### Welcome to our World of Windows

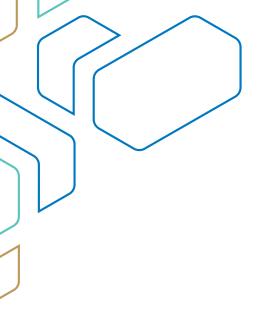
## Our solutions for your timber, PVC and aluminium windows





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## Windows all round We are here for you

We are the right partner for your windows. We think far beyond the individual hardware component. We offer you a variety of complete solutions for a wide range of requirements, including comprehensive services. Benefit from our many years of experience and we will realise your windows together.



## Our promise Your benefits





#### **Security**

We specialise in burglar resistance and retrofitting. Trust in our years of experience in mechanical and electronic engineering.



#### Accessibility

We help you eliminate obstacles from your life with zero thresholds and easy-to-operate and automated elements.



#### **Energy efficient**

Improve your environmental impact with sustainable windows with gaskets and thresholds that perfectly match the hardware.



#### **Surface protection**

Silverlook-Evo and Tricoat-Evo make hardware even more resistant, durable and smooth-running for added convenience during installation and operation.



#### **Smart Home**

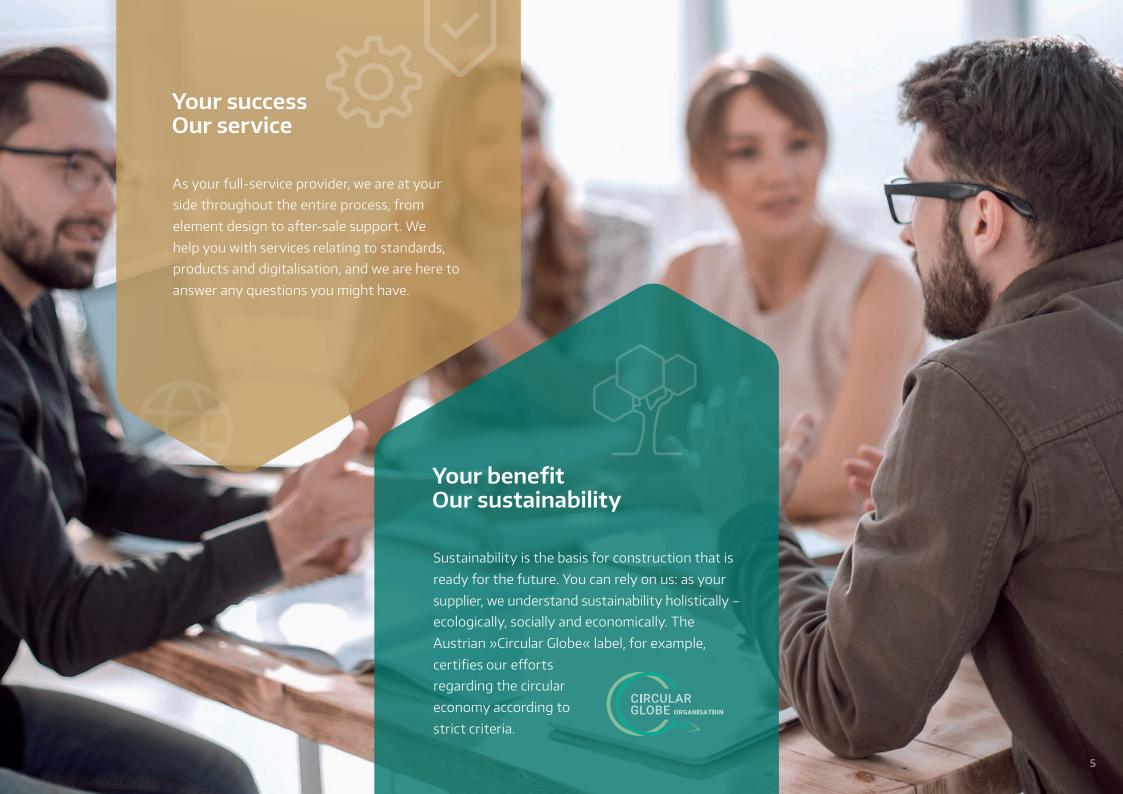
Our smart building components make living more comfortable and secure. Ask us for details.



