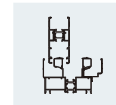
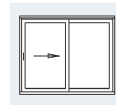
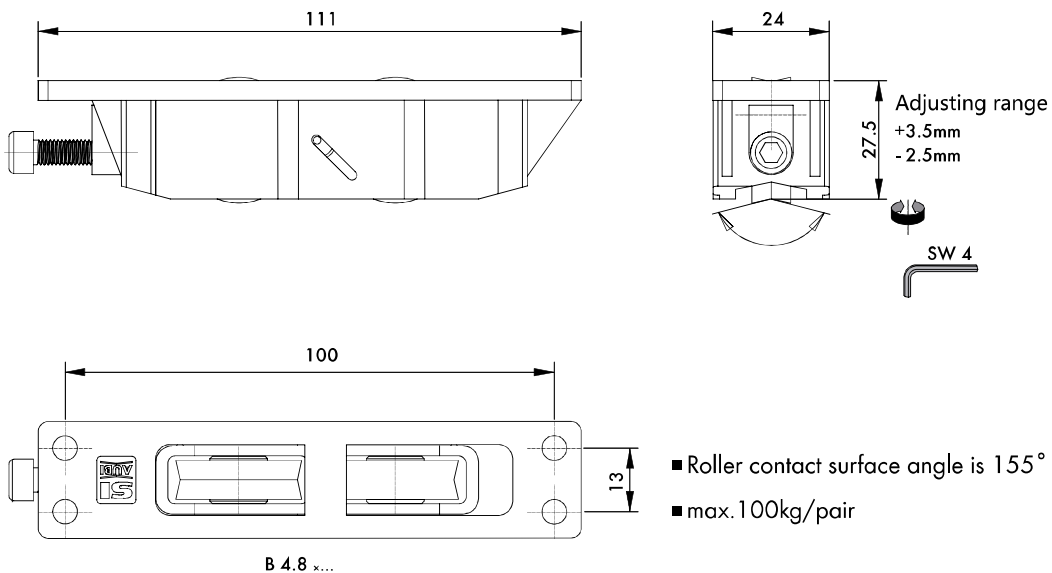


Aluminium sliding – ALU CS bogie wheel

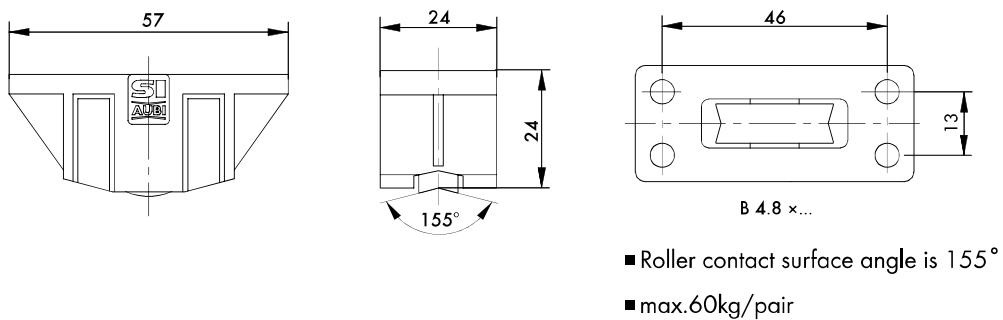


Bogie wheel ALU CS 100



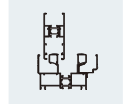
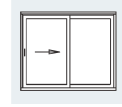
1

Bogie wheel ALU CS 60



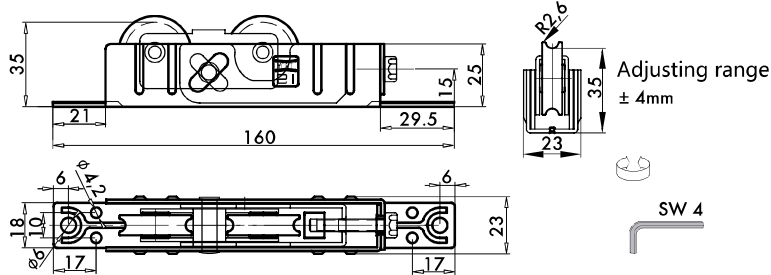
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Aluminium sliding - ALU CS bogie wheel



