

Roto Inside

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Excellent sliding in all formats

**Roto Patio Inowa:
maximum times three**

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Customised solutions
for all types of glazing

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Tested standard up to a sash
weight of 400 kg

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Alpen High Performance
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20 years of Roto România

Strong growth – strong team

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Door hardware technology
for external doors

**High-performance product
innovations for Roto Door**

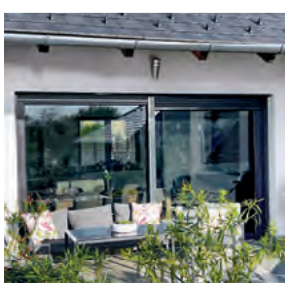
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Automatic power wedge receives
Zinc Die-Cast Award 2024

**Award-winning: impressive per-
formance of Roto Door product
technology**

[↗ click here](#)



Door Master, s.r.o., Slovakia

**Reliability matters,
now more than ever**

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Roto Inside

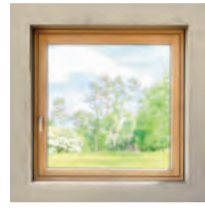
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Excellent sliding in all formats

Roto Patio Inowa: maximum times three



➔ **Video: intelligent hardware with concealed technology for tightly sealed sliding doors**

ftt.roto-frank.com/en/inowa-max-video (YouTube)

■ **Sliding** Whenever the window industry and architecture have to meet new requirements, Roto provides the perfect innovations to help. The latest example of this is Roto Patio Inowa | Max for sliding systems in any format with sash weights of up to 400 kg. This Parallel Sliding hardware is setting new standards in technology.

Whether you look out on countryside or the city, large sliding windows and sliding doors enhance the feeling of expansiveness and help create a relaxed atmosphere. The Roto Patio Inowa Parallel Sliding hardware embodies perfect functionality and ease of use. Freedom that you can see and feel.

Nothing but the best

In just a few years, the smart Roto Patio Inowa has become one of the world's most successful sliding hardware products. It represents a completely new technology and is a pioneer in the "Retract&Slide" class. The new version – Roto Patio Inowa | Max – is now also causing a sensation. It is suitable for all formats, from small to large, and offers outstanding operating convenience, even for elements in XXL format. The system is pushing the boundaries of what is possible: the same hardware version can be used to produce short, wide windows as well as tall, narrow sliding doors – and in all frame materials.

Getting the ball rolling with high-tech

Easy, intuitive and next to no friction – using a sliding door with Patio Inowa brings sheer joy. This is thanks to the innovative closing movement of the leaf perpendicular to the frame



profile. The leaf does not need to be lifted first in order to open or close it.

The new Patio Inowa | Max takes the internationally renowned technology and goes one better by adding other technical features: a ball bearing and height adjustable roller unit with integrated brushes and a comfort cam, which also is ball-bearing mounted, minimise rolling friction when the leaf moves. This is how even very large and heavy sliding doors are incredibly easy to move.

Intelligent and tightly sealed

Through the active control of circumferential locking points, sliding systems with Patio Inowa achieve a level of sealing that is usually only possible with Tilt&Turn windows. The system reliably protects against draughts, rain and external noise, even in extreme weather conditions and in multi-storey buildings with high wind loads. When the sash is closed, the entire hardware is

concealed between the sash profile and frame profile. The few components that are visible when the sash is open have a subtle design.

SoftClose – SoftOpen – SoftStop

Two innovative optional features now provide even more comfort when using Patio Inowa and Patio Inowa | Max: SoftClose dampens the movement of the sash when closing and draws it slowly closed. SoftOpen brakes the sash when opening and moves it slowly into the end position. With Patio Inowa | Max, heavyweights with a sash weight of more than 250 kg are now given extra strong support: the SoftStop function ensures gentle braking before closing as well as after opening.

Two versions to meet every requirement

Patio Inowa is the proven hardware for sliding systems with dimensions up to a sash rebate width of 2000 mm and a sash rebate height of 2500 mm with a maximum weight of 250 kg.

Impressive advantages:

- Intelligent and tightly sealed
- Efficient installation
- Exclusive design
- Burglary protection
- Premium quality

Like Patio Inowa | Max, it is available for elements with outward and inward running sashes.

Do you want to make your production more flexible without putting strain on your logistics? Then use Patio Inowa | Max to produce small windows as well as large elements with sashes up to a sash rebate width of 3000 mm and sash rebate height of 3600 mm with a maximum weight of 400 kg.

Patio Inowa | Max is the hardware for space-saving sliding in all rooms and buildings – without exception. The secret to its success is: maximum times three! Maximum operating convenience, maximum application range, maximum variety.

You can find more information on the Patio Inowa hardware product range in the brochure

**Roto Patio Inowa:
Turning your vision into reality.**

Available to download at
ftt.roto-frank.com/en/inowa-reality

In conversation



An interview with Marcus Sander, CEO of Roto Frank Fenster- und Türtechnologie GmbH

Roto Inside: Mr Sander, the first six months of 2024 have already been and gone. What conclusions can you draw for Window and Door Technology?

Marcus Sander: We can look back on a good first half of the year, which saw us acquire new customers globally. I see the fact that we have been able to convince further companies of our excellent performance in recent months as clear evidence of the success of our alignment towards customer benefits. Our consistently high reliability has led more building element manufacturers to realise the benefits of beginning or expanding their collaboration with us. Roto FTT has once again been able to expand its customer base thanks to successful new products in the Tilt&Turn, Sliding and Door segments.

Roto Inside: Can you give us a specific insight into your regional markets?

Marcus Sander: Looking to Asia, the Chinese market is continuing to shift from a new build market to a renovation and retrofit market. China has made its emission reduction regulations far stricter. Our Roto Patio Inowa sliding hardware is the only well-functioning system in Asia that reliably meets requirements for sliding opening, sealing and therefore insulation all in one.

In North America, we have acquired new customers in recent months thanks to the performance properties of Roto Patio Inowa and our Casement & Awning hardware. What's more, our consistently punctual delivery service is also an important factor in acquiring new customers in this region, too. In Central America, our strengths in aluminium building elements have led to stable business development. Our Tilt&Turn, Inline and Lift&Slide solutions are very popular in this region. Patio Inowa is the leading sliding system in South America. We are also further expanding our network of dealer contacts in this region.

In the German / Austrian / Swiss (DACH) markets, our customers report that demand is showing signs of a slight recovery. Initial positive developments can be seen in Austria and Switzerland thanks to government measures aimed at improving the energy efficiency of existing buildings. We are also expecting the German market to stabilise. In the DACH region, we predict a continued increase in demand for security products. Sound insulation and improving the energy efficiency of existing buildings will be important. Both in Southern and Eastern Europe, there is a positive trend in the new build and renovation sector thanks to state subsidies. Seen as a whole, demand is growing and we are also acquiring more new customers thanks to the strengths of our products and our delivery reliability in Europe. This is also down to the Roto product innovations which support our customers with their numerous new developments.