#### **Partnerships**

We support you from the initial enquiry through to after-sales service. Our employees are at your side.





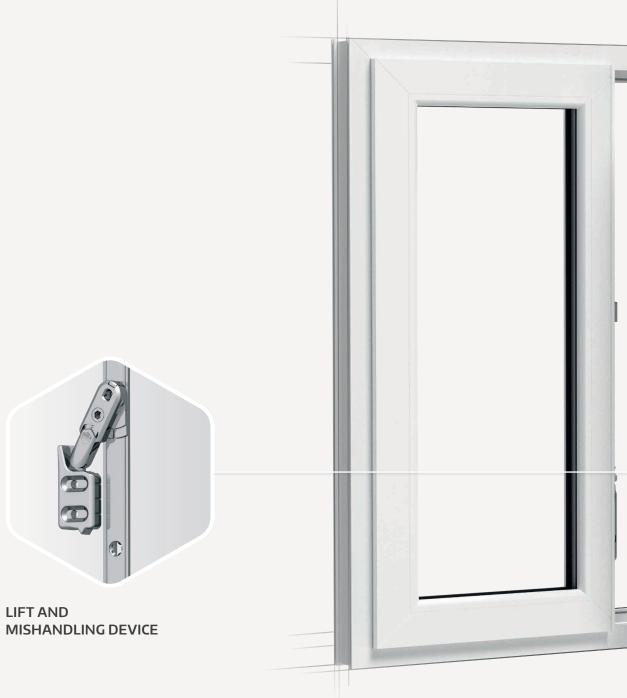
### **Multi Power**

### **Concealed hardware?** We've got that covered.

Today's design is also noted for having concealed hardware and flush surfaces. With the Multi Power hinge side, you can fulfil the aesthetic requirements of your customers without compromising on functionality. This system supports multi-sash units and allows particularly convenient window cleaning thanks to its evenness.









#### Invisible hardware, please

The centre lock with the two-hand turnand-tilt hardware disappeared from view in the mid-1970s – only the hinges were still visible. Thanks to Multi Power, these hinges are also invisible now, which is big plus point for aesthetics and cleanability

## Multi Mammut The power pack

Giant windows are in demand like never before. This is where our Multi Mammut heavy-duty hardware shines. Their solid, durable bearing parts allow you to lift timber elements weighing up to 220 kilograms, and PVC elements weighing up to 180 kilograms. We think you'll agree that's quite impressive.

**SCISSOR STAY HINGE** Made from highly stable materials French casement gear Enables convenient operation of the double-opening sash PIVOT POST AND CORNER SUPPORT

Made from highly stable materials

Double-sash timber window with **Multi Mammut heavy-duty hardware** 



SAFETY PIN
Prevents the sash from falling out (optional)

#### Heavy weight?

Why do today's windows sometimes weigh 150 or 200 kilograms? The answer is multi-pane glazing – for sound insulation, security and high thermal insulation. In modern buildings, there is also an increasing demand for huge window elements that let large amounts of light In.