ALU CS 120kg H35 bogie wheel

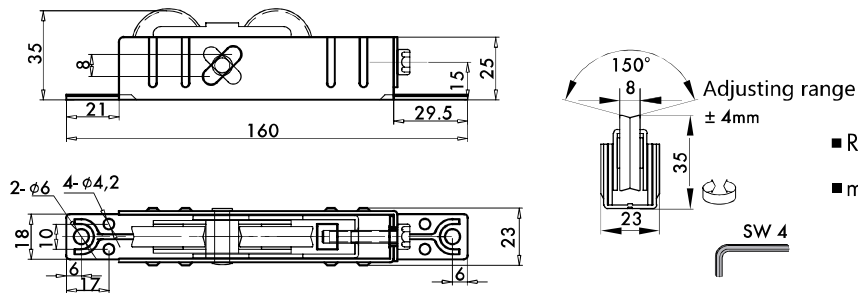
3



- Roller contact surface angle is 150°
- max. 120kg/pair

ALU CS 120kg H35 bogie wheel

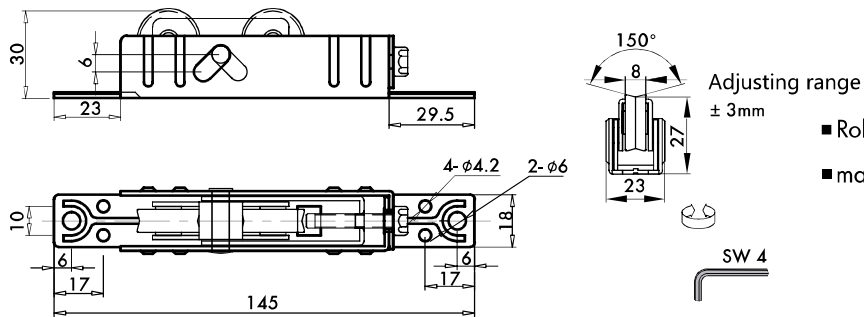
4



- Roller contact surface angle is 150°
- max. 120kg/pair

ALU CS 120kg H27 bogie wheel

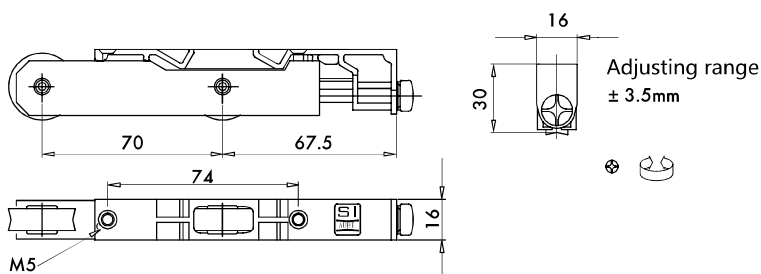
5



- Roller contact surface angle is 150°
- max. 120kg/pair

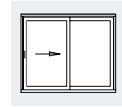
ALU CS 150kg bogie wheel

6

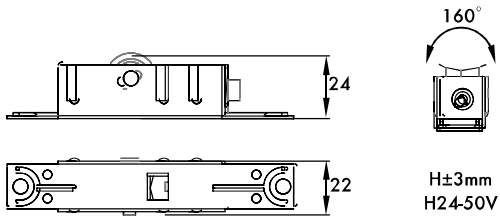


- Roller contact surface angle is 155°
- max. 150kg/pair

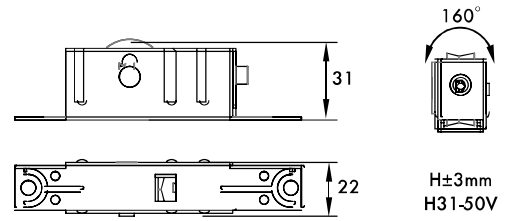
Aluminium CS bogie wheel systems



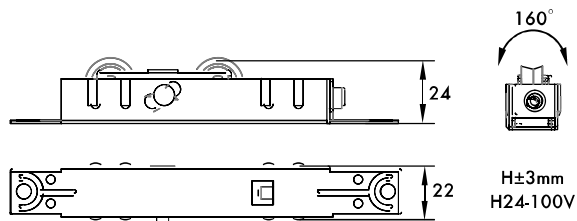
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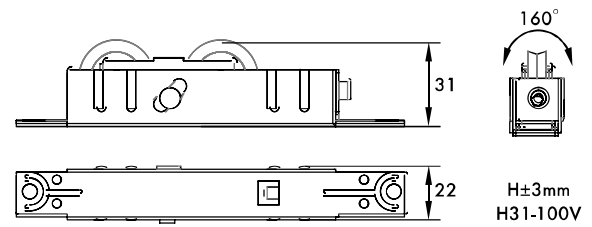
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9



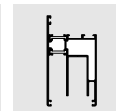
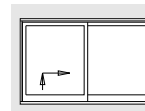
10



LM-CA 120kg
LM-CS 120kg V bogie wheel H27 K10
V bogie wheel 150kg

HS-PORTAL 200 LM

Lift and sliding hardware for aluminium doors
Hardware information for profile manufacturer



... with the following benefits:

- with integrated night vent
- profile cylinder accessories
- secure due to 4 locking points on the drive gear
- fixed wheels allow simple and easy assembly
- smooth operation

Size range

| | | |
|-------------------------------------|------|--------------------------------|
| Sash width | (mm) | profile dependent max. 2485 |
| Sash height (<i>Sliding sash</i>) | (mm) | profile dependent max. 2675 |
| Frame width | (mm) | with Scheme A max. 5000 |
| Frame height | (mm) | profile dependent |
| Sash weight | (kg) | max. 200 |
| Backset (<i>Gear</i>) | (mm) | 27,5 |
| Handle position (<i>Window</i>) | (mm) | from top edge running rail 395 |
| Handle position (<i>Door</i>) | (mm) | from top edge running rail 995 |