Roto Inside: How does Roto FTT help its customers to offer attractive solutions not only for new buildings but for existing ones too?

Marcus Sander: Each one of our product groups is designed to maximise the energy efficiency of a building element. Sealing properties are fundamental to this. These are perfected through the coordination of hardware and sealing profile. In this field, our globally active subsidiaries Deventer and Ultrafab make us the "perfect match" for window and door manufacturers around the world. It goes without saying that our hardware systems cover the entire scope of comfort and security solutions for all opening types and frame materials.

Roto Inside: How does Roto architectural hardware play a part in economical window and door production?

Marcus Sander: At product level, we offer complete architectural hardware solutions for facade windows and entrance doors. This creates significant synergy effects in sales, delivery and storage logistics for our customers.

We consistently maintain our delivery performance at a high level and provide a fully transparent and predictable delivery service. After all, for our customers efficiency means one thing more than anything else – receiving the required goods, at the right time, in the requested quantity. They can count on us to do this.

And what's more, all of our product ranges have been developed for flexible building element production paired with streamlined storage. Even as early as the design stage, they are developed to be easy to assemble, whether it's for manual, semi-automated or fully automated production.

Our integrated consultation regarding hardware and seal additionally supports the system concept. The aim is to offer the optimally coordinated solution from one provider. The latest examples of this can be found in this issue.

Roto Inside: In the last edition, you mentioned the expansion of your global sites with the aim of climate-neutrality in mind. Do you have any updates regarding sustainability?

Marcus Sander: We embody social and ecological sustainability along our entire value creation chain. We operate in close cooperation with our customers and partners and, by doing so, develop sustainable product and service solutions in our markets.

Our products are proven to be long-lasting. Their quality is ensured throughout the entire product life cycle. An example of this is the corrosion resistance of our hardware. With regard to climate change mitigation and environmental protection, we purposely design our production, operating and logistics processes to be energy efficient and we make sure to purchase starting materials which are made in an climate-friendly and eco-conscious way. We promote the sparing use and reuse of resources, paving the way towards a circular economy.

We act responsibly and transparently. We are committed to maintaining our integrity and to abiding by all applicable legislation and ethical standards. With this in mind, we strive for continuous dialogue with our staff and suppliers to promote sustainability in the industry and to meet our customers' needs.

Roto Inside: Roto FTT must have some plans for the remaining six months of the year?

Marcus Sander: We are really looking forward to the joint projects with customers and other interested parties, some of which came about during Fensterbau Frontale. These involve various topics in our Tilt&Turn, Sliding, Door and Seals product groups. Our international teams are getting ready to attend various regional trade shows. These include Fesqua in São Paulo, Batimat in Paris and GlassBuild in Dallas, all of which take place in September. These are followed by Veteco in Madrid and WinDoor in Montreal in November. We have already started preparing for BAU, which will be held in Munich in January 2025. I'm certain that we can continue to achieve success for our customers and for ourselves in the second half of the year thanks to the exceptional commitment shown by our staff around the world.

Tested standard up to a sash weight of 400 kg

Akotherm AT 840 with Roto Patio Inowa

■ **Aluminium** Producing Parallel Sliding elements made from aluminium even in very large formats without separate testing – Akotherm makes this possible with its AT 840 system which has undergone extensive testing. The company's project consultants, together with Roto, explain how it is used and manufactured.

"The aim is for the AT 840 Parallel Sliding system to be very straightforward for our customers to use, but also for manufacturers of PVC and timber windows who want to buy an aluminium system for example," explains Akotherm Product Manager Jürgen Aschkowski. This is why all sliding elements of all formats for which Roto Patio Inowa | Max is approved have been tested up to RC 2; both with outward and inward running sashes. "Our investment in this extensive scope of testing makes us fast and agile. This gives us a competitive edge that we want to use to our advantage."

Global consultation, delivery and support

At the end of April, Sales Manager Oliver Rang and his colleagues from project consultation visited the Roto Aluvision training centre at the site of the Velbert plant. The objective of this meeting was to collaborate even more closely, especially when it came to support for larger projects. "AT 840 systems are already being produced and sold successfully at international level, for example in Ireland and Türkiye. We want to use the experience gained in these countries to ensure, together with Roto, that



architects, metal constructors and building element manufacturers who buy parts around the world receive the best possible support."

Sharing of expertise

Roto customer adviser Norbert Getschmann describes how demand is developing in a very positive way: "At Fensterbau Frontale 2024,

visitors to the Roto stand had the opportunity to see an Akotherm AT 840 sliding system in XXL format at first hand. This attracted a lot of interest." The plan is for coordinated processes and advisers in both companies who are trained in the system and hardware to push ahead with the marketing of the aluminium system, which has been tested up to a sash weight of 400 kg.

Parallel Sliding systems from the Akotherm AT 840 range are available with inward and outward running sashes up to a sash rebate width of 3000 mm and a sash rebate height of 3600 mm. Akotherm's next step is to plan tests for diagram C systems.

www.akotherm.de

Door expert team

Tailored services

■ **Roto Door** The Door expert team stands for the very best services which meet door manufacturers' specific requirements. Experienced specialists from Sales, Product Development and Application Technology work closely together.

The staff join forces to support system suppliers and door manufacturers. Within the company, they have successfully promoted innovation processes and helped shape the development of the Roto Solid and Roto Safe product ranges. Everything about PVC, timber and aluminium doors – Roto can be trusted to live up to this claim. Over the course of just a few years, many new high-performance door hinges and multi-point locks have been launched.

A reliable partner

The Door Sales team, led by Tom Vermeulen, collaborates with national Roto Sales departments to support door manufacturers throughout Europe. Vermeulen reports: "As specialists, we are on hand when a company wants to extend their range of door products, for example, or to streamline their production processes, or if they are simply looking for a new supplier."

From the initial product idea to the market launch, the employees then take on the role of an expert team alongside design engineers, production managers and companies. The team helps to select compatible hinge solutions or locking systems and finds the perfect Deventer sealing profile for every door model. Customer-specific applications are available at short notice thanks to the well-established collaboration with the Product Development and Application Technology Door departments in Kalsdorf.



Around 80% of the Roto multipoint locks sold worldwide are produced in Kalsdorf. Identical parts and large series are manufactured in a semi-automatic process. As ever, the smallest series are produced the most efficient way – manually.

Lively dialogue

The members of the Door team are well-versed in working with each other, which is another reason why they collaborate so successfully with customers, underlines Tom Vermeulen.

Durability test in accordance with DIN EN 1191 in the accredited test centre at the Kalsdorf ITC



➤ **Roto testing services at a glance**

ftt.roto-frank.com/en/ITC

"In my experience, door manufacturers benefit greatly from the direct dialogue with our partner Roto. When we were in Kalsdorf, they presented their production facilities to us and showed how a door system is tested."

