



TECHNO

OCTOBER 2014 | EDITION 3 | YEAR 22 | CURRENT NO. 74

gramm

**Barrier free
panorama**



Dear business partners and friends of our company,

In the last issue we announced additional new features to our RAIL SYSTEMS hardware for lift and slide doors. We are confident that this system will provide you with genuine added value for your retail business. The benefits for clients in terms of convenience, durability and energy conservation speak for themselves.

Our product developers and managers have continued to perfect the system with much energy and enthusiasm for the technology. The aim was to increase the benefits both for you and your customers. Pages 3 to 13 will certainly arouse your curiosity to get to know our innovative RAIL features in detail. Please contact your sales consultant at MACO and allow us to give you the details.

All MACO products are subject to strict quality controls. You have probably heard or read the term "zero-fault tolerance". It is based on a US-based management approach and aims, among other things, to achieve quality-focused management. In essence, it is about continuous process improvement in all business sectors. Ultimately, this is reflected in the product and service quality.

Our commitment to quality is tangibly expressed in our quality management system based on the ISO 9001 standard. This

defines standards for the entire development and manufacturing process through to sales. Regular checks by external bodies, so-called audits, safeguard the effectiveness of our system. They help us to identify further opportunities for improvement and thus continuously optimise our processes.

We systematically and gradually develop our level of quality in the form of quality offensives. This means we are able to increase and improve our quality level in a structured and sustainable manner.

Incidentally, we manufacture exclusively in Austria. This also helps to keep quality under control. Our Russian production-plant in Kaluga assembles semi-finished MACO parts made in Austria, according to MACO's strict quality standards. Therefore we can say with pride that our products deserve the label "Made in Austria".

Our reliable product quality results in the function guarantees of our main product groups comprising RAIL SYSTEMS slide hardware, MULTI turn&tilt hardware, EMOTION window handles and PROTECT door locks. An overview of our door lock solutions is featured on pages 14 and 15 of this issue, followed by a detailed solution for the automatic door lock MACO PROTECT Z-TA and

reliable anti-burglary system PROTECT Z-TF, certified according to RC 2/RC 2 N.

The same underlying high quality concept forms the basis of our long-standing cooperation with Stöckel GmbH. We are delighted to introduce you to this family-run business.

A significant part of this TECHNOgram is devoted to the topic of ventilation. You can find out which solution options are provided by MACO and how your company can become a "wellness window" producer.

We are convinced that this TECHNOgram will give you essential information and ideas and we wish you an interesting read.


Ihr DI Ernst Mayer
Managing Director


Ihr Dipl.-Kfm. Jürgen Pratschke
Managing Director

INHALT

» Editorial	2
RAIL-SYSTEMS-Neuerungen	
» Volls Sortiment inkl. Stahlhakengetriebe	4-5
» Schmale Holz-Rahmenfriese	6-7
» Rahmenlose Fixverglasung	8-9
» Flächenbündig leichte Flügelführung	10-11
» Bodenbündiger Durchgang	12-13
PROTECT	
» Türschlossvielfalt	14-15
» Z-TA MODUL	16-17
» Zertifiziert einbruchhemmend mit dem Z-TF	18-19
» MULTI Dreh-Kipp-Beschläge für moderne Schwergewichte	20-21
» Verarbeiterstory Stöckel Fenster Türen Bausysteme	22-25
Lüftung	
» Steigendes Schimmelrisiko	26-27
» Lüftungskompetenz für den Fensterhersteller	28-29
» Kurz notiert	30-31

Scan the QR code and read TECHNOgram mobile on iPhone and iPad!





MACO RAIL-SYSTEMS

Lift&slide fittings

Lasting and effective construction.
Open up new dimensions.
Think bigger.

MACO RAIL SYSTEM lift&slide hardware opens up panoramas for your customers, completely free of obstacles.

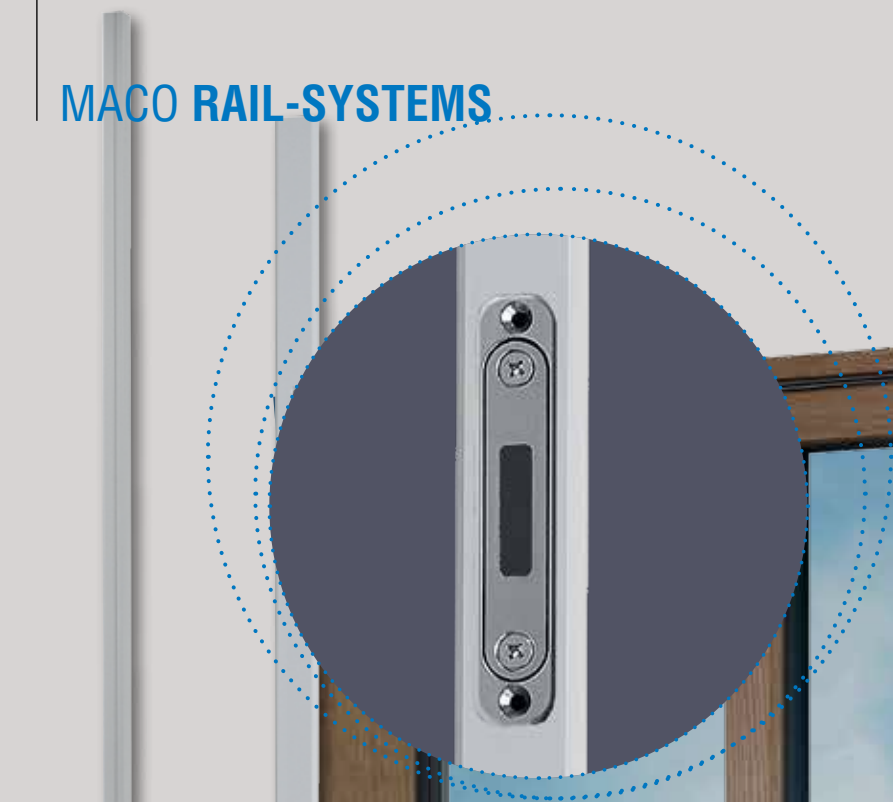
They are built to be lasting and effective as well as energy efficient, due to their best-in-class U values

They are optimally sealed and are insulated to the base side.

Of course, they are also suitable for use by persons with disabilities.

MACO RAIL SYSTEMS provide your customers with the ultimate in power, aesthetics and perfection for lift&slide doors.

MACO RAIL-SYSTEMS



I Steel hook mechanism - steel hook - flush striker plate. The striker plate can be milled into the timber by the door manufacturer or mounted in the factory-provided precise positioning recesses into PVC striker plates.

Qualitatively the best full range from a single source

The basis for your extended concept for success

Fashioned after the MACO standard gear, the MACO steel hooking lock mechanism with retractable locking hooks and flush striker plate is the evolutionary lock solution for modern lift&slide doors.

CELEBRATED MINIMALISM

The steel hook gear mechanism was especially designed without protruding elements along the vertical frame profiles. When the sliding door is open, there are no anaesthetic locking bolts to spoil the clean lines. The risk of snagging clothes or painfully catching your arm on a bolt is thereby a thing of the past. Instead of the conventional locking bolt, the system makes use of a movable steel hook which is only exposed during the closing operation. When the sash unit is open, the locking hooks are fully retracted into the lift-and-slide sash via the handle position.

In addition, the burglary security of the sliding door is improved. The RC-2 capability is given in relation to the individual element equipment.

OVERALL CONCEPT

The overall concept includes the MACO carriage technology, sealing rail and threshold. This means the fittings are suitable for moving sash weights up to 400 kg in timber and timber/aluminium.

If the hardware technology is to be subjected to adverse corrosion stress and strain, use the optional TRICOAT-PLUS hardware. This hardware is rust resistant, meaning fewer complains.

Handle in the locked position, locking hooks are extended

Increased daylight surface areas and glass-dependent optimal U values

Slim-framed lift&slide doors with up to 300 kg sash weight

As a door and window professional, you know that your customers are looking for maximum daylight and best U values for their large format design elements. These desires are met perfectly by the MACO lift&slide system for narrow timbre frames.

SLIM FRAMES

Minimised sash milling and special carriage recesses allow for extremely narrow sash widths starting at just 76 mm.

The advantage of a movable, narrow framed glass front is available to your customers with two drive gear options; both the MACO steel hook mechanism and MACO standard drive gear.

INGENIOUSLY SIMPLE INSTALLATION

The door fitter mills a pocket into the wood profile equal in position to the rollers. This pocket then houses a flush steel plate adapted in each case to the rollers. The rollers engage with the steel plates from below. The stabilised, greatly enlarged contact surface is able to bear the entire weight of the glass housed in the up to 300 kg lift&slide sash.