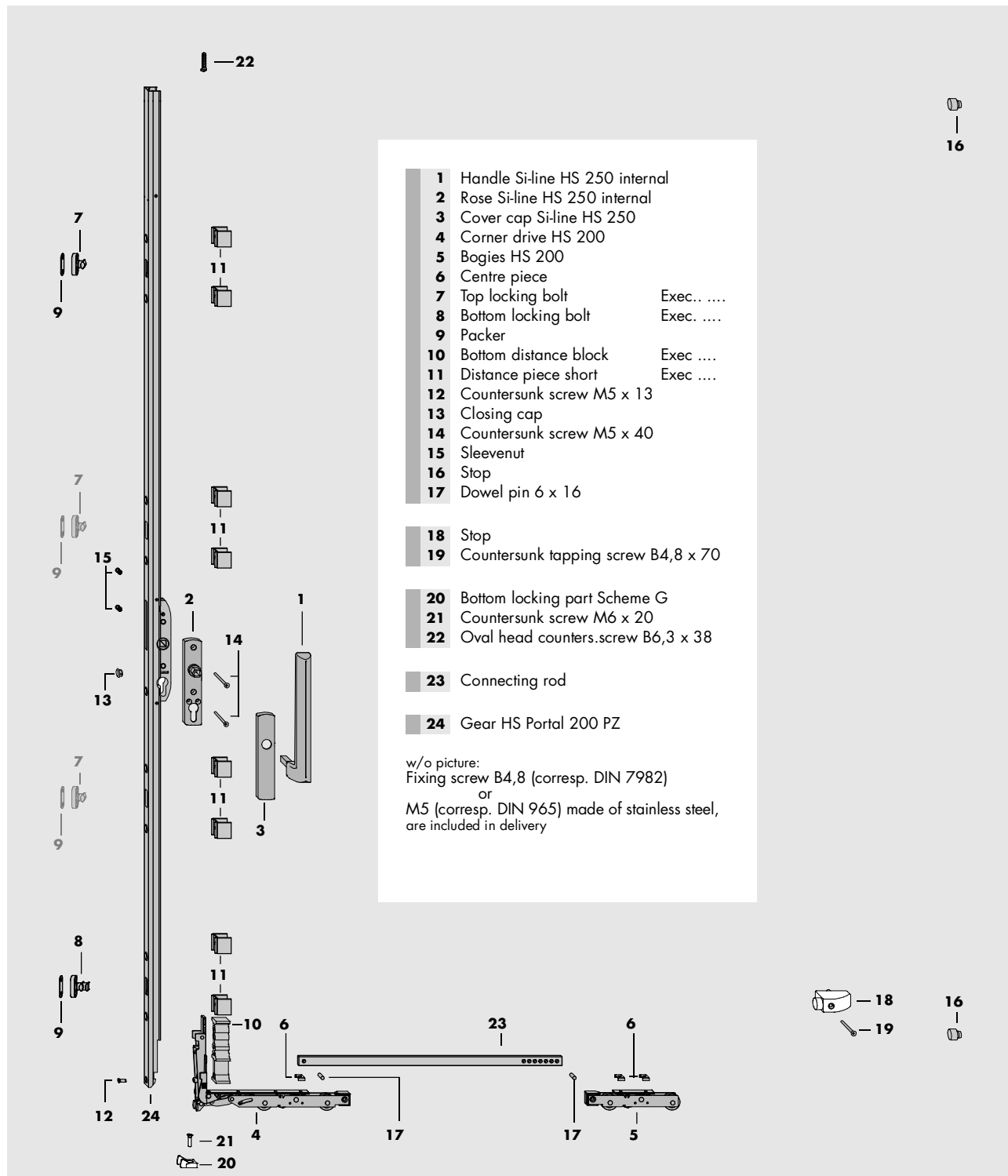
Contents

| | | | |
|-------------------------------------|--------|----------------------------|---------|
| Size range..... | Page 1 | Fitting detail(I)..... | Page 6 |
| Fittings layout..... | Page 2 | Fitting detail(II)..... | Page 7 |
| Parts list..... | Page 3 | Scheme Options..... | Page 8 |
| Profile dependent measurements..... | Page 4 | Specifics on scheme C..... | Page 9 |
| Accessories..... | Page 5 | Jigs..... | Page 10 |