Andrzej Karolewski, Deputy Chairman of Polish company Procural, considers the joint visit with Procural customers in Kalsdorf in October 2023 to be time well spent. Procural is a manufacturer of aluminium systems for building elements and accessories and joined the German Laumann Group in 2023. "Our customers received knowledgeable and detailed answers to all of their questions. This also made it clear the lengths Roto goes to in order to be a very reliable partner for Procural, but also for metal constructors and companies in the door industry. Quality is a top priority for both Procural and Roto. Our visit to Kalsdorf was clear proof of this."



"The close links between all Door specialists at Roto make us much better."

Most of them are located at the Kalsdorf site in Austria. This is where Door products are developed and the sharing of knowledge with the door industry takes place and is promoted. More than 80% of all components for a Roto Door hinge side or a Roto Door lock are also produced here. Visitors rarely pass up the opportunity to view the state-of-the-art production facilities. And there are many of them as the site of the Kalsdorf plant has become a hotspot for the door industry.

Roto Kalsdorf: a hotspot for the door industry

The trainers from the Roto Campus team mainly provide training to private groups. Door manufacturers also have the opportunity to work with Roto and Deventer design engineers in a development workshop. They use the state-of-the-art test laboratories in Kalsdorf to perform preliminary testing on products. These offer durability tests in accordance with DIN EN 1191 and burglary tests in accordance with DIN EN 1627 to 1630. For these tests, the ITC Kalsdorf is accredited as an external provider of the ITC Leinfelden-Echterdingen in accordance with DIN EN ISO / IEC 17 025.

Vermeulen sums it all up: "Door manufacturers now have many good reasons to make the trip to Kalsdorf."

Filling a gap in the market

He describes how he sees the situation: "It's as though we are filling a gap in the market with the services we offer." Since Roto began organising and offering customer-specific events in Kalsdorf, the number of these arranged by the Roto Campus team specifically for door manufacturers has grown year on year. Dates for 2024 are already fully booked, while initial requests for 2025 have already been received.

Procural customers are all smiles after learning a lot about the latest multipoint locks and door hinges with Roto door technology in the Kalsdorf plant.

"Customers from all over Europe are drawn to Kalsdorf as the centre of Roto Door expertise."

Established specialists are on hand to provide support in Kalsdorf. Tom Vermeulen is certain that the events in Kalsdorf are a particularly good example of the added value that the Door team can create. "Close to customers and willing to deal with any concern – that is the impression that the visitors to Kalsdorf get."

Book your preferred date

Get in touch with your partner in Roto Sales if you would like to come up with or discuss new ideas with your colleagues in Kalsdorf. Book an appointment to clarify important future issues regarding your door portfolio. The experts will plan an event for your individual requirements to give you the opportunity to explore what is good for your business and train employees accordingly. From technical training sessions including installation training for hardware and seals to sales training – in Kalsdorf, training opportunities are tailored to suit the existing knowledge of participants.

Comprehensive services for door manufacturers

But maybe you would also like help with an important product development? The Door Sales team can also come to your premises to support you there if required. You don't need to attend an event to have access to the test laboratories at the site – you can use these at short notice to find the perfect combination of lock, door hinge, threshold and sealing profile in the Roto portfolio. After all, a "perfect match" between all components is pivotal to the performance of doors.



Tom Vermeulen,
Head of Door Sales,
Roto Frank Fenster-
und Türtechnologie
GmbH



Door hardware technology for external doors

High-performance product innovations for Roto Door

■ **Timber | PVC | Aluminium** Main door hinges, multipoint locks, thresholds and Deventer door seals can be precisely coordinated as system components. When perfectly matched, they ensure ultimate operating convenience, reliable burglary protection and sound and thermal insulation for every external door.

The door lock and door hinge segments of the Roto Door product range have been constantly extended over the past three years. In the following overview, we present to you the new products introduced from 2021 to 2024.



➤ **Overview of the Roto Door product range**

www.roto-frank.com/en/door



"4in1" access control system with Plug&Play connection
Access control for electromechanical multipoint locks

The "4in1" access control system is the perfect addition to electromechanical multipoint locks from the Roto Safe E range. The access control system offers multiple control possibilities: via Bluetooth using a mobile phone, finger scan, RFID or by entering a numerical code.

Preassembled connectors provide ease of installation. These guarantee a fault-free connection and fast commissioning.



Roto Safe H | H650
Mechanical multipoint lock with two unique selling propositions

The lever handle-operated multipoint lock is suitable for use in main doors, apartment doors and back doors made from any frame material. The robust main lock shown here with a maximum lever handle force of 20 kg ensures excellent functionality over a long service life. Combined with improved efficiency, this unique selling proposition provides even greater operating convenience.

The second unique selling proposition is that, when installed, the sound-absorbing whisper latch can be turned around at any time without any hassle.

2021



Roto Solid B | 224 A and Roto Solid B | 324 A
Clamp hinges for aluminium doors

The aluminium clamp hinges are part of the Roto Door range of butt hinges. The two-part version 224 A supports sash weights of up to 120 kg, while heavy doors with a sash weight of up to 160 kg can be created with the three-part-version 324 A. Each of these models has a roller diameter of 24 mm.

No profile machining is required for installation. The butt hinges can be inserted without the need for any drilling or routing work. This is thanks to the clamping blocks on the sash hinge and a clamping plate on the frame hinge.

The main advantage for every aluminium door manufacturer: the mounting concept can be flexibly adapted to the system-specific groove. This is how individual hinge versions tailored to the individual system are created with the same basic concept.

The standout technical feature is the adjustment mechanism integrated in the hinge roller. This makes continuous adjustment possible while preventing offset outlines. This means that, regardless of the door hinge adjustment, the appearance of the door is always the same, reliably maintaining the sleek look of the butt hinge.



Roto Solid C | C7.140
Fully concealed door hinge for aluminium doors

Roto Solid C enhances the design of modern aluminium doors. Not only does the door hinge, which is suitable for sash weights of up to 140 kg, remain fully invisible when the door is closed, installation is also efficient, involving just a few simple steps. Fast and secure mounting of the door leaf is ensured by the FixClick function, with a clear "click" providing audible confirmation that the leaf has locked into place.

The ability to rapidly adjust the height via a single adjustment point is particularly appreciated. The latest version of the height adjustment module impresses with further improved visual integration, as well as simplified processing and installation.

Since its market launch, various customer-specific versions of Roto Solid C have been developed in collaboration with door manufacturers. The advantage of this is that the door hinge is tailored to suit the specific profile situation and is perfectly adapted to meet the needs of the fabricator.



