MACO RAIL-SYSTEMS
SLIDING FITTINGS

Slide&Tilt hardware / MULTI-MATIC / Timber 12 gap / self-engaging
Application
Self-engaging

<table>
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<th>650 - 1650</th>
<th>840 - 2450</th>
<th>160</th>
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Backset

Sash rebate width (SRW)

Sash rebate height (SRH)

Sash width

Handle dimension

Frame rebate width

Frame rebate height

Left version shown,
Right version as mirror image
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Product liability

Important notes

• Observe the maximum and minimum dimensions as well as the max. permissible sash weight.

• Observe the specifications of the profile manufacturer, especially with regard to possible restrictions of the minimum and maximum heights, the sash weight and the locking point.

• Do not make any changes to the design of the fitting components.

• Use only MACO hardware for the entire fitting.

• Mount all fitting components as described in these instructions and observe all safety instructions.

• Use the screw sizes specified. Match the screw lengths to the profile system.

• Insert the screws straight (if not otherwise specified) and do not over-tighten them, since this would otherwise adversely affect the smooth running of the hardware.

• Fasten the screw of load-bearing components (e.g. roller, roller track and guide track) onto the reinforcement profile.

• Make sure there is a positive transfer of pressure forces onto the reinforcement profile in the area of the roller.

• Do not use acidic wetting sealants, since these can cause corrosion in the fittings.

• Keep the roller track and all sashes free of soiling and masonry residue. Avoid contact of the hardware with moisture and cleaning agents.

• Attach the operation sticker so that it is easily visible on the installed slide&tilt sash.

• If the slide&tilt fittings are subjected to excessive loads or not operated properly the sash can fall out of its guide, please remove thereby cause severe injuries. If excessive loads are to be expected in special circumstances (in schools, nursery schools, etc.), suitable measures must be adopted to prevent damage to the slide&tilt unit For example: – Moving the stop to reduce the opening width, or – Installing a profile cylinder to prevent unauthorized use.

If in doubt, please ask your MACO contact person.

Disclaimer

We shall not be liable for malfunctions and damage to the fittings and/or to Slide&Tilt units equipped with these, if this has been caused by inadequate tendering procedures, non-compliance with these installation instructions, or physical force applied to the fittings (e.g. due to improper use).
Fold-out side 1:
Overview drawings and parts list
1. Top corner element
2. Bottom corner element
3. T&G drive gear, fixed
4. Width unit
5. Height unit
6. Handle
7. Scissor-slider
8. Scissor-slider cover
9. Roller on gear side
10. Roller on hinge side
11. Roller reinforcement
12. Roller cover strip
13. Roller cover
14. Connecting rod
15. Support for cover strip
16. Support block
17. Striker plate
18. i.S. striker
19. Latching plate
20. Guide track
21. Cover Guide track
22. Caps Guide track
23. Top stop
24. Scissor slider
25. Roller
26. Control module
27. Bottom stop
Fold-out side 2:
Sections scale 1:1, view of sash and frame
⚠️ ① keep to dimension!
Dimension for 18 mm rebate leg

② Underlay the roller over the entire length.
(not a MACO article)
Types of openings

Fixed glazing

With mullion

Without mullion

Fixed glazing

With mullion

Without mullion
Types of openings

Fixed glazing

Mullion installed on second sash
Types of openings
Without mullion
Types of openings

Mullion installed on second sash
Sash installation
Hole for handle
Drilling jig No. 10523:
Sash installation

Hole for handle
Lockable drive gear
Drilling jig No. 29038:

Hole for handle
Lockable drive gear
Drilling jig No. 29038:
Sash installation
Installing the central lock

⚠️ 1 - 4 Install

Attach 5 - 8, cut to length and install.

⚠️ 9 The width unit must be cut to length on the drive gear side at the mark. Use Multi-Matic punch!

⚠️ Observe the positions of the Locking cams!
Sash installation

Installing the handle

1. Operate the handle to release the installation fastening.
Sash installation
Installing the scissors-slider and cover
Drilling jig No. 465969:
Sash installation

Cover cap version

Cover strip version

\( \text{a} = \text{gluing points} \)
Sash installation
Installing the roller
Sash installation

1. Set the jig x > 0: for pronounced arches or angles at the sash
   A = Sash / B = roller
2. Apply jig to rebate leg and drill with jig no. 465174

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Diagram:

- **Diagram 1**: Set the jig x > 0: for pronounced arches or angles at the sash.
  A = Sash / B = roller.