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HSgb7019_3_2005-01/0

Assembly instruction
HSgb7019

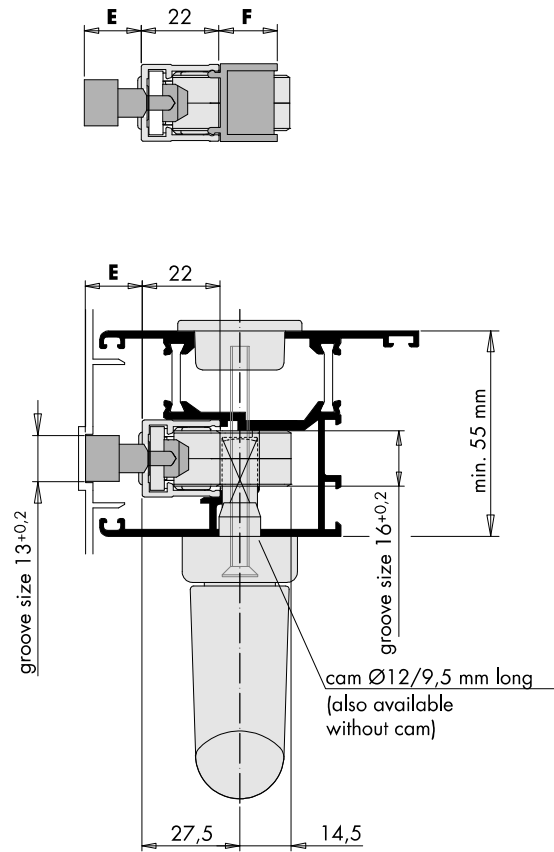


Flexible by optimized packing units

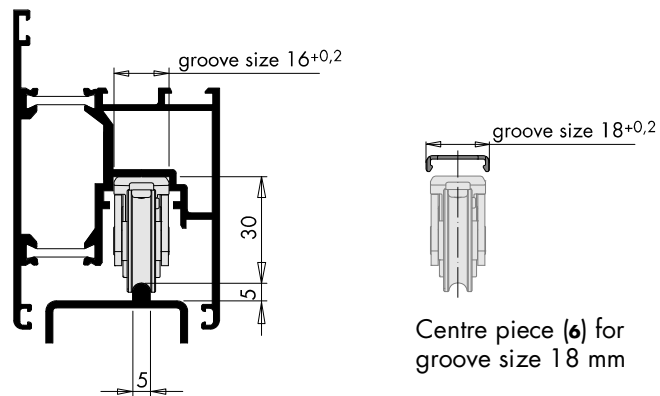
- Handle Si-line HS 250 internal (**1**) and Cover cap Si-line HS 250(**3**) available in white RAL 9016 – silver – si-brown