Customer-focused full-range supplier

The aforementioned product developments are a testament to the success of the “Door” focus initiative, launched in 2021, and are proof of the expertise Roto possesses in the market segment for door hardware technology. The company sees itself as a full-range supplier, regularly further developing existing products, launching new ones on the market, and optimally coordinating all door hardware components. This makes it simpler for you as a door manufacturer to produce extremely economically, in high quality, and with minimal risk of errors.

Your contact person in the Roto Sales department will be happy to provide you with advice concerning the application ranges for all Door products, the ideal door seal and the options for having your door system tested at a Roto International Information and Technology Centre (ITC).

Roto Solid B

Rebate- and overlap-screwed butt hinges for external doors made from any frame material

The latest generation from the Roto Solid B range offers maximum variety. Consisting of two- and three-part hinges with a diameter of 18 and 22 mm, respectively, the four butt hinge versions 218 P, 318 P, 222 P and 322 P are suitable for PVC, timber and aluminium doors with a 16 mm Euro-groove.

Depending on the butt hinge version selected and the properties of the door profile selected, sash weights of up to 80 kg, 120 kg or 160 kg are possible.

The standardised product concept means that the butt hinges have a lot in common when it comes to their technical features and appearance. For instance, no gaps are formed between the leaf hinge and frame hinge when adjusting the door because the adjustment mechanisms are integrated in the hinge roller. Offset outlines are prevented. The slimline appearance is retained. All hinge versions are easy to install in just a few operation steps, either in the rebate or in the overlap.



Tandeo Upgrade-Kit

Separate drive unit for unlocking main doors electromechanically

Thanks to the Tandeo Upgrade-Kit, manufacturers who keep the Roto Safe A | Tandeo mechanical-automatic lock in stock can offer their customers an electromechanical door lock, increasing flexibility.

The Upgrade-Kit is a separate drive unit for unlocking main doors electromechanically. Thanks to its Plug&Play connection, it is incredibly easy to connect the drive unit to the Roto Safe A | Tandeo mechanical-automatic multipoint lock during door production.

After installation, the automatic adjustment of the drive unit is activated using a micro button. The unit performs a calibration test run in order to check which settings it should apply to achieve compatibility with the existing mechanics.



2024

Roto Safe A | Tandeo and Roto Safe E | Eneo A
The latest generation of multipoint locks

On the “Roto Safe A | Tandeo” mechanical-automatic lock, the additional locks and the deadbolt in the main lock extend automatically when the door is closed. The door is locked without the need for any manual steps. The Roto Safe E | Eneo A electro-mechanical system with preassembled drive unit, which also makes it possible to effortlessly open the door without a key, offers even more comfort and accessibility.

The powerful motor in the Eneo A ensures a very short unlocking time and is incredibly quiet. The Plug&Play connection makes installation easy. Both door locks were the first locking systems on the market to be certified in accordance with the latest version of prEN 15685:2019 and meet the requirements of RC 2 / RC 3.

To provide door manufacturers with the best possible support for streamlined logistics and storage, Roto relies on its modular structure in the “Roto Safe” door lock segment too. The proof of this? The standard frame component can now also be used on the new “Tandeo” and “Eneo A” multipoint locks. This means that the frame component can be combined with a total of five different additional locks.



Lever-operated espagnolette Standard
For PVC or timber double-leafed main doors

The second opening leaf is locked and unlocked without needing to bend over using a convenient side lever, which has been tested over 25,000 opening cycles. A mishandling device provides even greater security. This only locks the first opening leaf once the side lever is retracted and the main deadbolt blocks the connecting rod of the second opening leaf. This ensures that the correct closing order is observed and the door is securely locked.

The lever-operated espagnolette Standard can be used with extensions in virtually all standard locking patterns up to a sash rebate height of 3000 mm. It can be combined with all Roto multipoint locks, is corrosion-resistant in accordance with EN 1670 class 5 and is compatible with RC 2. SKG** tests are in progress.

Cropping marks on the espagnolette simplify correct cutting. No routing is required for the operating lever. If the door is to be opened electronically, a marking for the drilling position allows a magnetic contact to be easily integrated and also retrofitted as required.



Door Master, s.r.o., Slovakia

Reliability matters, now more than ever

■ **PVC** “For us, Roto means stability and security,” emphasises businessman Roman Szapu. And this is particularly important to him at the moment because his company has been experiencing declining demand lately. “We receive market-leading products and can rely on the logistics and service at all times.”

Roman Szapu founded Door Master in 2013. In addition to Roto NX, the company also works with a large quantity of Patio Inowa sliding hardware. At Fensterbau Frontale, he got the chance to examine the product concept behind Patio Inowa | Max for very small and very large sliding elements with a sash weight of up to 400 kg.



Szapu reports that the demand for windows and doors dropped dramatically last year in Hungary and Slovakia too, where he has built up a network of dealers for his company, Door Master. Problems with suppliers would have a particularly negative impact on medium-sized companies at this time. “Right now we are expending all our time and energy on kick-starting the demand for state-of-the-art products with added value.” The focus is on Parallel Sliding windows and doors with Patio Inowa, main doors with the automatic Tandeo multipoint lock and Tilt&Turn windows with a contemporary design, featuring slimline profiles.

Precise and flexible

Opening his own window factory in 2013 was a dream come true for Szapu: “I’ve always been fascinated by the interplay between state-of-the-art machinery and manual work that characterises our industry.” The Door Master team manufactures windows and doors for specialist dealers in Hungary and Slovakia at its factory in Nové Zámky, approximately 100 km east of Bratislava and around 100 km north-west of Budapest. These products are produced to meet the specifications of usually private builders. This calls for precision and flexibility as their requirements are stringent and highly specific.

“With Roto, we produce elements in all formats, with any weight and with high security standards.”

Door Master produces PVC windows and doors for specialist dealers in Hungary and Slovakia.



This sliding system with Patio Inowa from Door Master is 4000 mm wide.

The partner’s product range includes everything that Door Master needs. In high demand at the moment are windows with modern, slimline profiles and integrated forced ventilation. “Thanks to Roto NX, Door Master is able to offer windows with an excellent design and concealed components for burglary protection.” At the same time, this Tilt&Turn hardware from Roto is very popular with staff in production.

“The NX range is incredibly safe and easy to assemble.”

Growing requirements

If Szapu compares the elements that Door Master produces today with those ordered ten years ago, he can identify two major trends: individual elements are becoming ever larger but they should still be easy to open and close. At the same time, they have to look good and offer different options for ventilation. High thermal and sound insulation are still important requirements.

Given this consumer preference, Szapu expects demand for sliding windows and doors equipped with Patio Inowa to grow over the next few years. “Sales figures have increased, even last year when our turnover was low. This is almost certainly due to the operating convenience and security offered by the Parallel Sliding system. It is virtually impossible to operate the system incorrectly.” And that’s not all – the system is tightly sealed.

Staff praise the ease of assembly

Hardware from the Inowa system is incredibly easy to work with, just like it is for NX. That is why this sliding hardware is much appreciated among employees in the Production department at Door Master.