MAXIMUM TRANSPARENCY

The minimalistic frame creates a visually surprising lightweight impression, despite the heavy-duty large-scale elements. Increased daylight surface areas and glass-dependent optimal U values are benefits in terms of both comfort and energy balance.



Exterior view of the lift and slide door with aluminium cladding

In addition to narrow frame friezes, flameless fixed glazing serves to continue the trend towards the ultimate design goal of achieving large-area glazing with minimal framing.

Accommodated at the bottom, the fixed glazing is surrounded by a thermally insulated compensation profile. The profile in the length of 2500 mm is mounted directly to the MACO GRP threshold.

An aluminium profile covers the connection between the fixed glazing and compensation profile, clipped from the outside. The aluminium profile is available in silver and optionally also in a blank version, so that it can be coated to match the aluminium cover section. The profile can be cut to length from the standard dimensions of 2,500 and 5,000 mm.

MORE GLASS – GREATER ADVANTAGES

Due to the reduced cross section of the frame, the glass surface is increased. More glass benefits the thermal performance of the sliding door. This is because the heat transfer coefficient is obtained from the sum of the individual U values obtained from the frame and glazing. It is well known that glazing offers superior U values.

A reduced proportion of timbre and the extended glass front further

improves sound insulation properties. If the customer also decides for shatter-proof glass, he also enjoys better thermal and acoustic insulation and optimised protection against burglary.

GUARANTEED QUALITY

The complete RAIL SYSTEM means you are taking advantage of hardware technology developed and exclusively manufactured from a single source by MACO in Austria.

MACO RAIL SYSTEMS guarantee your customers the ultimate in durability, tangible benefits and the ultimate in operating convenience for lift&slide doors.

REQUEST MORE INFORMATION


Ask your MACO sales consultant about the „Barrier-free panorama“ lift&slide brochure. It summarises all of the new features in a graphically appealing, uncomplicated and visually stunning manner.

We would also be delighted to send you a brochure on request from:

technogramm@maco.at

Scan QR code to view microsite for the new lift&slide system. The URL is <http://panorama.maco.de>



Scan for more Info 

Maximum large-area thermal and acoustic insulation

Frameless fixed glazing

Narrow frames and fixed glazing on lift and slide doors are designed to achieve maximum viewing areas. This design approach consistently completes the concealed guide rail for sliding doors. This is because maximum viewing areas were also decisive for their development. Up until now, the upper guide rail was visible at the top. This functional part is now integrated into the upper frame.

CONCEALED DESIGN

The upper guide rail is mounted flush with the surface and is thus not visible for the user in the context of wood and wood-aluminium systems. It fits both the steel hook mechanism as well as the standard gear. The rail is available in lengths of 3,500, 5,000 and 6,500 mm respectively in both silver or brown.



Concealed upper guide track

SMOOTH RUNNING

The so-called sash guide unit serves to move the sliding door. It consists of a front and rear roller-guided guide section. The rollers support the smooth running of the system, even when used with very heavy double doors of 300 or 400 kg.

STANDARD BUFFER

The guide unit is supplemented by a buffer in the standard version. Its counterpart is the fully-concealed buffer stop. The buffer significantly reduces impact noise upon impact of the wood sash on the frame.

SELF POSITIONING OF SASH POSITION

The concealed stop position can be freely set in the guide rail. This means it can also be placed in any rail position behind the sash. As a result, the user can determine how far the sash slides open.

CONVENIENT LIMIT DAMPERS

The deluxe version features limit dampers instead of a buffer. These dampers do more than merely reducing closing noise.

CUSHIONED SASH CLOSURE PROTECTS THE BUILDING STRUCTURE

If the sliding sash is closed forcefully, the limit stop dampers slow down the sash considerably. This also prevents any risk of injury. In addition, the structure itself benefits from the reduction in speed of very heavy sash weights. This is because the forces from the sash are reduced, thereby protecting the surrounding masonry.

REPLACEABLE

Buffers and limit stop dampers can always be exchanged for one another. The limit stop dampers are available from end of October 2014.

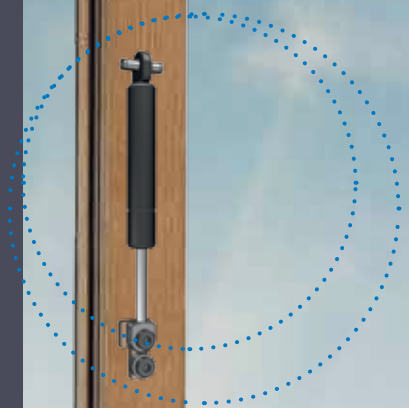
ENERGY-SAVING SASH INSTALLATION

Thanks to the integration of sash guiding parts and the guide rail, even a 400 kg sliding door can be installed with ease. Your fitters simply place the sash onto the threshold and tilt it into the frame. Subsequently, the upper guide unit is inserted into the guide rail as the roll slider engages with the rail. Then the guide unit is inserted and screwed into the prefabricated cut-out on the sash. That's all there is to it. The sash is fully installed.

CONTROLLED AND SMOOTH

This is the maxim which underlines the development of our gear damper system. The gear damper ensures comfortable handle operation especially for very heavy lift and slide doors. It is available for both the steel hook mechanism as well as the standard gear.

The drive gear damper reduces the resistance force and produces a soft, delayed return of the handle. The drive gear damper is invisible when installed and is ideal for retrofitting. In the interests of the user, the damper should be used for sash weights from 250 kg.



Drive gear damper



Convenient, cushioned movement protects buildings

Flush, light weight sash guidance

Barrier-free design is especially important for sliding doors. They open up the living space to the surrounding outdoor areas. Nobody wants to run the risk of stumbling or falling. Likewise, nobody wants to struggle to get prams or Bobby-Cars over the threshold. In addition to optimum thermal insulation, easy access is a central aspect of any sliding door solution.

ELEGANT ACCESS

MACO RAIL SYSTEMS features an integrated floor sill across the entire element, providing a visually elegant solution and an almost level transition between the indoor and outdoor floor. The silver-coloured sill is available in lengths of 2,500 and 5,000 mm.

AESTHETIC UPGRADE IN FIXED GLAZING

To ensure the uniform appearance of the entire lift&slide design at the bottom, the fixed sash is complemented by a clip-on sill panel. This means the tread plate and sill profile can be exchanged at any time.

OPTIMAL THRESHOLD INSULATION

The optimal compliment for the tread plate in terms of threshold insulation is the MACO GRP threshold. The threshold can be

combined with the 180 and 240 mm wide GRP floor threshold. The threshold is available in lengths from 3,000 to 9,000 mm. It can be applied to profile depths between 56 and 98 mm. This means door manufacturers can be completely independent of varying timber profiles.

Threshold widths greater than 240 mm are required where numerous sliding sashes are used. In this case, MACO extension profiles are available in dimensions 88 and 128 mm. Connection plates complete the GFRP threshold range. These can also be cut to length.

A thermal barrier is not required due to the excellent thermal insulating properties of GRP floor threshold. The U values offered by these extremely strong, lightweight, corrosion and chemical resistant floor thresholds can be further perfected with optional inserted profiles.

SUITABLE FOR THE HANDICAPPED

If the „running rail flat“ GRP floor threshold version is mounted in combination with the floor sill, the solution will correspond to the requirements of accessible design.

WEATHERPROOF FRAME AND SASH

An essential component for ensuring weather tightness of the door is provided by the MACO multi-chamber sealing strip. Its two opposing rail bodies are

mounted on the fixed and active sash sections. Each of the rail bodies accommodates one external sealing strip and one internal gasket. The first bulwark is the outer lining seal which keeps out driving rain and strong winds. The internal gasket provides the main seal. The rail can accommodate sash tolerances of +/- 3 mm.

The gasket track can be mounted vertically and horizontally on extremely narrow profiles. To achieve optimal thermal separation, the multi-chamber body is made of PVC. The rail is available in the colours silver, black and white.

Multi-chamber seal rail

Ground beam

Weatherproof and insulated all around

Considerate of all users: floor-level access with ground beam



PROTECT-door lock range for front doors, flats and side entrance doors

Secure at all levels

Feeling comfortable at home, enjoying everyday life with all its facets and the knowledge that you are safe, protected from unauthorized access. This basic human need is substantially determined by a sense of security. In this respect, the door lock plays a central role in terms of houses, flats and back doors.

There are also other important features that must be fulfilled by a modern multi-point locking system, such as sound and heat insulation and convenient operation.

Various PROTECT-lock types reflect the benefits in terms of burglary resistance as well as sound and heat insulation, features which have been consistently tailored to the end-user. Requirements in terms of storage and lock installation by the door manufacturer have also been considered.

MACO multi locking doors made of timber, PVC and aluminium complete the range.