- Basic parts (**4 to 17**) in Carton HS-Portal 200 LM (profile dependent)
- Sash width dependent connecting rod size 150 to 335 (**23**)
- Sash height dependent Gear HS-Portal 300 PZ size 170, 220 and 260 (**24**)

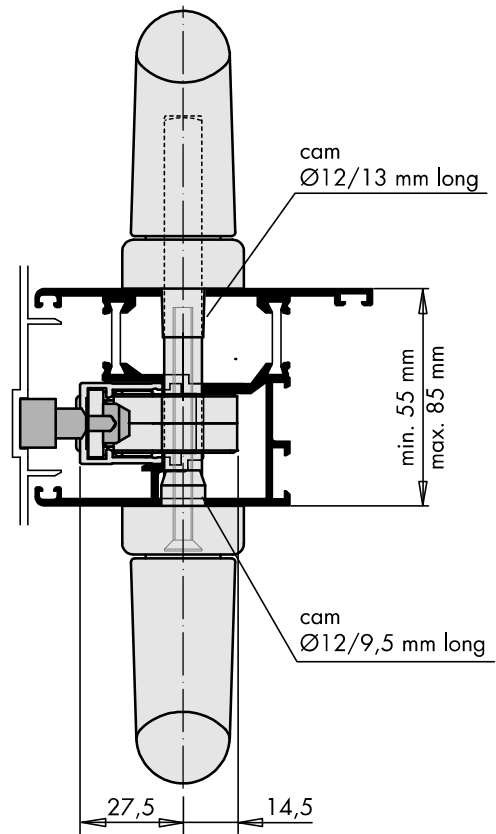
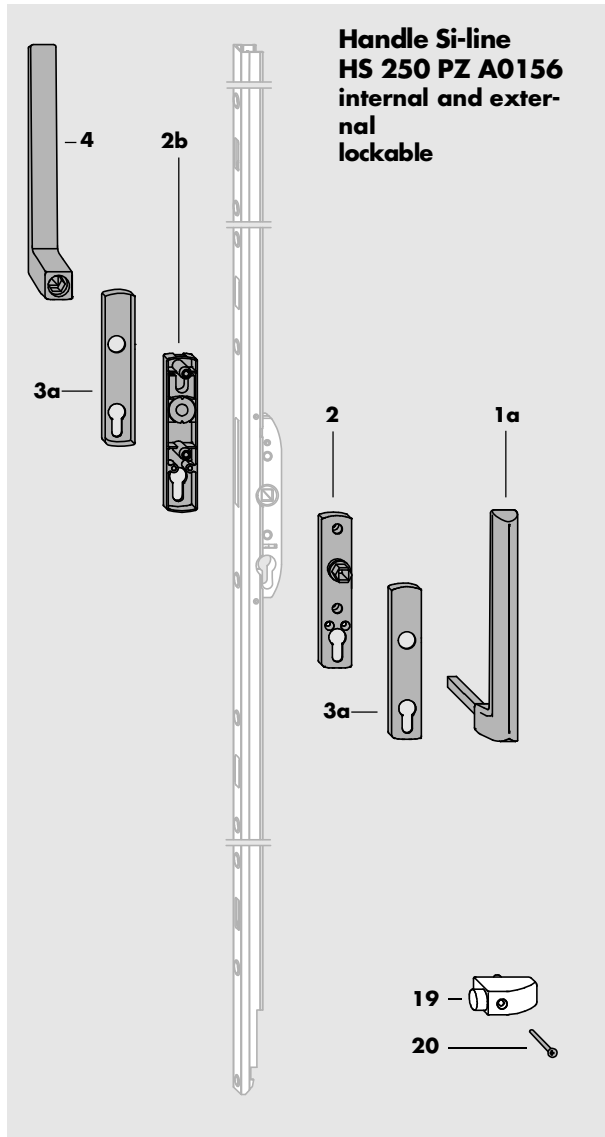
Distance block(10) and Distance piece, short(11)