The enthusiastic builders installed two sliding doors with Patio Inowa next to each other. They opted for bicolour profiles: white on the inside, anthracite grey on the outside.

“Patio Inowa impresses people throughout the entire value chain.”

From the manufacturer to the end user, everyone benefits from the intelligent design of the hardware. To be as flexible as possible in terms of the formats and weights, Door Master will now add Patio Inowa | Max, which was showcased at Fensterbau Frontale, to its range. “Whether a space-saving kitchen window or a large sliding element – with Patio Inowa | Max, we can produce everything in high quality.”

Slimline hinges – convenient multipoint lock

Door Master equips main doors with Solid B door hinges, which have a slimline design that is highly rated by dealers and builders alike. Door designs are currently dominated by clear lines and right angles. “A slimline door hinge with a premium surface, like the Solid B, is an excellent match for these.”

During on-site installation, the simple adjustment features throughout the hinges really come into their own.

With the Tandeo multipoint lock, Door Master provides extra comfort and security, which is also proving popular. “In future we would like to encourage our dealers to offer main doors with electromechanical unlocking. Using the Tandeo Upgrade-Kit, we can flexibly offer a main door with this comfort feature at any time.”

And what does Szapu have planned for the future? “For the near future, just staying economically stable. Roto will help us with this, I’m sure of it.” The partnership is proving to be extremely reliable. “At Fensterbau Frontale I obviously also visited the Roto City and once again experienced how truly first-class windows and doors can be manufactured with Roto technology. I was inspired by the configurations I was shown and I will do all that I can to share this enthusiasm with my trade customers.” www.doormaster.sk

Customised solutions for all types of glazing

Roto Glas-Tec

■ **Accessories** Quality in window production starts with choosing the right accessories. The Roto Glas-Tec range offers the best glazing methods for sustainable, durable building elements made from any frame material. The customer-specific testing service from Roto helps you with quality management.

Glazing blocks distribute the weight of the glazing over the frame and compensate for it. At the same time, they ensure that the glass edges do not have any contact with the frame. This means that they play an essential role in allowing a building element to function fault-free over a long service life and help prevent damage to the glazing. You are sure to find the ideal glazing blocks for any type of glazing in the Glas-Tec range.

Best raw materials – consistent quality

More and more element manufacturers are finding their way to Roto in their search for a wide selection of accessories, including glazing blocks. The reason? The performance of the glazing technology depends on the

construction as well as on the quality of the raw materials used. Only packers made from high-quality PVC, produced in accordance with strict quality standards, are able to fulfil their function throughout a window's entire service life.

It is important for the material of the accessories to be compatible with the edge composite sealing compounds for glazing to be mounted safely in the long term. The risk of damage to the window caused by incompatible materials or poor-quality glazing methods can be minimised with glazing technology and services from Roto.

The perfect solution for every application

Roto glazing blocks are ageing-resistant and temperature-resistant, and tested to ensure stability under continuous pressure. They are compatible with most common edge composite sealing compounds and generally impress with their high load-bearing capacity. Ift Rosenheim verified the pressure resistance of the entire product range as set down in Technical Guidelines (TR) 3 of the Glazier Trades.



➤ **Roto Glas-Tec: customised solutions for safe glazing**

www.rotot-frank.com/en/glas-tec



Roto Glas-Tec | GL-NM

The basic block

- For standard glazing



Roto Glas-Tec | GL-SV

The block with ventilation channel

- For standard glazing
- With ventilation channel for constant rebate area ventilation and vapour pressure compensation
- High load-bearing capacity thanks to reinforced profile leg system



Roto Glas-Tec | GL-B

The block with brake membranes

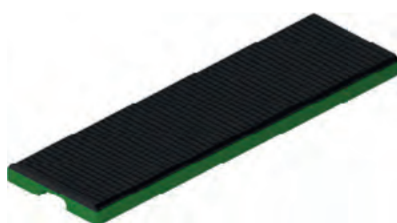
- For standard glazing
- With brake membranes for the best hold without additional fixing
- Stable under continuous pressure and able to bear loads thanks to asymmetrical profile leg system



Roto Glas-Tec | GL-IB

The block for triple glazing

- For glazing thicknesses of up to 60 mm
- With ventilation channel for constant rebate area ventilation and vapour pressure compensation
- Secured load transfer through special geometry of the ventilation channel
- High load-bearing capacity thanks to reinforced profile leg system



Roto Glas-Tec | GL-UK

The universal block made up of two components

- For the spacer blocking of high-quality insulating glass such as bulletproof glass, laminated safety glass, sound insulation and sun protection glass
- With flexible supporting surface to protect delicate glass edges
- Compensates for offset glass edges and glass edges which are not at right angles
- With ventilation channel for constant rebate area ventilation and vapour pressure compensation
- Stable under continuous pressure and able to bear loads thanks to symmetrical profile leg system



Roto Glas-Tec | GL-UKS

The universal block with stainless-steel insert

- Ideal for protruding substructures
- High inherent stability thanks to stainless-steel insert
- With flexible supporting surface to protect delicate glass edges



Roto Glas-Tec | Compensating blocks

For the ideal positioning of glazing blocks in the glass rebate

- Profile-related
- Compensate for the level and tolerances in the glass rebate
- Form a level supporting surface for glazing blocks
- Help with ventilating the rebate area and with load transfer
- Ideal to fix in the glass rebate for an excellent hold



Roto glazing tools

- Help ensure simple and fast glass installation
- For lifting, moving and relocating panes of glass

Concealed hinge side Roto NX | C

Invisible and indispensable

■ **Timber | PVC** Roto was one of the first companies to develop concealed hardware, playing a significant role in encouraging the fenestration industry to take an aesthetic, design-oriented approach. Now Roto is once again taking on a leading role and is introducing a further development in the form of the Roto NX | C concealed hinge side.

The Roto NX | C hinge side gives you many options to not only produce a standard building element but to create a high-quality design feature for a room. You can process the hinge side in timber and PVC profiles with a 13 mm hardware axis.

Rapid processing – ease of installation

The hinge side C is part of the modular hardware system of the Roto NX Tilt&Turn system of the same name. This makes processing incredibly simple for you, as all components are optimally coordinated.



Reduced variety of parts – less storage space required

One of the main trademark features of Roto NX is that many of the same parts are used. This minimises the number of different components. The reduced variety of parts and the minimal complexity are based on the Roto NX modular system.

How do you benefit from this? You need less space and can produce your windows and balcony doors with maximum efficiency. Very little preparation on the sash and frame is needed to install the hinge side C. The form-fitting Clip&Fit connection enables all components to be coupled at the same points.

If you already use one of the four surface-mounted hinge sides from the Roto NX range, the centre closer offers you the additional benefit of a modular principle with a reduced number of parts, as the concealed hinge side C has the same centre closer.