BURGLAR-INHIBITING AND WEATHERPROOF

MACO-PROTECT door locks make forced entry a difficult job thanks to its key features, e.g. i.S. security roller pins, steel bolts, steel hooked latches and combinations of steel hooks and bolts. Security components such as the steel hook bolt combination can be used up to resistance class RC 3. Optimal sound and thermal protection is always ensured by the adjustable gasket compression.

3-LATCH LOCKS

The 3-latch door locks Z and Z-TA-TF offer sophisticated operating convenience and low installation costs.

In addition to gasket compression, the Z-TA also features au-

tomatic locking elements (two swivel hooks, two multifunction latches). The door is locked as soon as the door leaf engages with the frame. The lock elements work automatically, without key operation, immediately and are secured against counter pressure. The interlocking mechanism is triggered by magnets that are positioned on the frame side of the striker plate.

The Z-TA is available in two versions: as a Z-TA Automatic door unlocking per key or handle and as Z-TA Comfort with door unlocking by means of a motor triggered by the access control system MACO openDoor.

Due to the Z-TF the door panel is held by a cranked latch and two multifunction latches, without additional locking. The Z-TF can be locked by two or four iS safety roll cams and a solid locking bolt. A strong argument

for property outfitters is the Z-TF's compatibility with electric door openers in the striker plate. In this way, front doors of apartment buildings can be opened from every apartment at the touch of a button.

PROTECT MODULE

The modular door lock system PROTECT MODULE is always able to provide the right locking solution for single-sash and two-sashed entrance doors made of timber, PVC or aluminium up to door height of 1650 to 3100 mm. The MODULE range includes the handle-operated G-TS door lock, the Z-TS cylinder-operated door lock and the innovative Z-TA. All lock types come with burglar-inhibiting features, each with steel hooks or steel hook - bolt combinations.

The G-TS and Z-TS door lock types are also available with 4 i.S. security roller pins. The i.S. ver-

The MACO PROTECT C-TS door lock combines the handle and alternate operation in a lock case. It was developed for the UK market.

The MACO PROTECT G-TS door lock enables locking and unlocking via handle operation.



MACO PROTECT steel hook bolt combination for door locks to RC 3

MACO PROTECT Z-TS door lock with 4 I.S. security rolling cam

MACO PROTECT G-TA: handle operated door lock, balcony door lock and automatic door lock in one! This type of lock was developed for the French market.

sion has already proven its worth with respect to reliable burglary resistance.

Characteristic of the MODULE concept are the same lock box positions with variable upper latch point and uniform case milling. Moreover, the door locks can also be easily extended or shortened as required. This ensures full variability when adapting to varying door heights.

The additional ZS lock, a door restrictor or the lock-plate module with a magnetic pin (locking monitor) can be combined for other functions.

REGIONALLY-SPECIFIC DOOR LOCKS

Developed for the UK market, the C-TS door lock range combines the handle and alternate operating in a lock case, and provides security to RC 2. The G-TA Automatic complements the exi-

sting program for the French market.

SURFACE

Selected MACO multi locking systems are available in the MACO surfaces silver-look, TRI-COAT-PLUS and RAL powder coating (RAL 9006 and RAL 9007). The *Silver-look* surface finish itself offers an extremely high resistance to corrosion. *Silver-look* has been tested for 240 hours corrosion resistance in a salt spray test in accordance with the European standard EN 1670.

If the exposure to corrosion is likely to be higher (in direct local locations or in environments where chemically aggressive substances are present, for example), the use of TRICO-AT-PLUS coated door locks is recommended.

STRIKERS

The door lock program is roun-

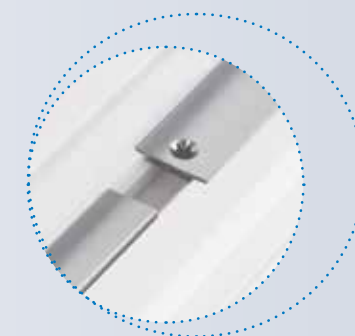
ded off by visually appealing striker plates and single piece door strikers for single and 2-sashed door systems.

ACCESS CONTROL SYSTEMS

The access control system MACO open door is available in

the „Transponder“ surface-mounted solution and in three integrated door panel designs: „Touch“, „Code“ and „Transponder-Plus“. The reading unit for the surface-mounted solution is attached to the outer wall near the door lock. The reading unit for the three integrated door panel types is directly embedded in the door sash. openDoor is protected against tampering by a control unit.

Very brief and easily comprehensible operating instructions are included to support rapid learning of the respective access control solution. The connection is made by simple connectors (Plug & Play), so that door manufacturers can easily install the system themselves.



The advantages of the MACO PROTECT top hat faceplates are legendary: 16-mm flat faceplate in 24-mm look. Challenges such as protruding lock routings and dirty edges in the gap between lock and profile have been solved perfectly.

Door lock MACO PROTECT Z-TA Comfort with motor

Door lock MACO PROTECT Z-TF with multifunction latches and I.S. safety roller cams

Modest or outstandingly high with the
Z-TA Automatic and Z-TA Comfort

Z-TA-MODULE for various door heights from 1,650 mm to 3,100 mm

The door lock concept PROTECT MODULE offers full flexibility in terms of the height spectrum of the multi-point locking system Z-TA, hand in hand with standardised assembly processes. As a door manufacturer, you can offer your customers one of the most powerful, automatic door locks on the market for each desired door size up to 3,100 mm sash height and take advantage of short installation times and minimal storage.

Usually door manufacturers require different lock versions for various door heights.

The PROTECT-MODULE concept makes this a thing of the past thanks to its faceplate technology, thereby significantly lowering the cost of production for each door. No matter how high or low the

single or 2-sashed front doors, flat or back doors are.

THREE Z-TA FACEPLATE MODULES

This modular lock concept is subdivided into three length versions for the automatic locking keyless 3-latch lock Z-TA with flat or U-faceplate:

- 1 possible shortening of the lock to 1,650 mm with 50-mm Z-TA shortening faceplate,
- 2 variable positioning of the upper locking point with the Z-TA shortening faceplate or extension with the 250 mm Z-TA extension faceplate
- 3 and a maximum sash height up to 3100 mm with lock extension using a 705 mm long Z-TA-intermediate faceplate.

In combination with the Z-TA-shortening or Z-TA extension faceplate, the position of the upper latch point can be flexibly adapted to the required door height and thus is always optimally positioned near the top end of the sash rebate.

ADDITIONAL LOCKING POINT

The intermediate faceplate has a special meaning in terms of functionality for the PROTECT Z-TA MODULE door lock solution. This is because the Z-TA intermediate faceplate includes an additional locking point with a multi-functional steel hook latch integrated as standard. This means that the Z-TA MODULE offers four locking points at its maximum door lock height: the main lock case with cranked latch and locking bolt and three auxiliary locks, each equipped with multi-functional latch and steel hooks.

YOUR BENEFIT

As a door manufacturer, you enjoy full flexibility in terms of equipping any sash rebate height with one of the most powerful door locks on the market. The Z-TA offers your customers optimum operating convenience in any door height, and full keyless operation with Z-TA Comfort. Thanks to the Z-TA faceplate module, you serve these needs without excessive storage requirements, as well as ease of assembly – both for the Z-TA Automatic and Z-TA Comfort with motor. The range is fully complemented by the door lock program MACO PROTECT Z-TA MODULE with striker plates and strike plate rails for single 2-sashed door systems.





For variable door heights with the automatic keyless locking door lock Z-TA Automatic and the Z-TA Comfort with motor for additional keyless opening

Optimal security in accordance with security classes RC 2 and RC 2 N can be achieved for front doors, flats and also back doors using MACO PROTECT Z-TF cylinder-actuated 3-latch door locks with steel bolts. Its standardised resistance time of three minutes for a locked single sash door against tools such as screwdrivers, pliers and wedges is certified.

Experts agree: If perpetrators cannot gain access a building within two to three minutes, they abort their attempt. It is indisputable that most burglaries in urban areas take place during the day when residents are assumed to be absent. Especially back doors are at risk from perpetrators as these are frequently targeted as easy-access options. This means the security of all entrance doors is important.

MECHANICAL BURGLARY-PROTECTION

The two steel bolts of the Z-TF in addition to the two multi-functional latches, the 20 mm wide exiting locking bolt and the serial cranked latch provide the primary assurance of mechanical security for front doors. In terms of the frame, the RC 2-certified single piece door striker with elegant U-profile guarantees resistance.

The cylinder actuated 3-latch door lock MACO PROTECT Z-TF with steel bolt security, optimal weatherproofing and flexible processing in all frame materials for sash heights 1800 - 2400 mm represents functionally consistent perfection.