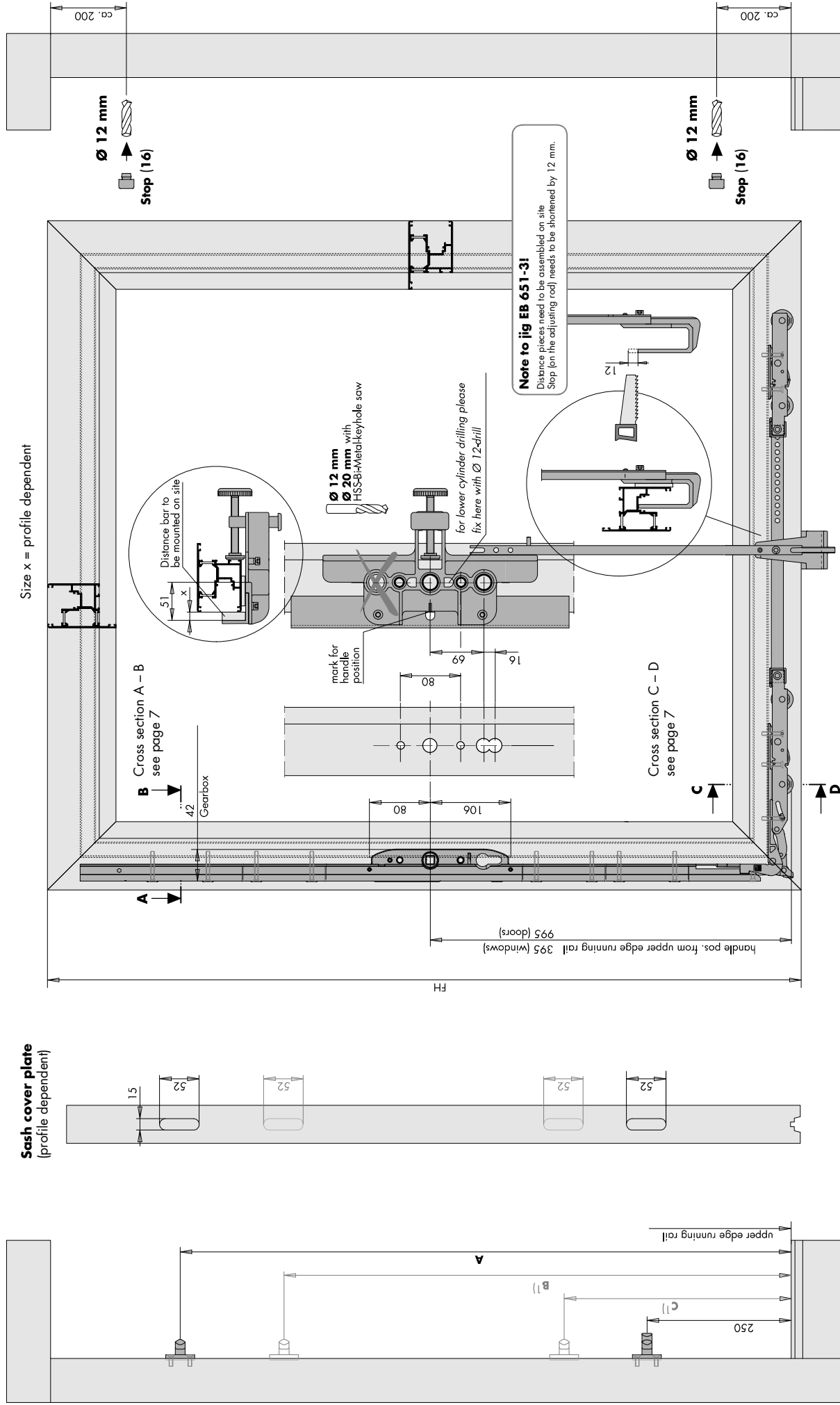
Cross section A-B



Cross section C-D







1) If requested 2 pcs top locking bolts (6) can be used as additional centre lock. The locking points on Gear HS-Portal 300 PZ (23) must be opened.
 2) Small deviations possible (profile dependent)

| Gear | Size A | Size B 1) | Size C 1) | Sash height 2) |
|---------|--------|-----------|-----------|----------------|
| Gr. 170 | 1000 | 600 | — | 1175 - 1775 |
| Gr. 220 | 1600 | 1200 | 750 | 1776 - 2275 |
| Gr. 260 | 2200 | 1200 | 750 | 2276 - 2675 |

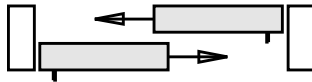
HS-PORTAL 200 LM *Hardware information Scheme Options*

