (17) to operating rods S3 using coupling screws M6 (16) (PZ 2, torque 2.75 ± 0.25 Nm).
 - H** Attach window handle (1b) using countersunk screw M5 x 35 (18) (PZ 2, torque 2.5 ± 0.25 Nm).

- Frame**
- a from 400 - 2,400 mm**
- A** Position tilt only stays LM (8) according to specification on page 9 and fix each in place with grub screws (torque 2.5 ± 0.25 Nm).
- a from 400 - 750 mm**
- B** Fasten commercially available sky-light snapper (frame hardware).
- a from 751 - 2,400 mm**
- C** Position strikers (11, 12, 19) according to specification on page 9 and fix each in place with grub screws (torque 1.5 ± 0.25 Nm).

- Final installation**
- A** Insert sash in the frame.
 - B** Align sash laterally.
 - C** Open sash and tighten cheese head screws on top hinge (torque 2.5 ± 0.25 Nm).
 - D** Check that the window works correctly.
 - E** If necessary, adjust sash contact pressure using eccentric locking cam.

- Hinging the tilt only stay**
- A** Push back the anti-lift device of the stop (10) (Figure 1).
 - B** Insert pan head rivet of the tilt only stay LM (8) in the provided guide (Figure 1).

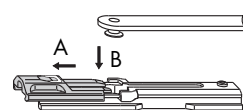


Figure 1

- C** Release the anti-lift device of the stop (10) (Figure 2).
- D** Insert barrier (9) in provided groove and snap into place (Figure 2).

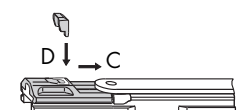


Figure 2

ALU 4200-K Installing the tilt only security stay

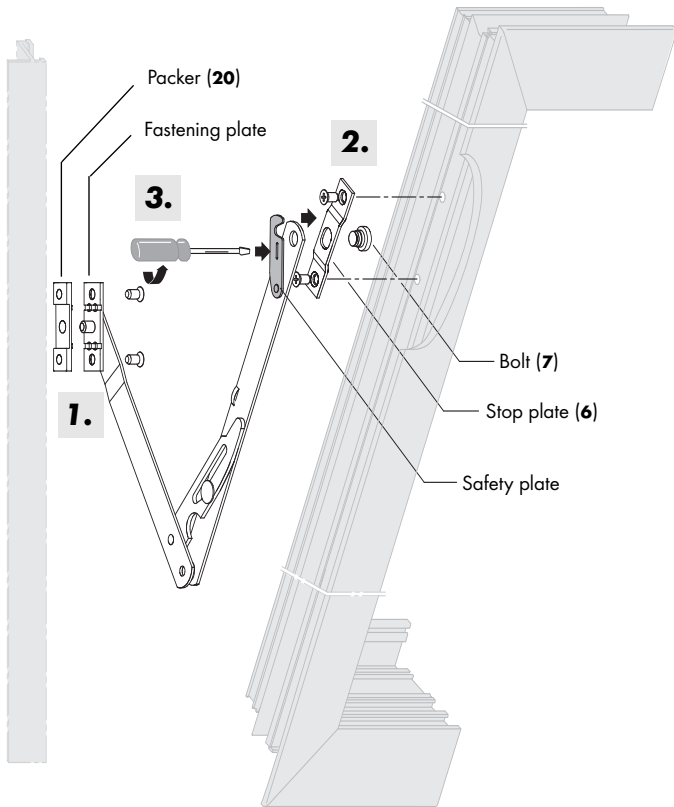
WARNING

Unsecured sash frames can pose a risk of injury.

- When being hinged into the frame, the unsecured sash frame can tilt downwards suddenly and lead to serious bodily injury.

Always have two people present when hinging or unhinging the tilt sash.

All rules and regulations regarding job safety must always be observed when working above the head, on ladders and at great heights.