INSURMOUNTABLE

The two high-strength steel bolts form an insurmountable barrier. Their special design and the resistive force of the material makes the bolts so robust that they can withstand almost any type of burglar's tool. The striker plate is lined with steel plates and the steel bolts ensure reliable resistance. In addition, the steel bolts are secured

at their final positions to prevent them from being pushed back.

OPTIMAL WEATHERPROOFING

Two additional multifunctional latches complement the standard centre-fitted cranked latch and locking bolt. Immediately after the light, and above all quiet closing of the door, the three latches drop quickly into their respective strikers and hold the door panel firmly against the seal over the entire length of the sash. The latches are integrated into all Z-TF door locks at no additional cost.

SMALL LEVER – GREAT SILENCE

In other commercially available lock solutions, the sloped surfaces of the latch drop directly into the striker, leading to a considerable generation of noise. This means it is not possible to close the door quietly. The MACO Z-TF uses a small lever to gradually and gently pull each of the three latches back before they slide quietly back into the striker.

THERMAL AND NOISE PROTECTION

Since the latches achieve extremely high clamping pressure, these three points of the Z-TF make the door far more weatherproof than a conventional 1-point lock: Noise and thermal insulation is consistently assured once the latches slide into place. Heating energy remains inside, noise cannot penetrate from the outside and driving rain has no chance. Simple adjustment of the latch striker enables versatile regulation of the clamping pressure on the door panel.

ONE DOOR LOCK – EVERY FRAME MATERIAL

The multi-talented Z-TF can be combined with steel bolts in aluminium doors and steel door frames just as easily as with timber and PVC door systems. The Z-TF can be used on any side - either left or right. A logistically relevant side effect of this variability is the reduced inventory costs.



Multifunctional latch

Steel bolts



The MACO PROTECT Z-TF cylinder-actuated 3-latch door lock with steel bolts ensures reliable mechanical burglary resistance according to RC 2 and RC 2 N.

With the Z-TF securely behind lock & dead-bolt

With 6 holding points
Certified burglar-resistance
 according to RC 2 and RC 2 N

- For balcony doors and large format windows made of timber and PVC
- Up to 180 kg sash weight and 3.6 m² format size
- Maximum sash rebate width 1,800 mm
- Maximum sash rebate height 2800 mm
- Integrated anti-slam device as standard
- Optional scissor stay restrictor
- No milling in the frame
- Burglary resistance up to RC 2
- Listed in CE-fix and CE plus
- Corner support, scissors stay hinge and rebated scissor stay in optional RAL colours
- Optionally available in extremely corrosion-resistant TRICOAT-PLUS

MACO MULTI MAMMUT



Turn and tilt up to 180 kg

Certified* hardware technology for modern heavy-duty applications

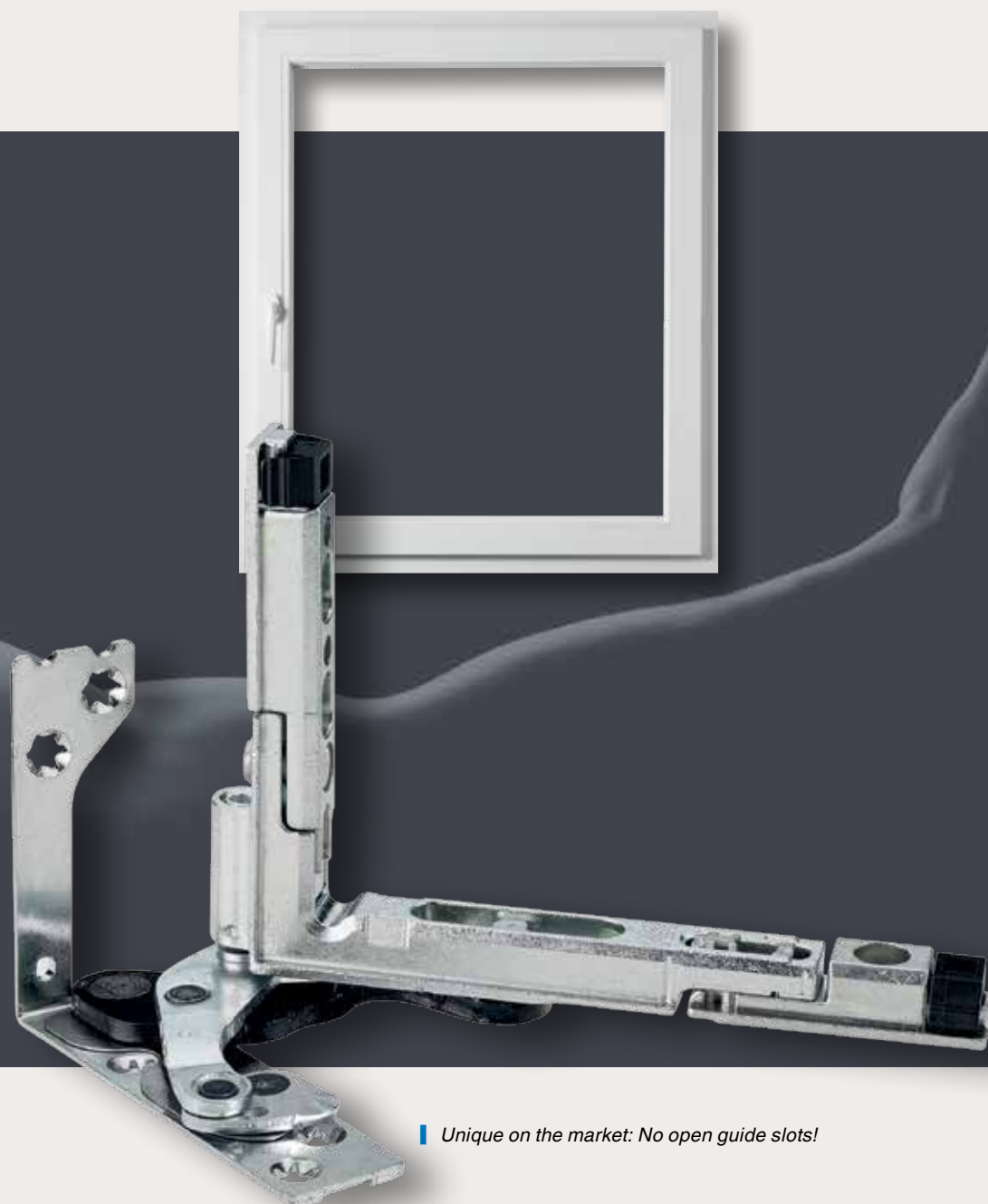
The impressive thermal performance of modern glazing and frame profiles has greatly expanded the scope for increasing the total window area. Large-scale turn&tilt floodlight windows in XL format are available to building owners and architects alike. Energy losses through modern windows and doors are demonstrably low.

Modern large-scale and multi-glazed elements as of 2014 are inevitably heavier than the single-glazed, simply-framed lightweights from the 1960s to late 1980s. In terms of movement and fastening

* According to DIN EN ISO/IEC 17025 Accredited bodies; PIV testing institute for locks and hardware Velbert, ift Rosenheim

- Face-fitted or flush, fully concealed
- For tilt&turn windows and tilt-first up to 130 kg sash weight
- For balcony doors with tilt&turn and tilt-first up to 150 kg sash weight
- No need for additional load distribution
- No breaks in the seals
- No open guide slots
- Burglary resistance up to RC 2
- Optionally with caps
- Listed in CE-fix and CE plus
- Optionally available in extremely corrosion-resistant TRICOAT-PLUS

MACO MULTI POWER



Unique on the market: No open guide slots!

technology, this presents a weighty challenge that has to be mastered. This requires the appropriate window hardware.

FAR MORE THAN MERE HEAVYWEIGHT SUPPORT

The hardware has to do more than just support the exorbitant weight of the windows and balcony doors. In addition, it must ensure durable turn&tilt and turn-only movement and also contribute to reliable burglar resistance. There are surface mounted and concealed bearing types. A concealed mounted means that the hardware does not form a thermal bridge, which

thus contributes to optimum thermal insulation.

As a finishing touch the hardware – both surface-mounted and concealed – prevents corrosion throughout the lifetime of the window.

If the hardware components can be easily installed, due to simple integration into the frame and sash or even as part of a fully automated process, and the system forms part of a heavy-duty hardware range with a variety of additional features, then all requirements are met, both for the window manu-

facturer and the window user.