- **Diagram 2**: Apply jig to rebate leg and drill with jig no. 465174.

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**Note:**
- Use Ø 4.2 mm holes for attachment points.
- 2 x Ø 4.2 mm holes for securing the sash.
- 4 x Ø 4.2 mm holes for reinforcement.

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**Diagram Details:**
- **Diagram 1**: Diagram showing the placement of jigs and drill points.
- **Diagram 2**: Diagram showing the attachment of parts and the use of Ø 4.2 mm holes.

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**Diagram Numbers:**
- Diagram 1: Set the jig x > 0: for pronounced arches or angles at the sash.
- Diagram 2: Apply jig to rebate leg and drill with jig no. 465174.

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**Diagram Symbols:**
- **Diagram 1**: Diagram showing the placement of jigs and drill points.
  - Diagram 2: Diagram showing the attachment of parts and the use of Ø 4.2 mm holes.

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**Diagram Notes:**
- **Diagram 1**: Diagram showing the placement of jigs and drill points.
  - Diagram 2: Diagram showing the attachment of parts and the use of Ø 4.2 mm holes.
Sash installation

1. Install the roller and support.
2. Cut the connection rod to length.
3. Install the connecting rod at the rear roller.
4. The roller can be fastened at the rear using the jig.
5. Fasten the connecting rod at the front roller.

⚠️ Make sure that the rollers are parallel!
Sash installation

1. Cut the cover profile to length according to the mark on the roller and snap on
2. Clip on the caps at the front

Notes:
We recommend that you do not attach the covers until the sashes have been mounted
Frame installation
Installing the strikers
Frame installation

1. Use drilling jig No. 204774/204776 for drive gear and height unit.
Frame installation

Installing the guide track

1. Cut the guide track to length.

⚠️ Dimension for rebate leg 18.
Frame installation

2. Screw-on jig No. 465173, $Z =$ rebate leg

3. Pre-drill and fasten the guide track, drilling jig 465945
Frame installation
Installing the roller track

⚠️ Underlay the roller over the entire length!

⚠️ Cut the roller track to length to match.

⚠️ Dimension for rebate leg 18.
Frame installation

2 Screw-on jig No. 465173, Z = rebate leg

3 Pre-drill and fasten the roller track, drilling jig no. 465945

Notes:
We recommend that you do not attach the covers until the sashes have been mounted
Inserting the sash

1. Insert the roller.

2. Insert the scissor backsets into the centre slider openings until they snap into the sliders (audible click!) Pull/press down the scissor arms to check that the connections are secure.

3. When installed correctly, the security slider on the side snaps in flush with the edges of the slider housing.

**Caution:** If the scissor backsets do not snap in properly, the window sash will not be held securely and may fall out. Serious personal injuries may result.
Inserting the sash

4 Assembly jig for control module No. 465175 Dimension 72 mm corresponds to distance to outside edge of sash - 10 mm roller for 18 mm rebate leg.

5 Install the bottom stop for the desired opening width of the roller track.

6 Insert the top stop in the guide track and install at the desired opening width.
Inserting the sash

7 Activate the lever lock! Move the lever locks on both rollers back until they snap into place at the marked position.

⚠️ If the lever lock is not (or not correctly) in place at the marked position, the window sash will not be secured properly.

Caution:
Serious personal injuries may result!

Unhinge the scissor stay

1 2 3
Inserting the sash
Correct the parallel setting of the roller

1. Loosen the connecting rod on the roller at the handle side.

2. Push the connecting rod to the left or right to position the rear roller (b) set parallel parallel to the roller unit (a).

3. Fasten the connecting rod on the roller at the handle side.

Regulating the height of the roller

- Lift off the adjustment lock
- Set the height (+ 6 mm)
- Reattach the adjustment lock
Inserting the sash

1. Correct the sash entry and 2. set the contact pressure.

Handle position

1. closed
2. tilt
3. open/close

Anti lock-out device
Prevent the sash snapping into place inadvertently.

⚠️ 4. close

No anti lock-out device