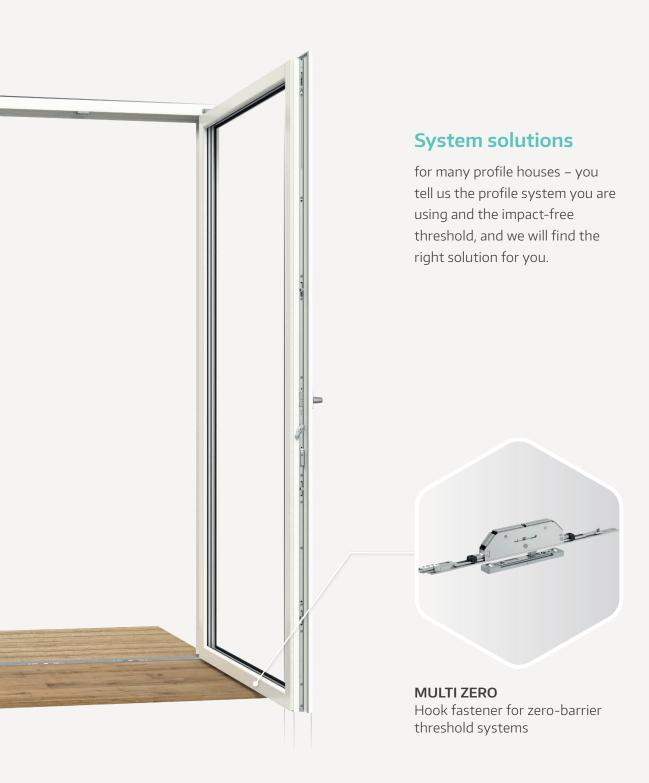
### Multi Zero

### **Barrier-free beauty**

Does perfect accessibility – such as a threshold that doesn't protrude one millimetre from the floor – have to conflict with elegant design? Not with MACO. We let you implement attractive balcony doors whose good looks don't require sacrificing comfort. Realise real barrier-free access for your customers with our impressively secure solution – tested up to RC 2.

**PIVOT POST AND SCISSOR STAY HINGE** Also available in colour with high-quality powder coating **MULTI ZERO THRESHOLD** Hook fastener for zero-barrier threshold systems

Double-sash PVC balcony door with **Multi Zero** zero-barrier threshold system



#### Life without obstacles

Accessibility makes everyday life easier – for everyone. A high threshold, for example, is just as much of an obstacle for a wheelchair user as it is for a father with a pushchair. A floor-to-ceiling window allows bedridden patients to look outside. And the barrier-free floor grille in front of the balcony door? Designing the spacing between the ribs in compliance with standards prevents injuries.

Accessibility is therefore more versatile than you might think at first glance as it removes obstacles and makes life safer and more comfortable.

### **E** hardware

### **Barrier-free operation**

Need to ventilate a room but the window is hard to reach? We've got the solution. With MACO's E hardware, your unit can be tilted automatically via a button or the smart home automation system. The window can still be operated manually as this is very easy to Implement with our standard hardware components.

CONTROL Manual or automatic operation Simple assembly No milling of the frame necessary

Timber windows with **E hardware** and handle



#### No fear of electricity

Test the function of the E hardware during installation in your production facilities with the wire-free commissioning device. This means that your service as a window constructor is usually deemed to have been provided (note the tender requirements), even if the electrician only gets to work later.



**COMMISSIONING DEVICE** 

## Security windows? But of course!

The number of burglaries has fallen slightly, fortunately, but security remains one of our most basic human needs. Realise windows that meet this requirement with MACO. An RC 3 security class element makes life difficult for dodgy characters. We also offer you unique features such as innovative wireless sensors and the self-locking gear. Also in our range are lockable window handles, such as our safe with locking cylinder or push button, which complies with the RC 3 standard.

Timber windows with resistance class 3 **security components** 

#### **Electronic security**



#### **Mechanical security**



#### Reliably tested

MACO is your specialist for burglar resistance. Our electronic and mechanical solutions are a strong defence against thieves. We are also your licensor, which means that we reliably test your security for you. This allows you to prove the burglar resistance of your window elements at a favourable price. Just ask us.

## **SBS Comfort Drive Electric scissor stay**

Structural fire protection features such as smoke extraction systems protect both people and property. In an emergency, the SBS Comfort Drive electric scissor stay ensures that smoke can escape. Within 60 seconds, even large and heavy windows can be opened or closed as well as controlled via the smoke and heat extractors. SBS Comfort Drive is also suitable for controlled natural ventilation.

Aluminium windows with SBS Comfort Drive electric scissor stay





## **SKA 20 Comfort Drive Chain drive**

Are you looking for a compact chain drive for windows and façade elements, skylights or skylight domes? The SKA 20 Comfort Drive can be flush-mounted or integrated into the profile, with additional locking drives for increased airtightness also possible. This clever solution works very quietly and, in addition, several drives can be conveniently networked with each other via the HAUTAU interface. These can then be operated via smartphone or tablet, for example.

Aluminium window with **SKA 20 Comfort Drive** chain drive

### Primat FL 190

## Fresh air for public buildings

Skylight windows are not only the right choice for schools, hotels and hospitals. With the Primat FL 190 skylight opener, windows can be conveniently controlled by hand. This clever system, ideal for rectangular, slanted and arched windows, opens, closes and secures bottom-hung windows made of timber, aluminium and PVC. The optional operation of the central locking system ensures increased airtightness and burglar resistance. With Primat A, there is also a solution for outward-opening top-hung sashes.