MULTI POWER & MULTI MAMMUT

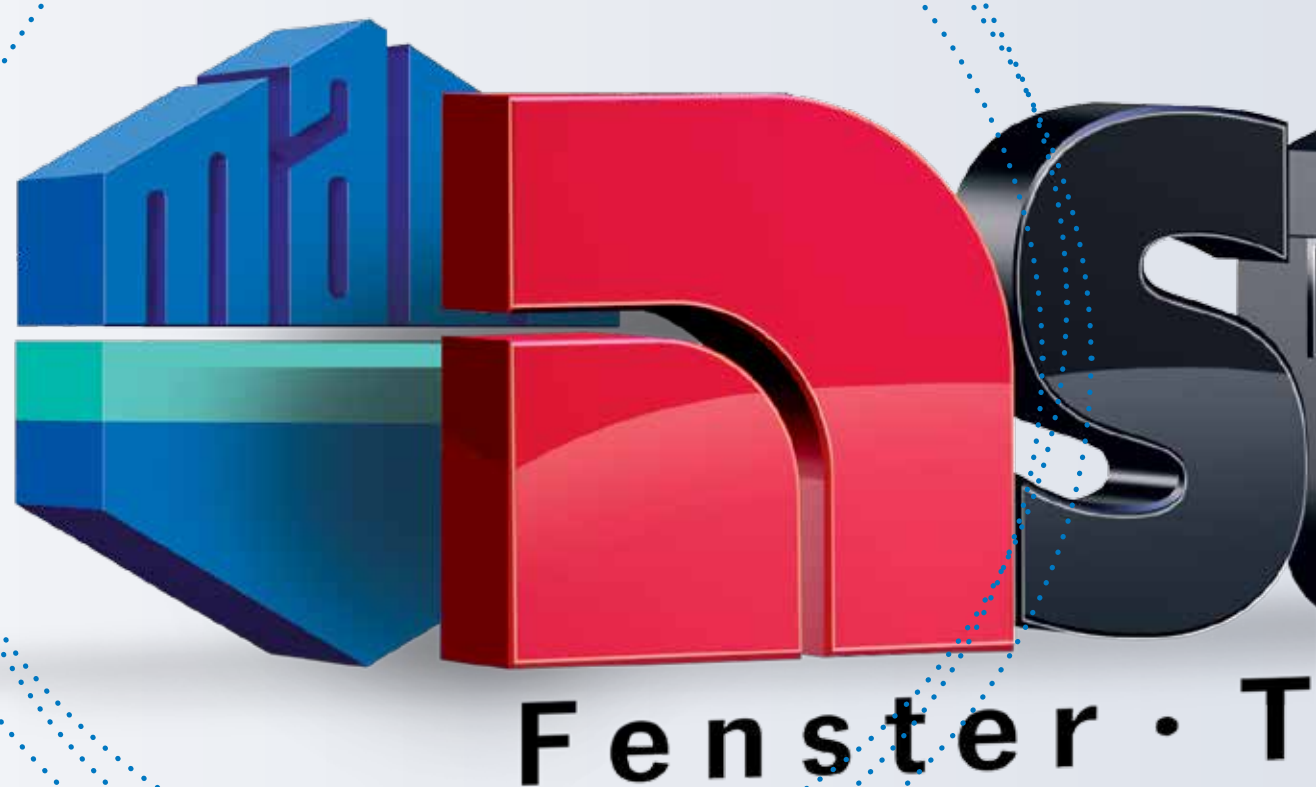
MACO MULTI POWER MULTI MAMMUT turn&tilt hardware offers you one of the best hardware solutions on the market for meeting the featured requirements. Both tilt&turn bearing types are part of the MULTI MATIC hardware system. The system can be individually customised to the respective scope of services— in terms of weight class, required window functions, aesthetics and your window manufacturing processes.

SYSTEMATIC HARDWARE PERFORMANCE

The sophisticated force-fitting and form-fitting coupling systems utilised by MULTIMATIC guarantees a quick and easy production, from manual assembly through semi-automated production to unmanned full automation. The compatible hardware components can be applied flexibly to all special formats and special requests. The MULTI MATIC system concept is rounded off by individual logistics solutions for the fitting site and the MACO WIN software solution.

STÖCKEL: Great prospects and the best quality

40 years of intensive partnership with MACO





■ Company founder Günther Stöckel (centre) with his sons Reiner (left), Managing Director, and Uwe, Managing Director and Head of profile extrusion. Photograph: STÖCKEL

stöckel

üren • Bausysteme

Partners can grow together firmly over a period of 40 years. One can rely on the other, trust each other, develop and become mutually stronger – this also applies to the partnership between STÖCKEL and MACO. As is so often the case, the initial contact occurred by chance.

The former MACO field service representative Josef Mösl undertook a multi-day sales trip through Northern Germany. On

his return journey through the Emsland district he came across the then small carpentry business of STÖCKEL in Vechtel. He rang the bell in order to deliver a few leaflets and his business card. Company founder Günther Stöckel had actually closed for the day, however, he was interested to take an immediate look at the turn&tilt hardware from the Austrian provider. So we went back to the workshop and the hardware was presented to him. Günther Stöckel

was immediately impressed by the MACO hardware. Quickly, the two reached an agreement – and the foundation for a successful cooperation was laid, which was to prove to be of mutual benefit.

MUTUAL ATTENTION TO DETAIL

The demand for windows increased enormously. All windows that have been produced over the past 40 years at STÖCKEL have been equipped

with the turn&tilt hardware from Salzburg. Partnership in this context also means that products can be improved together. „Many detailed changes to the hardware have emerged in recent years because our customers gave us suggestions of how to further optimise a great product. In MACO we always found a sympathetic ear. In most cases, our sales people immediately got together with the product developers and quickly worked out a corresponding so-

lution. Moreover, the new item master data is always available to us in a timely and well-processed manner. It is this commitment that makes a genuine partnership," says managing director Reiner Stöckel.

IN-HOUSE PROFILE MANUFACTURING

The past few years have been characterised by strong growth at STÖCKEL. In the late 1960s as the demand for PVC windows increased, STÖCKEL also began developing this material for themselves. However, the single-chamber profiles available at the time didn't meet Günther Stöckel's quality requirements. Without further ado, the entrepreneur himself started to produce profiles. With a newly acquired plastic extrusion machine, the „TwinStep“ window system was produced from the early 1970s, a three-chamber system with centre seal. The profile was first introduced in 1974 at the Dusseldorf plastics trade fair. The system immediately found an enormous resonance at the fair. Today STÖCKEL has 12 extruders, which can produce up to 30 million metres of various profiles per year.

ENTRY IN THE INSULATION GLAZING INDUSTRY

During the huge construction boom at the end of the 1970s, many manufacturers of insulated glass had to contend with supply shortages, as production capacities were completely overloaded. This meant that STÖCKEL's promised delivery dates for windows could not be met. This of course literally led to sleepless nights for Günther Stöckel. As a result, he started to consider the option of manufacturing insulated glass in-house. At the beginning of the 1980s a corresponding production facility was acquired. Since then, all insulated glass has been supplied to Vechtel in-house, thus ensuring greater independence.

INDEPENDENCE

An important maxim of STÖCKEL's philosophy is to do everything themselves in order to reduce third-party dependence as far as possible.

„Every window, no matter how individual its design, is manufactured completely in-house. This means we can always guarantee that our high quality standards are consistently met. Of

course, we further emphasise this claim by means of our own tool making and delivery with our own trucks," continues Reiner Stöckel. However, despite this high level of vertical integration, there are nevertheless products that are produced by partners. This is the case with MACO hardware. From the outset, STÖCKEL utilised MACO hardware for both their PVC and aluminium windows as well as their turn&tilt timber window range. The matching window handles also come from Salzburg. „We are especially pleased that STÖCKEL has continued to utilise our PROTECT door locks for the past two years," concludes MACO sales manager Helmut Lang, by way of summarising the hardware portfolio. The door locks are used in approximately 5,000 to 6,000 high-quality STÖCKEL front doors manufactured in Vechtel.

VARIOUS SALES STRUCTURES

STÖCKEL utilises a two-fold sales structure. On the one hand, private customers are supplied directly in a radius of about 50 kilometres around the site. This is due to the tradition of the company, since many cu-

stomers came and come from the highly agricultural region. Seven employees are responsible for this market area. On the other hand, STÖCKEL also supplies its products to carpentry and joinery firms in northern and central Germany. In addition, window manufacturers who only source profiles form part of the clientèle. This area is also served by a team comprising seven field staff.

ONGOING INVESTMENTS

After the production order is received, manufacture in the plastics sector takes approximately two to four weeks, with timber or aluminium windows it takes four to five weeks. In order to further optimise processes, STÖCKEL regularly invests in production, logistics and in the improvement of machining systems. In the past year alone, STÖCKEL has invested some 5 million euros in new machinery for plastics production and in a processing line for timber windows, as well as a new machining centre for aluminium profiles.

SUPPORT OF TRADING PARTNERS





STÖCKEL uses a total of 12 extruders for PVC manufacturing.



Good cooperation: STÖCKEL CEO Reiner Stöckel (right) and MACO sales manager Helmut Lang.



Installation of MACO fittings.