Reliable and durable

The load transfer has an inspection window and a pre-tensioned spring. If the entire screw head can be seen in the inspection window, the load transfer is set correctly.

By using the load transfer, the load is reduced on the pivot rest and transferred to the frame. For the users of the window, the sash load



If you make the building element flush, it will look even better. With a flush and fully concealed design, windows and balcony doors blend seamlessly into the room.

distribution helps ensure the functional safety of the window system as a whole, therefore making the building element highly durable.

Dependable burglary inhibition

You benefit from ease of installation, your customers from the very high standards of the hinge side C in terms of burglary inhibition and operating safety. How? Roto NX | C provides reliable burglary inhibition in accordance with resistance classes RC 2 and RC 3, and can be extended with the addition of TiltSafe and TiltFirst functions. Thanks to robust TiltSafe security strikers, the window is burglar inhibiting according to RC 2, even in the tilt position.



The three sash-stay sizes of the hinge side C share the same mounting principle. This means that they are always mounted in the same standardised way using a clip regardless of the sash dimensions. Simple mounting of the sash on the construction site is also ensured. Another advantage is that there is no need to unhinge the sash to change the tilt depth.

Since the turn-out curve of the pivot rest is also designed for flush profiles, you can offer a building element with the Roto NX | C hinge side that impresses in multiple ways: exceptional security standards and exclusive design combined in the same hardware technology.



Stay arm



Stay guide



➤ **Roto NX | C: invisible and indispensable**

ftt.roto-frank.com/en/roto-nx-c



Sophisticated appearance

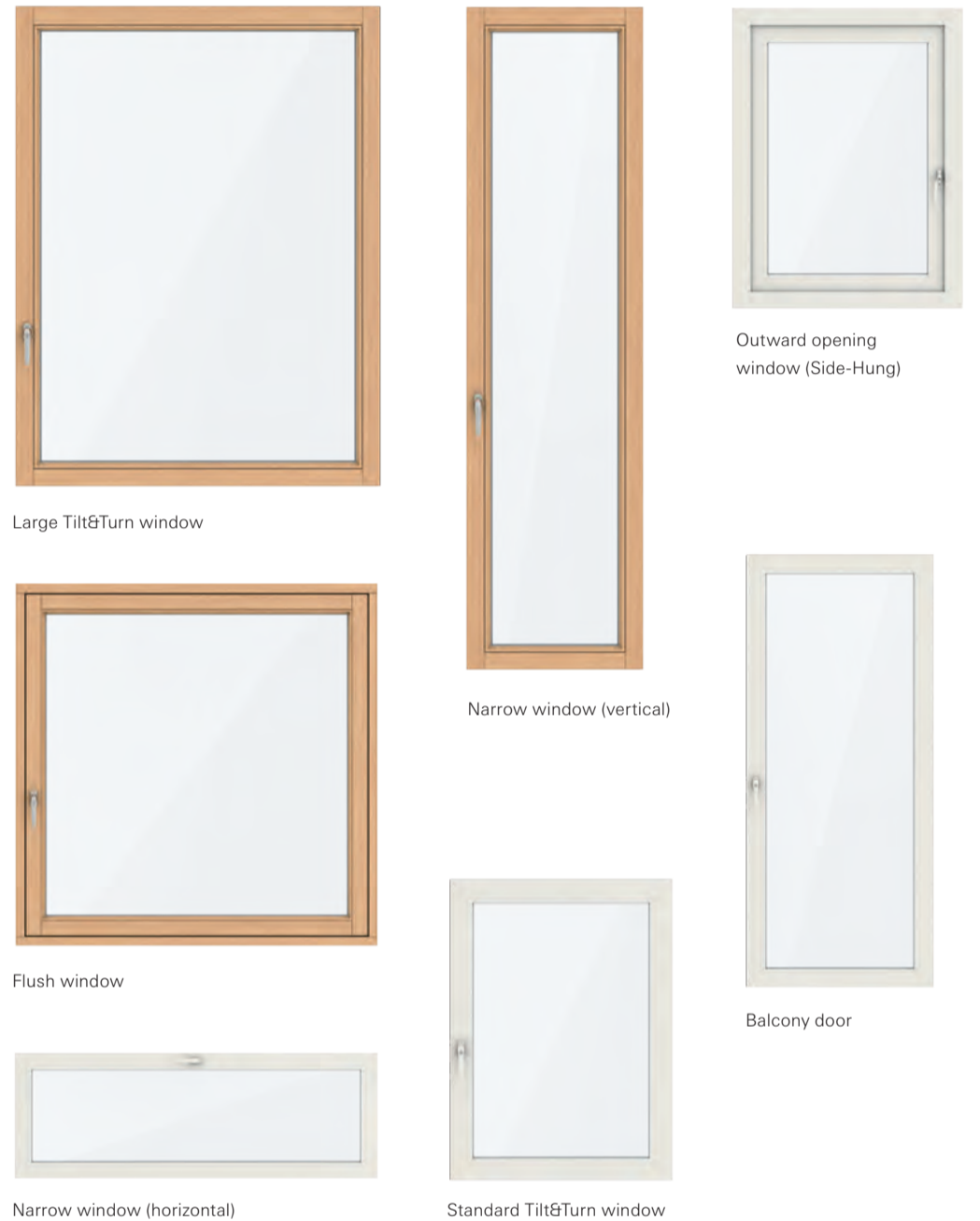
All components of the Roto NX | C hinge side are integrated into the window frame and sash so that they cannot be seen from the outside, including the stay bearing and pivot rest, which are fully concealed in the sash rebate. As a result, the hinge side and the windows and balcony doors equipped with it meet all the requirements associated with modern interior architecture. The building element is transformed into a design feature in the room.

First-class quality and comfort

Our quality standards set the benchmark. The quality of the robust, high-quality components

is ensured by in-house tests at the International Technology Centre (ITC) in Leinfelden. These include material and corrosion tests as well as testing of the long-term functional performance.

And that's not all – external certification from test institutes like ift Rosenheim ensures the high functional safety of the hinge side C. As part of QM 328, the hinge side has been tested for compliance with durability class H3 in accordance with DIN EN 13126-8 (20,000 cycles) and for compliance with corrosion resistance class 5 in accordance with DIN EN ISO 9227 and EN 1670, among other tests.



When paired with a 20 mm flat threshold, the hinge side C can also be used to create an attractive and safe solution with driving rain impermeability for accessible balcony doors.






Wide variety of formats

Roto NX | C can be used to create a wide variety of window formats in different versions – no matter whether these are large window elements up to a sash rebate height of 3000 mm and with a high sash weight, or modern, narrow formats.

For PVC profiles, the maximum sash weight is extended up to 150 kg, while timber profiles can be used up to a sash weight of 180 kg – with load transfer and a turn restrictor being required for both. A fastening plate is also fitted for sash weights between 150 and 180 kg.