PVC windows with

Primat FL 190 skylight opener





### Increased airtightness

Through connection to central locking

TILTING THE SKYLIGHT WINDOW



# Primat kompakt 195 Automatically compact and quiet

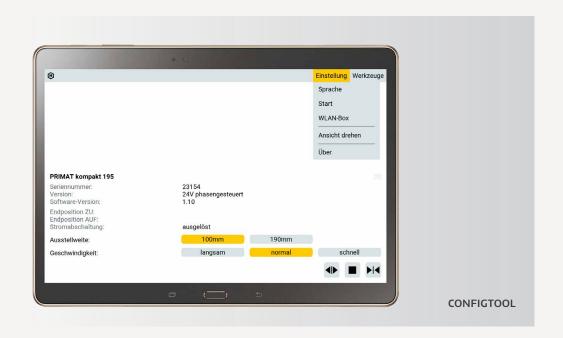
Use the Primat compact 195 automatic skylight opener for natural ventilation (230 volts) or smoke extraction (24 volts). Both variants are super quiet when opening and closing, and also harmonise with many profiles – even narrow ones. They are available with one or two scissor stays and can be used with rectangular or slanted windows. The clever automatic solutions also offer various speeds. These skylight openers are suitable for all materials and can be operated smartly.

# Smoke & heat extractor Fast response

Do you need controlled natural ventilation (CNV) and safe smoke and heat extraction (SHEV)? We offer you customised solutions for the automatic opening and closing of your windows and façade elements. This can be controlled manually via push-button or intelligently via sensors, or control can be combined with a building management system. In the event of a fire, the SHEV systems sound the alarm as quickly as possible and ensure that smoke and heat are dissipated. The alarm can be triggered by fire switches, smoke or thermal detectors.







For Windows

For iOS

For Android

## **ConfigTool Simply configure**

Our ConfigTool configures and operates MACO and HAUTAU products conveniently at the touch of a button. For example, you can set the lifting speed or open and close your element. The clever software harmonises with Android, iOS and Windows operating systems. You can download it free of charge from the Google Play Store and the Apple App Store.





# The windows are the eyes of a house.

Jules Amédée Barbey d'Aurevilly



## Turn-and-tilt hardware Simple doesn't mean boring

Does your customer want simplicity? Even a minimalist window can shine with features. With our products, you offer basic security against levering out with every window. And not forgetting the anti-slam, anti-lift and anti-jamming devices. Your element gets its finishing touch with optimum energy-saving ventilation.

> PVC windows with Turn-and-tilt hardware





## Tilt-and-turn hardware

## A different kind of operation

Tilt-and-turn hardware is in demand when personal safety is at the top of the list of priorities, for example in schools or hotels. In combination with a lockable handle, only tilting is possible. This element can only be opened completely by authorised personnel with the appropriate key.

PVC windows with

Tilt-and-turn hardware

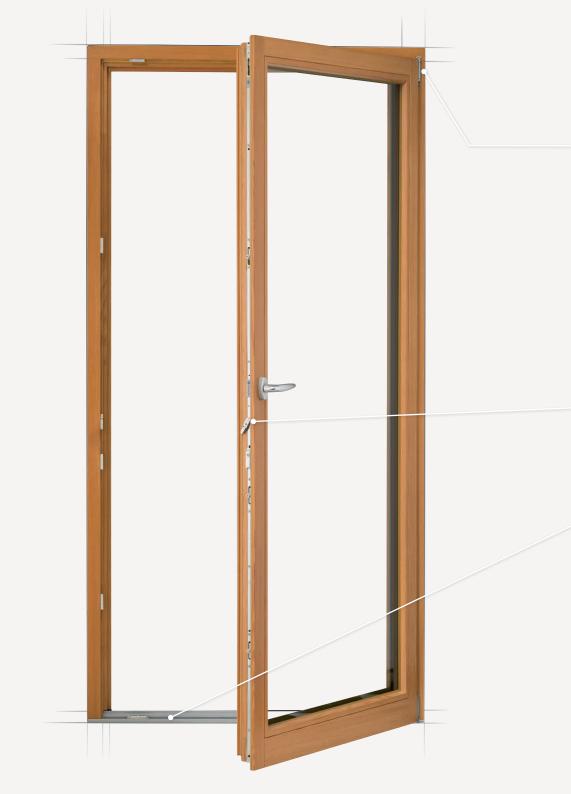
### **Transit threshold**

## Above average even in the standard version

This simple timber balcony door on a double-panel basis is impressive. The latch keeps the sash closed, while the thermally optimised pivot post and scissor stay, combined with the Transit threshold, increases living comfort. And the self-locking drive prevents tampering with the pins.