Helmut Lang: „We have a now 40-year partnership in place with STÖCKEL. It is only through an intensive cooperation with STÖCKEL that it was possible for MACO hardware to become synonymous with quality in Northern Germany.“



A total of 5 million euros was invested by STÖCKEL during the past few months - including in a new machining centre for aluminium profiles.



STÖCKEL produces almost everything themselves - even the right tools.

Reiner Stöckel: „As a full-range retailer which offers its customers everything from a single source, we are unique in Germany, in this constellation. MACO is and remains our most important supplier for hardware, because without MACO we would not have achieved the scope and market significance which we have today.“

Helmut Lang: „STÖCKEL and MACO are two family-run businesses which share similar values. This is also a reason for the long-standing and successful partnership.“



A glimpse into PVC window production.



View a modern building element showroom.

Of course, price is not the only factor in terms of sales. High customer retention is equally a guarantee for success as is the high quality of the products. Quotation software with associated training is made available to facilitate the work of the trading partners. In addition, STÖCKEL makes a mobile trade fair stand available for use by customers at in-house exhibitions. Regular sales seminars and product training serves to keep participants up to date. Trading partners are also kept informed regarding promotions. For example, STÖCKEL has recently begun to feature banner adver-

tising from Google in order to make prospective customers aware of the products. Direct communication with the customer and understanding his needs are the A and O, and thus the key factor for success. „Many of our customers are also part of this long and successful relationship. Therefore, we are convinced that we are well positioned for the coming years, explains Reiner Stöckel.

„WE CONTINUE TO CONSIDER OURSELVES TO BE A CRAFTS ENTERPRISE“

The STÖCKEL success story began in May 1957. At that time,

made Günther Stöckel set up as a self-employed master carpenter in his parents' house. With hard work and a high standard of quality, the small carpentry firm quickly grew into a company that could handle large orders. The breakthrough came in 1974 as the TwinStep PVC window system was developed with in-house profile extrusion. Continuous expansion of production was undertaken to the current level of 45,000 square meters of covered area and a steady expansion of the range enabled STÖCKEL to develop into a full-range nationwide manufacturer of windows, front doors, conser-

vatories and canopy systems. Around 250 people are currently employed at the site in Vechtel. Although STÖCKEL is a medium-sized industrial company today, they still consider themselves to be a crafts enterprise for which personal contact with customers remains the priority.



<http://www.stoeckel-fenster.de>

No chance for mould!

Enhanced minimum ventilation for moisture protection with the MACO window rebate valve.



We explain:

Increasing risk of mould despite warm summer days

It is known that the risk of condensation formation increases during the cold season. This condensate arises especially at the cold corners of the window pane, which collects as fog and water droplets on the pane. This condensate formation is more clearly observed after showering and cooking, but also in the morning on bedroom windows. The cause is a well-known physical principle: The surface temperature is below the dew point.

However, the reason why warm summer weather also provides ideal conditions for moisture and mould growth is a mystery to many people.

TEMPERATURE GRADIENT BETWEEN LIVING ROOM AND BASEMENT

The actual basic idea is obvious. Beautiful, warm, sunny weather is always associated with dry air. Hot days are therefore very likely to be used to ventilate the living area and basement. Unfortunately, this approach is rarely successful. This is due to the fact that especially in the summer, the temperature gradient between the living area and the basement is very great. While one attempts to ventilate the living room in bright sunlight to cool down, the ventilation causes additional moisture to collect in the relatively cold basement.

SUMMER CONFLICT

Careless airing of rooms with cold components and lower room temperatures can cause them to become even more humid than they were before. The consequences of prolonged moisture, coupled with spores in the ambient air are mostly a musty smell and reduction of air quality, which can be triggers for allergies or even mould growth. Despite these negative consequences from incorrect airing, a minimum level of ventilation must always be guaranteed in order to compensate for the resulting moisture created by daily use.

EXCESSIVE HUMIDITY IS ...

... a serious problem for any li-

ving space. But how does this occur? Absolutely dry air does not occur in the atmosphere. Air is a mixture of many gases, vapours and impurities. Large amounts of moisture are absorbed into the air from lakes and the sea in the form of water vapour. These are then transported over long distances and return to the ground by way of precipitation. The biggest factors influencing the air we breathe are always determined by the interaction of temperature and humidity. Therefore insufficient or excessive humidity will affect the feeling of comfort. A relative humidity between 40 and 50% is perceived as ideal for most people.

DIN 1946-6

Generally speaking, it makes sense ensure that the living area has healthy indoor air and to remove moisture regularly. The living area has to be protected from moisture damage all year round. This is ensured by a permanent, user-independent minimum ventilation. Because of the frequency of moisture damage, especially in refurbishments and the associated potential health impacts, the legislature has already responded to this problem with the DIN 1946-6 directive. The German regulation refers to residential ventilation.

KEEP AN EYE ON BASEMENTS!

Especially during the summer it's worth taking a look in the basement. This is because the warm, humid air from residential areas or the penetration of warmer outside air tends to lead to damp cellars. As shown graphically, especially during the summer due to the warm temperatures, moisture saturation can lead to critical conditions in basements in combination with high relative air moisture. Therefore, it is always worthwhile to monitor the relative humidity.

5 TIPS FOR PREVENTING MOULD FORMATION

A family of four produces up to twelve litres of water a day – resulting from, among other things, showering, cooking, drying clothes and normal breathing. Following a few simple rules can serve to dissipate moisture peaks from the home. As a result, mould has no chance to form in the living area. The duration of ventilation always depends on the use of living space and the weather.

- Provide constant, user-independent ventilation for moisture protection! Additional ventilation when you are home through cross ventilation; 3 to 4 times a day for 5 to 10 minutes. However, merely tilting the window is not sufficient
- Do not allow the temperature to drop constantly below 20°C in living rooms, 21°C in the bathroom, and 18°C in the bedroom.
- Keep bathroom doors closed when showering and bathing or when drying wet clothes. Allow for good ventilation during drying process or afterwards.
- Close doors between heated and unheated rooms. Don't ventilate the basement during the summer or limit ventilation (outdoor temperature min. 5 ° C cooler than cellar temperature). Keep the door between the living room and basement area closed on warm summer days. Keep the windows closed in the basement.
- Intensively heat and ventilate new constructions and renovation projects to remove excess moisture. Plan your ventilation concept!

Digression Saturation humidity

The easiest way to check humidity and temperature is with a combined hygro-thermometer.

BASIC RULES

A simple basic rule can help. Only ventilate manually when the outside temperature is at least five degrees Celsius below the basement temperature! For the much larger and more sensitive area of the living room MACO has created a very effective and innovative solution with the window rebate valve.

MACO WINDOW REBATE VALVE FOR LIVING SPACES

As a user-independent minimum ventilation option for moisture protection, the MACO window rebate valve ensures a minimal, constant airflow which keeps the living room climate at a constant level.

Cooking, washing laundry or showering can cause a short term spike in relative humidity in the home. This moisture spikes must be removed immediately by briefly airing. Nevertheless, towels, carpets, upholstered fur-

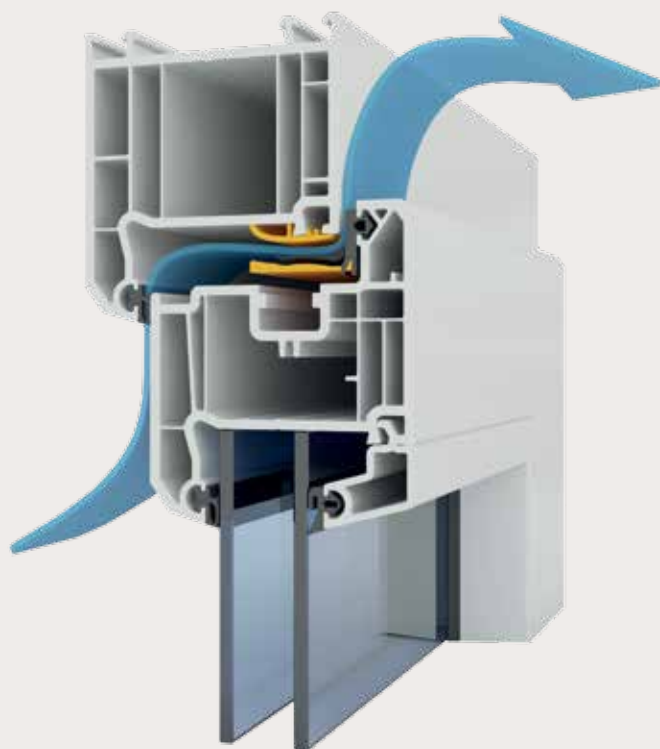
niture, plants, etc. permanently store a part of this moisture. This is then slowly released into the air. Thus, humidity also increases when nobody is in the apartment – in other words, when moisture is not being added as a result of use.