The hinge side offers a vast selection of possible uses and different versions. Alongside the TiltFirst version, this also includes the outward opening option with a Side-Hung design – a

space-saving window solution where the sash does not protrude into the room when open. The tilt stay limits sash opening in this version.

	Sash weight	PVC	up to 150 kg
		Timber	up to 180 kg
	Sash rebate width	up to 1750 mm	
	Sash rebate height	up to 3000 mm	

Optimally coordinated hardware and seal

You are not only able to purchase hardware technology from Roto, but compatible sealing profiles too. Our sealing profile specialists Deventer and Ultrafab cover all opening types and applications for windows and doors around the world.

On request, the sealing profiles can be optimally coordinated with the kinematics of a Tilt&Turn window, for example, and the specific Roto NX hardware configuration that is selected, and are produced to meet the customer's individual requirements. This means that the Roto NX | C hinge side and the Roto NX hardware system as a whole make a "perfect match" for tight sealing and long-lasting operating convenience.

Find out more today!

Our Sales department would be happy to personally provide you with comprehensive information about Roto NX | C and would also be pleased to offer you a "tour" through the virtual conference centre in our Roto City consultation platform.



Corner hinge



Pivot rest

Alpen High Performance Products, Inc., USA

Energy-saving windows for everyone

■ **Vinyl & Fiberglass** Highly insulated windows play an important role in reducing CO₂ emissions in the building sector worldwide. The US government is therefore supporting an ambitious project by Alpen High Performance Products Inc.



This single-family home in Nederland, Colorado, was certified as Passive House International (PHIUS) and received the Single Family Home Honorable Mention Award in the 2023 Phius Passive Projects Design Competition. It was also named Green Building of the Year by the Colorado Green Building Guild in 2023. It features windows with Roto hardware technology developed and produced by Alpen.



➤ Explore Roto's vast range of casement products

ftt.roto-frank.com/en/casement-awning

The government wants to “democratize highly efficient windows”, explained Energy Minister Jennifer Granholm after a visit to Alpen’s production facility in Louisville, Colorado, on March 8, 2024. She believes every developer and homeowner should have access to energy-saving solutions and that companies committed to reducing CO₂ emissions should be supported. This certainly applies to Alpen, explained Tom Hassell, Supply Chain Manager at the company, in an interview with Roto Inside.

insulating glass and energy-saving windows, are being modernized through high, partly state-funded, investments. An additional line for insulating glass will be built at the second production site in Vandergrift, Pennsylvania. The new, highly automated, facilities will be among the first of their kind in the United States, explains Tom Hassell. “We will be able to produce significantly larger quantities of our insulating glass and windows.”

In the Electric Pass Lodge in Snowmass, Colorado, the highly thermally insulating façade and window elements from Alpen ensure spectacular views and provide natural ventilation through Roto NX Tilt&Turn and Turn-Only windows.

Pioneers of energy-saving window technology

“Our windows were installed years ago in homes and buildings that have since become more energy efficient. These include the Empire State Building and projects in some of the harshest climates in the world, including Antarctica and the Arctic Circle,” he reports. Alpen began with the vision of producing high-quality windows and doors. Whether it’s renovation or new construction – the company offers its customers optimal solutions for every application and structure.

Roto for all opening types

In 2016, Alpen began producing Tilt&Turn windows and doors utilizing Roto hardware. Today, applications based on the Roto NX Tilt&Turn system account for around 30% of window sales. Tom Hassell reports that they have become particularly popular in residential construction due to their ease of use and premium sealing properties. As a new partner at the time, Roto North America helped Alpen determine appropriate Tilt&Turn system configurations. The foundation of their joint success is beyond question:



Motivated team

Most of Alpen’s window and renovation systems are included in the “2024 ENERGY STAR® Most Efficient List,” reserved for products that are recommended for the construction of very energy-efficient buildings. Tom Hassell is convinced: “This is the result of more than 40 years of striving for improvement and working with a highly motivated, diverse team.” He emphasizes: “The people at Alpen share a special spirit of innovation, and now we can expand our production capacity.”

“Alpen and Roto North America have the same mindset.”

Their desire for continuous growth is what characterizes both companies and helps them develop their high-performance products. As end consumers demand for ever higher energy efficiency increased, Alpen sought out Roto North America two years ago to discuss Roto X-Drive hardware solutions for Casement & Awning windows as well.

company was founded, but today customers want ever larger, energy efficient, windows, reports Tom Hassell. Alpen was therefore looking for a fitting that could be produced flexibly, because:

changer” and improves the performance of Alpen’s Casement & Awning windows both technically and aesthetically.

Highly automated manufacturing

Alpen’s production facilities in Louisville, Colorado, utilized for the production of

Tight even with large formats

Casement & Awning windows have been manufactured at the Louisville site since the

“Only a window with perfect hardware has a strong performance.”

Once again, Roto North America proved to be a strong partner in the development of a new solution. Alpen can now manufacture window sashes for the Aspect+ line weighing 200 pounds without any significant additional effort. “Thanks to Roto North America, we can optionally equip our Casement&Awning windows with an additional corner drive, which improves performance and security.”

Growing together

Tom Hassell is looking forward to the major development steps that Alpen will be taking in the coming months. “Enormous opportunities are opening up for our customers and, of course, for ourselves. Being accompanied by Roto North America will help us overcome any challenge. We will grow together and provide the market with increasingly modern windows.” This fulfills Alpen’s mission to make the greatest possible contribution to the energy efficiency of buildings.

www.thinkalpen.com



At the headquarters in Louisville, a dedicated team manages the development of Alpen. The company employs approximately 130 employees across the US.

Roto X-Drive system as a “game changer”

Tom Hassell confirms that Roto North America is the partner Alpen was looking for. “Topics like availability, response time, flexibility, punctual delivery, and a reasonable price are important, but our partners also need to be innovative.” The Roto X-Drive system with corner drive, for example, is a “game



Tom Hassell, Supply Chain Manager, Alpen High Performance Products

Fixed-glazed elements and toplights combined with Tilt&Turn windows and balcony doors with Roto hardware guarantees ease of use and superior sealing.

20 years of Roto România

Strong growth – strong team



Images "Single-family home, Nederland":
Drew Tooley at Trendem Media



Roto România now operates a logistics site for customers in Romania, Bulgaria and Moldova at the business park to the west of Bucharest.



➤ Welcome to Roto Romania

ftt-roto-frank.com/ro-ro

■ **Company** In 2004, Roto made the decision to establish a logistics site in Romania to offer more services for window and door manufacturers there. Country Manager Marian Pop reports how he and his team have since achieved success by providing customers with services wherever they are and by ensuring an impressive level of reliability.

