

# MACO RAIL SYSTEMS SLIDING HARDWARE



For a harmonic confluence inside and out



Re-define non-enclosed area as floor space in harmony with nature: to take a breath, let in light or soak up the sun, to relax, or to move your office out of doors. This is not fiction. Lift&Slide units made of PVC merge living space and the freedom of the outdoors just as you like. Feel free to let the nature outside become part of your living space.







The Lift&Slide hardware system for units made of PVC

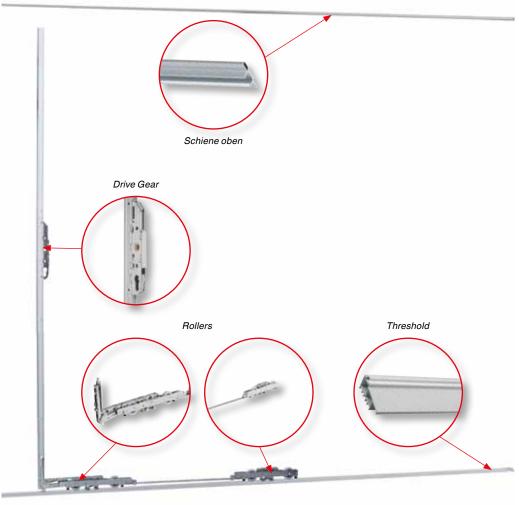


# Sash weights up to 300 kg





With its main product group RAIL-SYSTEMS, MACO has been setting the pace for high-performance, deluxe Lift&Slide solutions for timber units for years now. The Lift&Slide hardware is now also available for Lift&Slide units made of PVC up to a maximum sash weight of 300 kg.





## Made by MACO



Lift&Slide hardware, standard rollers and the unique performance characteristics of the GRP threshold are in-house MACO developments.

Lift&Slide drive gears, including accessories, are manufactured at MACO's Austrian location in Trieben according to DIN EN ISO 9001:2008 quality standards.

#### The fundamental benefits of Lift&Slide hardware

- Straightforward installation of the hardware
- · Maintenance-friendly
- Threshold made of GRP (glass-fibre reinforced polymers)
- Insert profiles for enhanced energy savings
- Solution suitable for wheelchairs
- · Clip-on accessories
- New brush technology
- Extremely corrosion-resistant TRICOAT-plus available as an option





### Rollers with brush technology





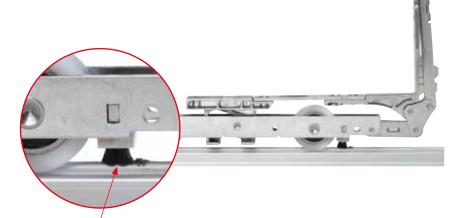
### Keep on moving



Construction dust, sand grains, hairs from domestic pets, small stones from the garden. Dirt always accumulates, no matter whether during installation or in day to-day use. On the roller, it becomes an unwanted braking mechanism. Gradually it finds its way into the roller. And the unit stops running smoothly. What could be better than simply brushing this dirt away?

And this is just what the brushes do. A brush is located on each roller. These brushes remove the dirt from the roller track each time it is operated This guarantees a smooth running of the rollers over the long term. The brushes are included as standard on Lift&Slide rollers for PVC units.

Special brushes that match the roller technology are used. During production of these brushes, each individual hair is embedded securely the brush head. The brush hairs are arranged slightly slanted to ensure an optimum brushing action in the rounded roller track. This ensures a constant cleaning process over the entire service life.



The brush technology on the MACO Lift&Slide roller: A brush is located on each roller.

A two-part (in total four-wire) roller carriage is used for each sash unit. The brushes always act in the direction of travel in front of the roller: four rollers, four brushes; always in motion.



## Less operating effort





The modified corner deflection optimises the lifting mechanism of the roller. Together with the new Lift&Slide drive-gear, the lifting mechanism significantly reduces the operating effort required.

The new kinematics bring savings of around 15 percent.

This reduces the effort required by operator to move the Lift&Slide unit by about 1 Kg!

In concrete term, this means: If you had to lift up 6 Kg in the past to move 200 kg sash for example, you now only need to lift 5 Kg.







### Roller accessories

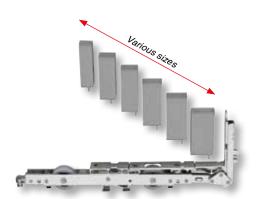




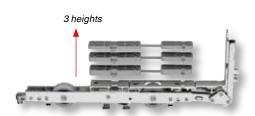
All roller accessories are manufactured in plastic by MACO in its in-house production plant. All packers required for the rollers for plastic profiles are available in a variety of sizes. The roller packers (horizontal) are

available in heights 6, 8 and 10 mm and snap-on to the rollers. This allows them to be used with a wide variety of plastic profiles. At the same time, they can also be used for the front and rear rollers. To cover the variety of profile

grooves, simply stack the roller underlay as required one above the other. In this way, the three heights can be combined and stacked individually.

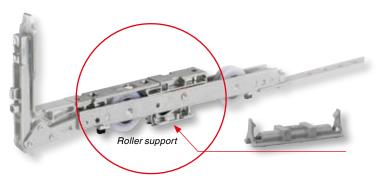


Packers for vertical 300 kg Lift&Slide roller



Underlay for horizontal 300 kg Lift&Slide roller

A support on the roller completes the side-seal plastic profiles. It supports the rollers when the sash is lowered.