Installing the tilt only security stay

Preparation

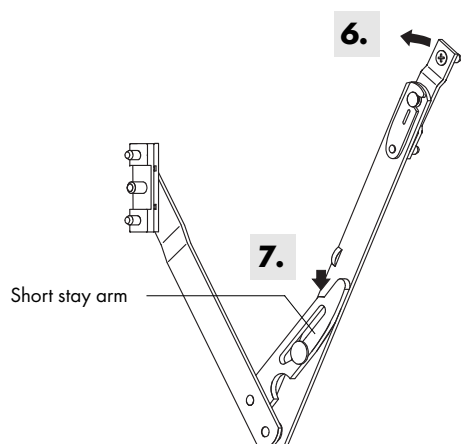
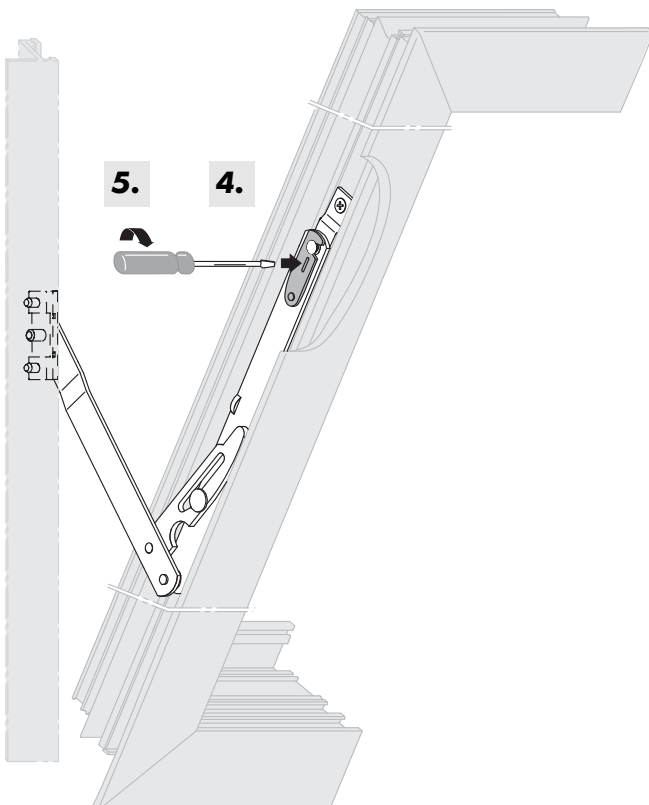
Drill holes for tilt only security stay according to specifications on pages 7, 8 and 9.

1. Apply fastening plate to frame groove and fasten using countersunk screws M5 x 13 (5) (torque 2.5 ± 0.25 Nm).
2. Insert stop plate (6) and bolt (7) in the guiding groove and fasten with countersunk screws M5 x 13 (5) (torque 2.5 ± 0.25 Nm).
3. Tilt up the safety plate of the tilt only security stay.
4. Hinge tilt only security stay into the installed bolts (7).
5. Tilt back the safety plate to the original position.

Unhinge it in the reverse order.

Stay in full tilt cleaning position

6. In tilt position, lift sash slightly.
7. Press short stay arm downward and lower sash into full tilt cleaning position.