When Pop joined Roto in 2000, he was tasked with the objective of setting up a sales company in Romania. Within just a short space of time, he and three colleagues managed to get many customers on board, especially among manufacturers of PVC windows. To offer them an ever better delivery service, Roto invested in a logistics site near Bucharest in 2004. "If you wanted to produce quality windows, you had to take the opportunity back then to work directly and closely with the global market leader for Tilt&Turn hardware," recalls Pop.

Efficient logistics

In 2011, Pop was appointed Sales Manager, while in 2017 he took on the role of Head of Customers and Markets / Customer and Market

Logistics for Romania and Bulgaria. Martin Graé, Director of Customers and Markets / Customer and Market Logistics for Eastern Europe & Middle East is on hand to support him. Pop emphasises: "We owe a lot to the collaboration with Martin Graé. His strategic and sales expertise in particular was pivotal in enabling us to achieve our current level of performance." Roto România has doubled its workforce since 2004, while sales have seen an almost tenfold increase. The warehouse, acquired in 2004, was replaced by a larger one a long time ago. Pop explains the dimensions: "We had 350 pallet bays to begin with. We now have 2100 over an area of 1800 square meters." Thanks to greater digitalisation and efficient processes, the products stored there are handled within a matter of days and delivered on time.

Advice with added value

"Alongside the high quality of Roto products, delivery reliability and availability are especially important to our customers," reports Pop. Nowadays, another factor in his team acquiring new customers is comprehensive expertise in all aspects of modern building element production. "We give manufacturers advice and support if they want to optimise processes or set up new production lines. And this offers even more added value." That's not all – Roto România provides customers' staff with training in installation and sales when new products are launched.

New partners

At the same time, specialists from the European Roto organisation provide support with specific customer requests or issues and help with acquiring new customer groups. This made it possible to appeal to Romanian and Bulgarian manufacturers of aluminium facades and windows in close collaboration with colleagues from Roto Aluvision. "We have taken very promising steps and will continue to work on establishing Roto as a strong partner to the aluminium building element industry."

"Collaboration with Roto România began soon after Madrugada was founded in 2003."

This is how Bogdan Furtos, Deputy Managing Director of Romanian company Madrugada, recalls the start of a fruitful partnership.

"We think highly of Roto NX hardware in particular, and we have also achieved huge success with the Patio Inowa sliding hardware. We trust that Roto will remain innovative and will launch many more products that will allow us to continue growing together. It's always been beneficial for our company to have such a strong and fair partner by our side who offers us reliable technical support and long-term stability."

www.madrugada.ro



Madrugada is one of the largest Roto customers in Romania and currently produces up to 1500 windows and doors daily based on Roto hardware technology.

New topics

However, another initiative for providing advice is the priority for Pop at the moment: "The perfect match is an important issue for some of our customers too. This was clearly evident at Fensterbau Frontale earlier this year. That's why we're currently having many conversations about optimum coordination of hardware and seal for building elements with greater operating convenience."



East West Hospitality's Electric Pass Lodge in Snowmass, Colorado, offers vacation rentals. The building is powered 100% by renewable energy. Roto Tilt&Turn hardware is installed in the window elements.

Images "Electric Pass Lodge" and "Team Alpen":
Alpen High Performance Products



Marian Pop
Head of Customers and Markets / Customer and Market Logistics
Romania & Bulgaria
SC Roto România S.R.L.



Martin Graé
Director of Customers and Markets / Customers and Market Logistics
Eastern Europe & Middle East
Roto Frank Fenster- und Türtechnologie GmbH

Automatic power wedge receives Zinc Die-Cast Award 2024

Award-winning: impressive performance of Roto Door product technology



Three representatives of Roto Frank Austria GmbH, Kalsdorf, accepted the Zinc Die-Cast Award on 16th May of this year in Düsseldorf, from left to right: Norbert Buchgraber, Process Manager for Zinc Die-Cast, Thomas Hirschmann, Main Process Manager for Semi-Finished Parts Production, and Markus Maier, Process Technology for Semi-Finished Parts Production.



■ **Company** The German Zinc Initiative (Initiative Zink), established in 1999, presents the Zinc Die-Cast Award in six categories every two years. On 16th May of this year, the automatic power wedge in the Roto Safe A | Tandeo mechanical-automatic multipoint lock came out on top in the Security & Locking Technology category (www.zinkdruckguss-preis.de).

This cast component, the Roto automatic power wedge, is set apart by its design and construction consisting of a combination of materials – an insert part made from carbonyl steel and zinc die-cast.

Corrosion-resistant

The fact that steel machining is often uneconomical is compensated for by the zinc die-cast encapsulation. This strikes the perfect balance between the strengths of steel and zinc die-cast. At the same time, the use of the ZP0410 alloy (ZAMAK 5) achieves excellent corrosion resistance.

Roto Safe A | Tandeo door lock

The automatic power wedge is part of the additional locks in the Roto Safe A | Tandeo mechanical-automatic door lock. With this door lock, main doors can be locked automatically without using a key. The multipoint

lock is available for many common profile systems made from any frame material with a backset from 35 to 80 mm.

In combination with the Tandeo Upgrade-Kit as an additional drive unit, the main door can be conveniently opened electromechanically, even without a key. The Upgrade-Kit is installed during door production.

RC 2 and RC 3

The automatic power wedge is used at the top and bottom of the door rebate and offers the very highest level of security. The strength of the automatic power wedge is fundamental to ensuring that the Roto Safe A | Tandeo multipoint lock can withstand attempted break-ins according to resistance classes RC 2 and RC 3 as per DIN EN 1627.

The automatic power wedge is produced by Roto Frank Austria GmbH in Kalsdorf, one of a total of 18 production plants operated by Roto Window and Door Technology. Around 80% of the Roto door locks sold worldwide are produced in Kalsdorf.

Network dedicated to zinc

The Zinc Initiative (www.zink.de), based in Düsseldorf (Germany), brings together manufacturers and fabricators, as well as suppliers and recyclers. It provides architects, civil engineers and tradespeople with assistance in matters relating to design and corrosion protection. The Initiative also serves as an expert point of contact for authorities and institutions for all issues concerning the environment and resource efficiency.

A future-proof raw material

As a high-performance material, zinc not only offers advantages due to its mechanical and technical properties, it also boasts an outstanding environmental and energy footprint and can be reused after its utilisation phase, making it a raw material with added benefits.



Specifications for the automatic power wedge

Dimensions	62.4 x 43.7 mm
Height	9.5 mm
Component weight	54.4 g
Alloy	ZP0410



➤ **Roto Safe A | Tandeo: mechanical-automatic multipoint lock for entrance doors**

ftt.roto-frank.com/en/tandeo



➤ **Installation video for the Tandeo Upgrade-Kit**

ftt.roto-frank.com/en/upgrade-kit (YouTube)

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To improve the reading flow, only the masculine form is used in some parts of the text.
Within the meaning of equal treatment, the corresponding terms apply neutrally to all genders.