## New Lift&Slide drive gear

The new drive gears can accommodate up to four locking bolts. Holes are already provided for two locking bolts, and pre-stamped on the drive gear for a further two. Four locking bolts make for enhanced

• Drive gear available in the colours silver, brown and bronze

burglar protection. The new head shape of the locking bolts improves the sash lift and enhances the unit's aesthetic design.



locking bolts



Standard locking bolts optional

The locking points are pre-stamped and easy to open when needed



Standard



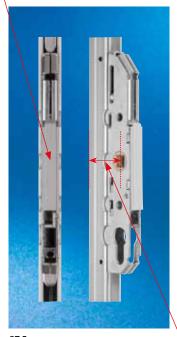
locking bolts optional



locking bolts

### Rear cover

protects against soiling, and can be dismantled as required



27.5 mm 37.5 mm backset



## Installation is child's play





### Fail-safe and uncomplicated

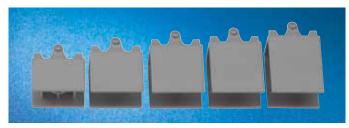
All accessories for MACO Lift&Slide hardware required for processing the plastic profiles are easy to snap on in the correct position thanks to the handy positioning lug. Proper installation just couldn't be easier!



The positioning lug makes for error-free placement of the packer.

### Packer for drive gear

Different sizes of plastic packers are available for the drive gear to match the range of profile groove designs.



Various sizes of plastic packers for the drive gear



## For a variety of profile geometries





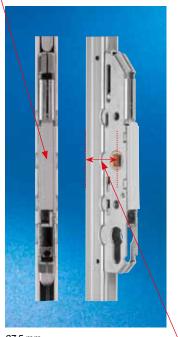
#### **Backset**

The rear backset of drive gear is 15 mm or 12.5 mm in size. For both dimensions, the main-lock casing is flush with the profile. The shortened backset obviates any need for milling the plastic profile. This is the benefit of the 12.5 mm for use on what are otherwise deviant profile geometries. It is now easy to reduce the backset by simply omitting the detachable cover flap. It

is located on the main-lock casing and ensures that the casing is enclosed. No dirt can enter and the drive-gear mechanism is protected over the long term. If the cover is removed, the backset is 12.5 mm, making it easy to use with a variety of profile geometries - no milling required.

Rear cover

protects against soiling,
and can be dismantled as required



27.5 mm 37.5 mm backset



### Securely sealed





### **Locking bolt**

The locking bolt is produced in-house and is made of solid steel; it is in available in a variety of different sizes. This makes it easy to use on any profile.

Its material ensures permanent stability and enhanced security. A standard locking bolt and an air-gap bolt are available.

### Securely sealed

A packer is inserted at the locking bolt to set the optimal contact pressure for the sash seal. It comes in thickness 0.5 or 1 mm. The motto is "snap into place" rather than "screw and fasten to specified tolerances"; simply position lug on the underlay and snap

it onto the locking bolt. You can stack them to the height you require. 1 mm becomes 2 mm, or even 2.5 mm.



Locking bolts made of solid steel in various lengths, with 0.5 or 1 mm packers



### Ventilation included





### Air-gap bolts

Close it - but still let air in?
No problem for the new
air-gap bolt. Just like
standard locking bolts, the
air-gap bolt attaches to the
window frame. It is best
positioned at the bottom.
The bolt leaves an air gap
between the sash and the
frame. Fresh air can circulate

freely through this gap, while the element is reliably secured against intrusion from the outside.



Air-gap bolts produce a gap between the sash and frame, with 0.5 or 1mm packers

#### Slider

The slider for the top guide can be used on the left or right. It acts as an additional side support in the profile groove.

It fastens at the corner; once from the top and once from the drive-gear side.



Various sliders for the top guide - use on the left or right



## Optimum insulation on the floor side







MACO GRP threshold with Lift&Slide Gealan profile

#### **GRP threshold**

The PVC Lift&Slide units are finished perfectly at the base using Fibre-Therm thresholds made of glass-fibre reinforced plastic. This obviates the need for a thermal break right from the start. Thanks to its special plastic intermediate profile, the GRP threshold can be adapted suit to a variety of PVC profiles. The low heat transfer coefficient of the GRP threshold makes a thermal break superfluous.

If the insert profile sections are used, the threshold achieves a sensational U-value. The insert profiles are available as an option and can be ordered individually from MACO as required.



The MACO GRP basic profile and the insert profile can achieve an U value of 0.82 W/(m<sup>2</sup>K).



### Useful accessories

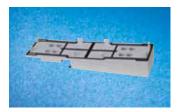




### **New connector plate**

The associated connector plates that accommodate the frame section complete the threshold. The connector plates made of plastic are matched to suit the various profile systems. An innovation

here is the sealing lip that is shaped to match the profile contour and thereby ensures excellent impermeability.



Connection gap to accommodate the frame section

### New intermediate profile made of PVC

The new intermediate profile made of PVC ensure an optimal connection between the threshold and the fixed sash unit. It has sealing lips on the inside and outside and is designed for quick and easy installation.



GRP threshold with PVC intermediate profile

### Sash positioner

The sash positioner stabilises the sash against wind loads and encloses the lug on the roller to hold it firmly in place.



The sash positioner stabilises the sash against wind loads.









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