DIN left hand or **DIN right hand**

Scheme A



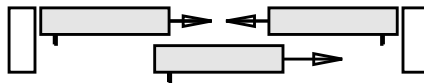
Scheme D



Scheme G



Scheme H



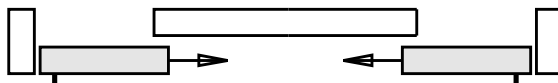
Scheme C

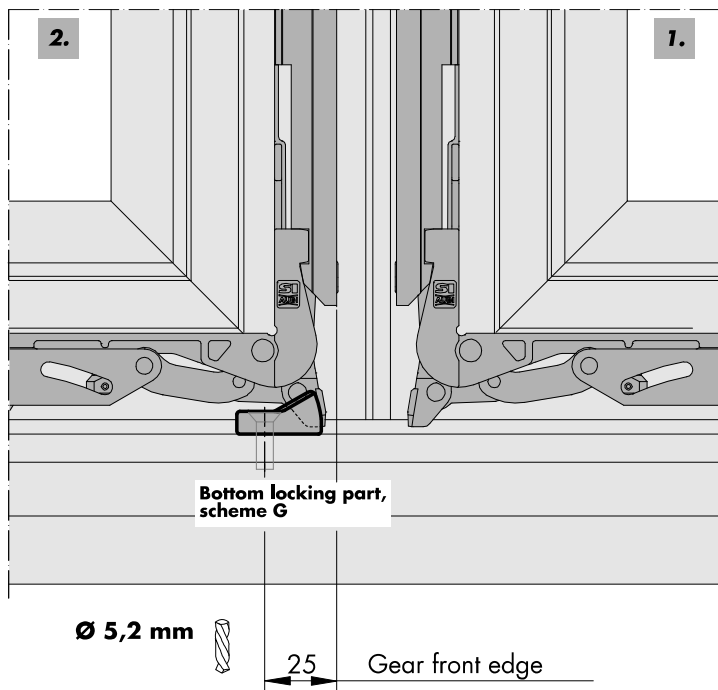
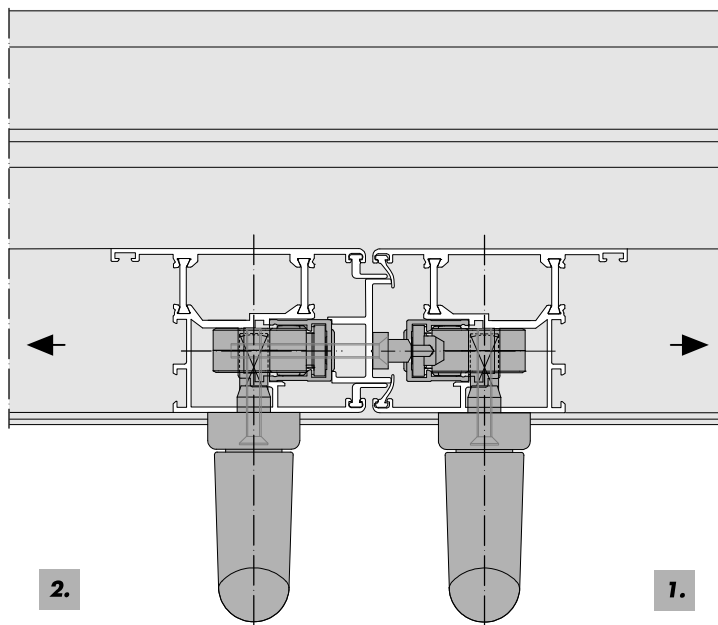


Scheme F



Scheme K





Notes for scheme C:

- The locking points are lowered by 4mm
Reduce Dim A to C on page 14
by 4 mm
- screw a self tapping screw B6,3 x 38 (**22**)
into the frame ~ 50 mm from the sash lead-
ing edge above the slave sash
[see also page 9]
- To avoid misoperation of the two leaves ,
the master and slave sashes should be clear-
ly identified.

The sliding doors should only be operated
in the following sequence !

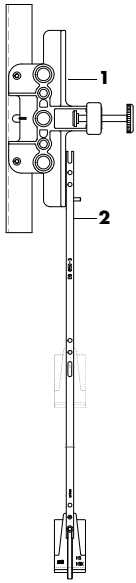
Opening: first the master [1.],
then the slave sash [2.]

Closing: first the slave sash [2.],
and then the master [1.]

Fitting the locking parts , bottom, Scheme G

- A Mark the running rail 25 mm behind the gear front
edge
and ctr punch for a csk screw M6 x 20 (21).
- B Pre drill with a Ø 5,2 mm drill.
- C Screw in the locking part for Scheme G, bottom(**20**)

HS-PORTAL 200 LM Hardware information Jigs



| Materialshorttext | Tool | Materialnumber |
|---|-----------------------------------|--------------------------------------|
| <p>Jig EB 651-3 consisting of: for gear drillings</p> <p>Pos. 1 Bohrlehre EB 651-3* Jig has backset 51; According to profile dependent back- set please use distance piece on site</p> <p>Pos. 2 Adjusting rod for EB 650-3 and EB 651-3 (incl. lower stop) Lower stop needs to be shortened by 12mm! See page 5 a. 6</p> | <p>Drill: Ø 12 mm Ø 20 mm</p> | <p>PABB0010-521010</p> <p>157244</p> |
| <p>Centre punch KF for ctr punching the hole for the lock- ing part</p> | | <p>141892</p> |