Timber balcony door with double panel (DT 160) and

Transit threshold





**GASKETS**For sashes and/or frames



SCISSOR STAYS
Thermally optimised, visible parts with high-quality powder coating in various colours



**TRANSIT THRESHOLD**Alternative to the surrounding frame profile



LIFTING AND FAIL-SAFE
DEVICE WITH DOOR CATCH

#### What can a threshold do?

Our Transit thresholds prevent the penetration of water and air and are suitable for all hardware and for various profiles. Say goodbye to condensation and the associated mould formation. A threshold also makes it easier to walk over the balcony door because it is much lower than the usual frame profiles. This also minimises the risk of falls and stubbed toes considerably.

### **Tornado**

### **Turned and swung**

It doesn't always have to be a traditional window – there are other ways, too. Turn and tilt windows are to Tornado what vertical pivot and swing windows are to our Multi-Matic hardware line. This means you can build elements with us that utilise a different mechanism, so you are also well-prepared for niche requirements.

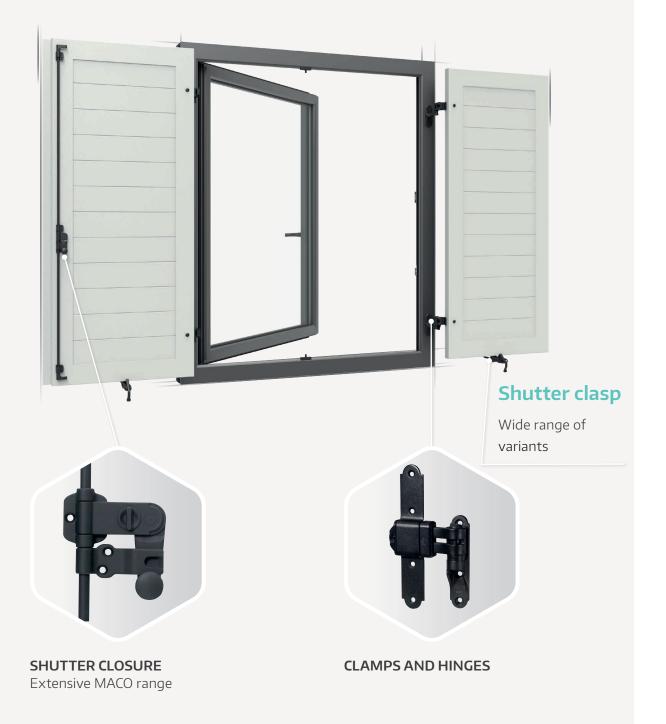


#### **Optimum ventilation**

The tilt opening removes warm stale air at the top while fresh air flows in at the bottom. This corresponds to ventilation with an open turn-and-tilt window

#### More space

Space-saving ventilation, as only half the sash takes up space in the room



### **Rustico**

## For all material worlds

Is your customer trend-conscious? Then aluminium windows are the right solution, as they are easy to clean, robust and durable. Equipped with MACO products, they also boast basic security as standard. Finally, shutters can add the finishing touch. Rustico hardware are versatile and can also be used in minimalist, modern architecture.