PERMANENT MINIMUM VENTILATION FOR MOISTURE PROTECTION

The MACO window rebate valve enables residual moisture created by utilisation of the living space to be reliably removed without user intervention and continuously renewed by fresh air from the outside. The permanent minimum ventilation for moisture protection according to DIN 1946-6 is thereby guaranteed.

In addition, the window rebate valve also stops excessive cold, dry outside air from flowing in, thanks to its aerodynamic mode of operation.

The window rebate valve be installed into the rebate area without additional milling in just a few simple steps at any time.



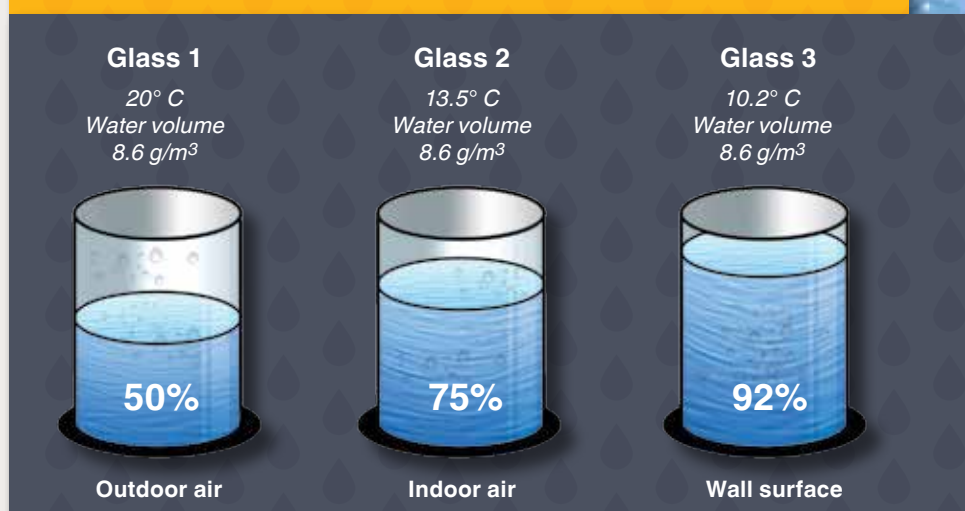
The air flowing through the window rebate valve into the room is reduced to a minimum upwards of a defined wind speed. The minimum ventilation for moisture protection is always maintained. Thanks to the integrated wind shock protection system, the user is never exposed to unpleasant draughts

The colder the air, the less moisture can be stored. To illustrate this clearly, we compare the interaction between temperature and relative humidity based on three equally large glasses of water. In each glass is the same amount of water, amounting to 8.6 g/m^3 .

The relative humidity in glass 1 is 50% = ideal for comfort.

The relative humidity in the Glass 2 is 75% = over longer periods of time critical risk of mould formation.

The relative humidity in the glass 3 is 92% = ideal conditions for mould growth, water vapour begins to drip.



Dry air absorbs only a certain amount of moisture at certain temperatures and pressures. Per cubic meter of air this is only a few grams of water.

The lower the temperature is, the less water is absorbed by the air. The maximum absorption of moisture is referred to as saturation. Therefore, saturation is equal to 100% relative humidity. Supersaturation is observed in the form of water vapour, fog or condensation.

In glass 1 the saturation is 17.2 g/m^3 . However, if the cubic meter of air contained just 8.6 g/m^3 of water vapour, this corresponds to 50% [relative humidity] of the maximum capacity.

The colder the air, the less moisture can be stored. Therefore, a temperature drop from warm to cold air always leads to higher air moisture.

If warm outside air merges with a cooler interior temperature in the basement area (in this case glass 2) with assumed 13.5°C , the humidity automatically increases from 50% to 75% [relative humidity].

Because the outer walls in the basement area are usually under room temperature, a third glass is added. The coolest wall surface in the room is assumed to have a temperature of 10.2°C . Thus, the air moisture rises to 92% relative humidity.

Ventilation expertise for window manufacturers

Your transition from experienced window fabricator to wellness window supplier

Humans can survive for only three minutes without air. This makes air one of the most important substances known to man. In industrialized societies, people spend up to 90 percent of their time indoors. Good indoor air quality therefore becomes a decisive factor for well-being and health. At the same time, it also protects the structure of the building.

Energy-efficient design requires airtight building shells. Only in this way, is it possible to utilise the considerable potential available for energy savings. The new challenge entails ensuring hygiene, well-being and, last but not least, the health of the occupants, using intelligent ventilation systems.

EXPERTISE TAILORED TO WINDOW CONSTRUCTION

This is where the MACO ventilation competence centre comes into its own. Window manufacturers learn all the essentials relating to ventilation, especially adapted to windows by way of seminars, workshops and discussions. For example, topics such as the effects of moisture damage, con-

densation and mould on health and the value of property are covered. Other important aspects are liability risks and fulfilling standards for refurbishment and new construction.

PROFESSIONALLY WELL-FOUNDED VENTILATION DESIGN

The ventilation competence centre team under the direction of Gerald Harml comprises a total of four employees. They combine different areas of expertise, from product development to expert consultancy. Gerald Harml has completed his education as an ift specialist in ventilation design. This means the competence centre is qualified for the design of ventilation measures. Ventilation concepts can be created for system categories including ventilation and moisture protection according to DIN 1946-6 both for new construction and modernisation projects.

VENTILATION SOFTWARE

For new or modernised buildings with modifications to the ventilation systems, it is always necessary to produce a ventila-

tion concept - regardless of the benefits to be expected. The software tool utilised by the ventilation competence centre determines the applicable requirements and helps to establish the appropriate measures. The tool has been developed and implemented in co-operation with experts and professors for structural physics. It is based on DIN 1946-6 "Residential ventilation" as well as DIN 18017-3 "Ventilation for rooms without windows". The software makes it possible to determine and realise the required individual ventilation and ventilation measures.

FROM CRAFTSMAN TO WELLNESS SUPPLIER

Healthy room ventilation is essential for the well-being of residents. MACO ventilation technology, such as the concealed window rebate valve enables you to offer your customers a sustainably healthy room climate, even when the residents are absent. This means you are not only a technically adept window manufacturer and energy specialist for building openings, but also a supplier of wellness windows.



The quickest way to get ventilation information: Scan the QR code to obtain more information on the topic of ventilation as well as contact options for the MACO ventilation competence centre.



MACO VENTILATION COMPETENCE CENTRE



MACO ventilation competence centre team, from left: Gerald HarmI, Manfred Grünbart, Dominik Graml, Ludwig Lang

VENTILATION COMPETENCE CENTRE SERVICES

- Comprehensive ventilation knowledge for the window industry
- Special knowledge relating to the damage that moisture can cause
- Health risk: mould, radon, CO₂, CO
- High-energy, air-tight renovation and new requirements for minimum ventilation
- Variety of ventilation scenarios
- Documentation and information on how to ventilate properly
- Software applications for determining the air volume
- Knowledge of the relevant standards and directives
- Product development using state-of-the-art flow simulation software
- Special test equipment for window units
- Special test equipment for installed MACO window rebate valves in window units
- Specifications and check lists for product handover

MACO PRO-DOOR

Door hinge T100 R for 120 kg sash weight

The partially concealed T100 R hung sash is recommend as a high-quality solution for representative PVC entrance doors with sash weights up to 120 kg. When assembled, only the hung sash of the door hinge remains visible. The aluminium body of the T100 R can be refined with a number of high-quality anodised surfaces. Frame and sash are installed together. The hinge is screwed directly into the Eurogroove and steel reinforcement.

The T100 R is part of the MACO PRO-DOOR hinge product family. These hinges are protected against the consequences of misuse: the patented ball bearing in

the axle pin. This unique technology prevents the door sash from dropping. The extremely stable sockets in the frames of all PRO-DOOR hinges are made of material that is highly resistant to creep-pressure. The fibre-reinforced plastic of the socket and the steel axis pin form a functional unit that operates without the need for extra maintenance.

Like all MACO door hinges, the T100 R can also be adjusted in three dimensions and adjusted while hung. The hinge not only withstands sinking but also other signs of the times, such as potential material deformation caused by differences in temperature.



120 kg

Maximum load capacity 120 kg

200.000

Continuous function test: 200,000 unlocking and locking cycles



MACO EMOTION

A clear „click“ for luck

The Rhapsody window handle is one of three models to form part of the MACO EMOTION handle range. Rhapsody blends full-fledged design with a pleasant look and feel. All details of function and form are matched perfectly. It's economic design opens the door to a unique kind of charm.