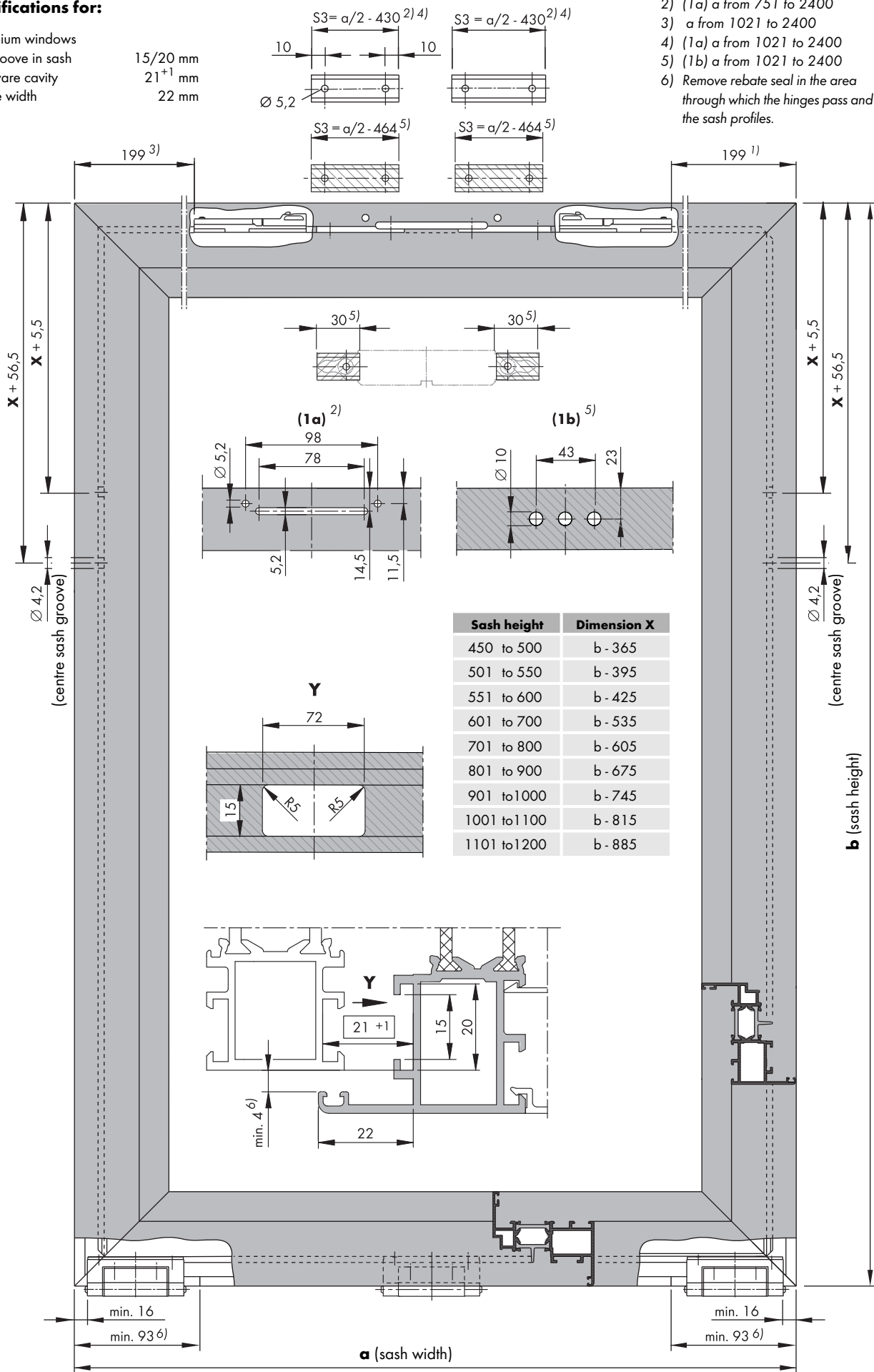


ALU 4200-K Sash dimensions

All dimensions (in mm) and specifications for:

| | |
|--------------------|---------------------|
| Aluminium windows | 15/20 mm |
| Eurogroove in sash | 21 ⁺¹ mm |
| Hardware cavity | 22 mm |
| Rebate width | 22 mm |