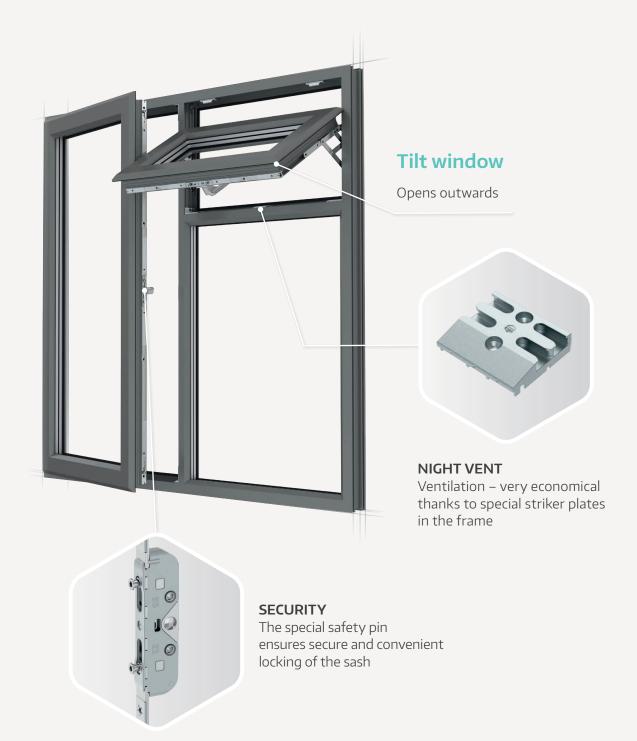
Aluminium window with

Rustico

# Comfort hardware Tilting regardless of handle placement

Perhaps your customer is a wheelchair user, or a window is located behind the kitchen counter and thus difficult to reach. MACO Comfort hardware provides you with a practical solution here. It ensures unrestricted operation, as the handle is located where it is easily accessible – namely on the lower sash frame.





## **Espags hardware Totally British**

Outward-opening windows are particularly popular in the UK and Scandinavia. We take this into account with our Espags hardware. This hardware range opens up unimagined freedom – giving you new sales opportunities and your customers more space in the living room.

Aluminium windows with outward-opening **Espags hardware** 







# Our accessories Everything for your window

From gaskets to window rebate valves – the right accessories complete your windows. Differentiate yourself from your competitors and offer your customers added value. You will find a selection from our range in this chapter and we will be happy to advise you on further options.



#### **Window components**

#### **Everything from one source**

















### Window shapes Everything is possible

The Multi hardware system offers you limitless possibilities. With MACO you can also realise creative shapes – from round, basket and segmental arches to slanted or rectangular windows with a single, double or multi-sash. And you also have a choice of opening types – turn, tilt, turn-and-tilt, swing, turn, slide-and-tilt. Everything is possible, in shape and colour.





## The surfaces An overview

## Tricoat-Evo When it has to be robust

Extreme areas of application require extreme protection. From coastal climates to acidic woods – with Tricoat-Evo you have the right coating. Easy to use and especially resistant to multiple influences.



#### Coating structure

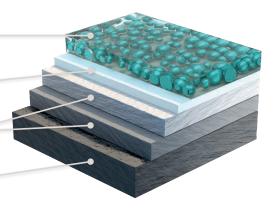
Tricoat-Evo

Tribological sealing with nanocapsules (Evo)

Thick-layer passivation

Extremely strong duplex coating: up to 600 HV (hardness according to Vickers)

Steel or Zamak





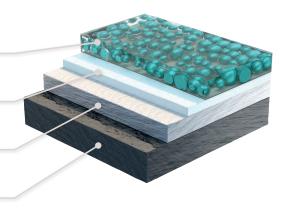
#### Coating structure Silverlook-Evo

Tribological sealing with nanocapsules (Evo)

Thick-layer passivation

Microcrystalline electrogalvanising

Steel or Zamak







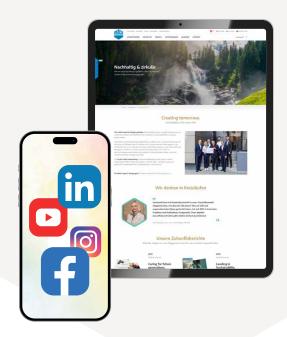
#### Silverlook-Evo

## Good protection as standard

At MACO, Silverlook-Evo is standard, and is self-healing as well as self-lubricating. The coating with nanocapsules fills up small scratches, increases ease of use and makes hardware more durable and more resistant to corrosion.

## Would you like everything from a single source?

We provide you with hardware solutions for your large surfaces, windows and doors – for timber, PVC and aluminium. Experience our versatile range of systems, with comprehensive service included. Discover more on our website **www.maco.eu** or contact your MACO customer advisor. Follow us on social media for the latest news.





MACO near you: www.maco.eu/contact