In response to customer demand, the handle now features an additional, exclusively acoustic design

MACO anniversary

20 years MACO Produktions GmbH Trieben

The Trieben production-plant is one of the three Austrian production plants operated by the MACO group of companies. In 1994 the site started out with just 41 employees. A total of 11 stages of construction and investment in the multi-digit million range allowed the production-plant to expand to a production area of 40,000 sqm today. With 273 million manufactured goods produced annually, 1.4 billion semi-finished goods and 30,000 pallet spaces in the high-bay warehouse, MACO Trieben is the logistics hub of the MACO Group, providing an average of around 1,000 employees with a secure workplace. In doing so, the site has become one of the largest employers and training providers in the Upper Styria region.

The production location celebrated its 20 year anniversary during June and July this year with a big celebration for employees and long-time partners of the company, an open day and factory tours for those interested.

In addition to the Trieben production-plant, the MACO group also operates Austrian production sites in Salzburg Mauterndorf / Lungau, an assembly plant in Kaluga, Rus-

sia, and 16 international sales subsidiaries. Salzburg is the headquarters of the family-owned company founded in 1947 as Mayer & Co Beschläge GmbH – MACO.



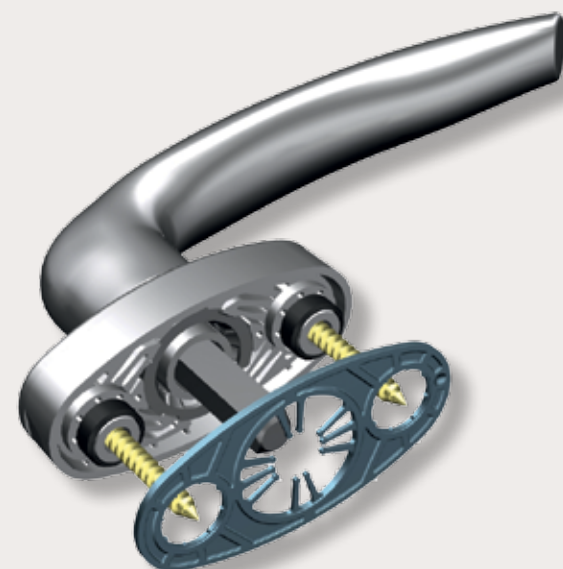
Logistics hub of the MACO Group and secure workplace for 1,000 employees: the MACO Trieben production plant, established in 1994.

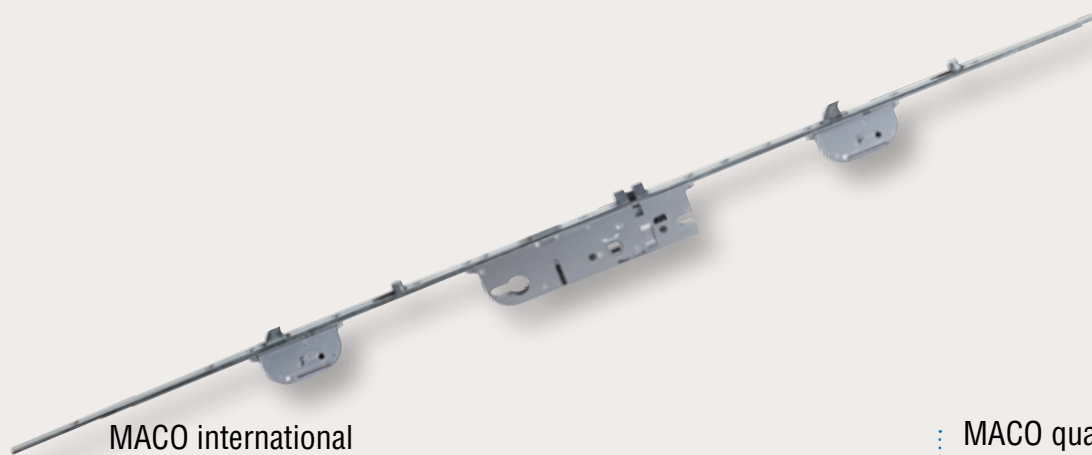


MACO CEO KR DI Ernst Mayer celebrated the 20-year anniversary of the Trieben production location on 5 July 2014 with employees and guests. Pictured left Provincial Governor of Styria, Waltraud Klasnic.

element: handle operation is now accompanied by a clicking sound. The click audibly accompanies the movement into each handle position; both when opening and closing the window.

This is realised by a noise-producing „movement indicator“ by the titanium or white coloured acoustic spacer bar. It is screwed in place during assembly of the window handle.





MACO international

Trade fair review FIT 2014

The British subsidiary MACO Door and Window Hardware (UK) Ltd, based in Sittingbourne sums up a successful participation at the „FIT Show“. The Fabricator Installer Trade (FIT) -Show is the UK's leading trade fair for the window, door and conservatory industry. More than 5000 visitors attended the event from 10 and 12 June this year at the International Centre, Telford. As one of a total of 170 exhibitors, MACO UK was able to impressively demonstrate its expertise and innovation in the field of building hardware, with special focus on door lock solutions.

The spearhead of MACO's door lock technology in the UK is the C-TS combination door lock, which has been especially developed for this market. It combines two modes of operation: The split spindle incorporates the handle and alternate operation in the lock casing. The C-TS ensures maximum security to RC 2 according to EN 1627-1630 and PAS24. The burglary resistance is optimally supported by the fabricated steel locking hook and solid steel striker plates. The C-TS is extremely comfortable to use thanks to the optimised design of the lock case. The locking mechanism is actu-

ated directly, so the lock operates smoothly and closes silently.

TOM, MACO's Technical Online Catalogue was presented as an example of absolute customer orientation and quality in terms of sales support services. Its user-friendly navigation makes the catalogue a truly self-explanatory online experience. Current MACO hardware data is still being added successively. This will soon be made available to users by way of periodic updates. Powerful search and filter features, such as full-text search and scalability of market and language variants enables users to quickly search for and obtain up-to-date hardware information.



MACO quality

ift certificate of conformity according to QM 328

The MACO MULTI TREND and MULTIMATIC turn-only and turn&tilt hardware again received the ift certificate of conformity according to QM 328 in May this year. In doing so, the standard silver-look surface was certified with class 5 „exceptional resistance“ in terms of its corrosion performance.

The certification program QM 328 provided by the Institute for Window Technology (ift) Rosenheim defines the current highest and most extensive requirements for turn-only and turn&tilt hardware. Among other things, long-term functioning and corrosion resistance are examined as part of the demanding test. The basis for certification according to QM 328 are the European standards EN 13126-8 (continuous performance test of turn-only and turn&tilt hardware) and EN 1191 (long term performance of windows and doors). This defines a uniform standard for the usability of hardware in Europe that still exceeds the requirements of the Euro-standard.

Re-certification by ift confirms once more the traditionally high MACO product quality. As a window manufacturer, you rely

not only on the tested MACO product quality. Also the replacement of hardware in accordance with product standard EN 14351-1 tested systems is facilitated. For example, if you undertake a hardware change to MACO on a system already initially tested by a notified body, the elements must not be subjected to re-examination if you choose QM-328 certified MACO turn&tilt hardware.



MACO education

Professionals of tomorrow



25 young people started their apprenticeship at MACO in September 2014 and thereby took the first step to becoming highly-trained professionals. 86 apprentices are currently enrolled at MACO locations in Salzburg and Trieben for training in 12 different, primarily metal-fabrication professions, including 12 girls. The efforts and achievements of MACO for its apprenticeship training program have been recognised twice by the awarding of state-recognized training company status. The

seal reflects the high standards involved. MACO's teaching workshops with its own set of machinery are equipped with modern metal working machines, computer-aided milling machines and lathes, as well as programming stations for CNC and CAM training. Parallel to the dual training in vocational schools and the teaching program, the apprentices are given regular personality workshops, cross-departmental group and project work and professional trainers to support their

learning. As well qualified employees are increasingly difficult to find in the open labour market, MACO has been securing the potential of skilled personnel for almost 50 years from its own comprehensive, high-quality apprenticeship program. This in turn ensures that the high quality standards required for MACO products and production processes are maintained.



IMPRESSUM

Proprietor and producer: MAYER & CO BESCHLÄGE GMBH

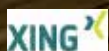
Chief editor: Sabine Barbie | technogramm@maco.at

Editorial board: Helmut Lang, Siegfried Skofic

This document is the intellectual property of MAYER & CO BESCHLÄGE GMBH.

Images: MAYER & Co | STÖCKEL | shutterstock.com

We reserve the right to changes without prior notice.



TECHNOLOGY IN MOTION

MAYER & CO BESCHLÄGE GMBH, A-5020 Salzburg, Alpenstraße 173

Tel: +43 662 6196-0, Fax Sales: +43 662 6196-1449

Fax Marketing: +43 662 6196-1470, email: maco@maco.at

Internet: <http://www.maco.at>



Scan for more Info 