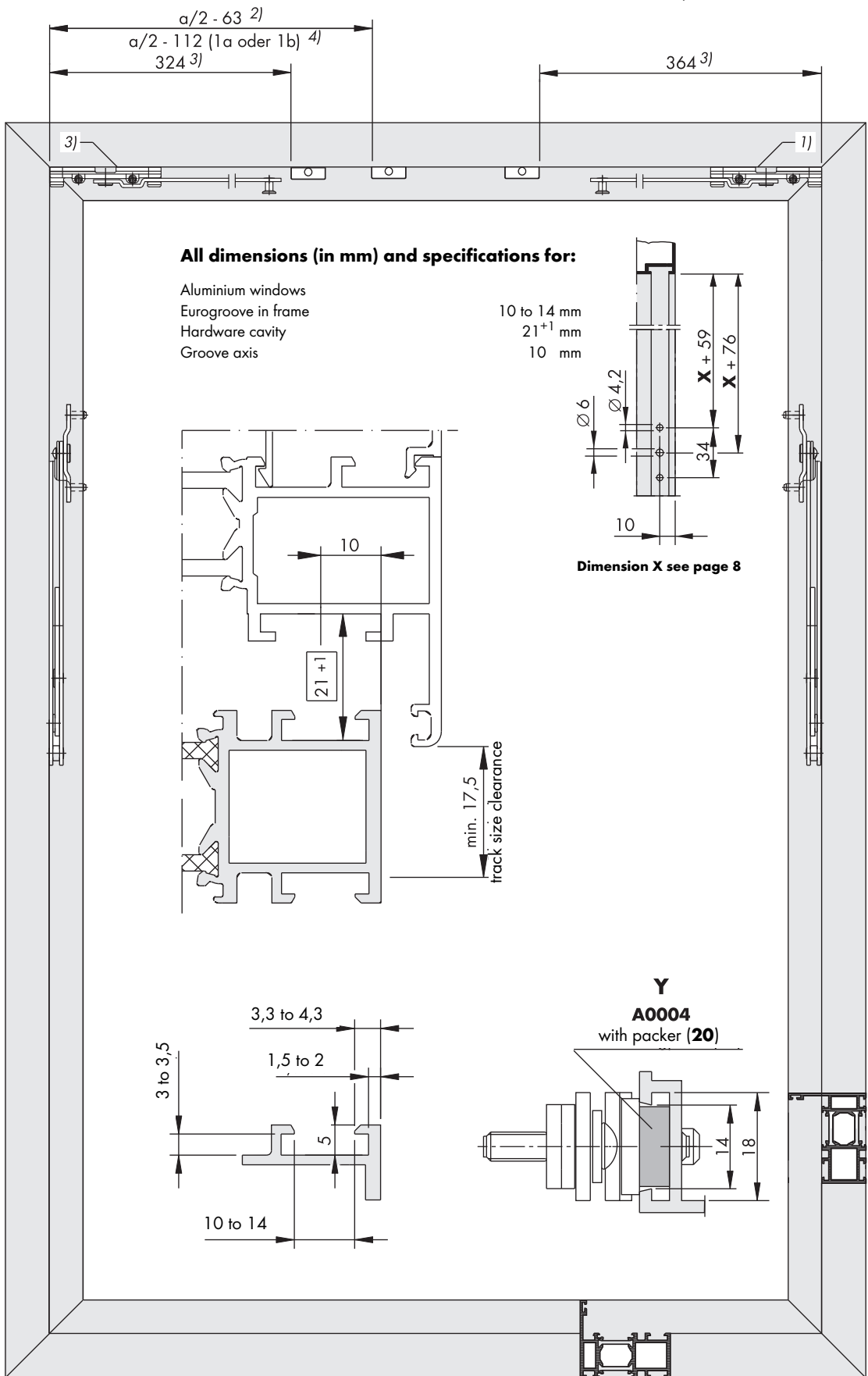
- 1) a from 400 to 2400
- 2) (1a) a from 751 to 2400
- 3) a from 1021 to 2400
- 4) (1a) a from 1021 to 2400
- 5) (1b) a from 1021 to 2400
- 6) Remove rebate seal in the area through which the hinges pass and rework the sash profiles.



| Sash height | Dimension X |
|--------------|-------------|
| 450 to 500 | b - 365 |
| 501 to 550 | b - 395 |
| 551 to 600 | b - 425 |
| 601 to 700 | b - 535 |
| 701 to 800 | b - 605 |
| 801 to 900 | b - 675 |
| 901 to 1000 | b - 745 |
| 1001 to 1100 | b - 815 |
| 1101 to 1200 | b - 885 |

ALU 4200-K Frame dimensions

- 1) FB from 400 to 2,400
- 2) FB from 751 to 1,020
- 3) FB from 1,021 to 2,400
- 4) FB from 1,251 to 2,400



Basic safety notes

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 (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 on a window with hardware components from other systems or manufacturers, it is not possible to guarantee that they will operate safely.

Hardware components may 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

- Treating window surfaces after assembling the hardware may affect the components' operational reliability.

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.
- Leave the hardware to dry after cleaning.

Pass on information to the user of the window

- Attach the user information order no. 05083 to the installed window or door element so that it can be seen easily.
- Pass on the following leaflets to the user:
 - Maintenance and cleaning instructions SI-AU order no. 17772
 - Operating instructions SI-AU order no. 05766

Exclusion of liability

- We assume no liability for functional disorders and damage to the hardware, or to the windows and French doors equipped with the hardware, where such malfunctions and damage are the result of insufficient tendering information, failure to follow these installation instructions or forceful impact (e.g. due to improper use).