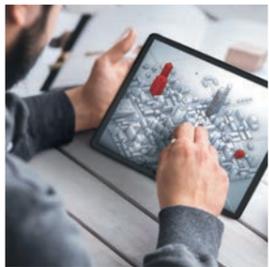


Roto Inside

Customer and partner information | Issue no. 47 | 4.2021

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The future of sales
communication
Welcome to Roto City!

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Deventer, Russia
**Sought-after
industry partner**

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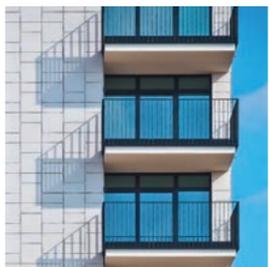
In conversation
**An interview with
Marcus Sander, Chairman**

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Extension of the Roto Patio Lift
product range
**Classic Lift&Slide hardware
for every application**

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Renoven, Spain
Partnership in action

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Window handles
with Roto AVT
For extra hygiene

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Tightly sealed, comfortable
and aesthetically pleasing
**Rehau sliding system
with Roto Patio Inowa**

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Methodical approach
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Expert tips for procurement

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Plug & Play with Roto Safe E
**Easy cable
connection**

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The future of sales communication

Welcome to Roto City!

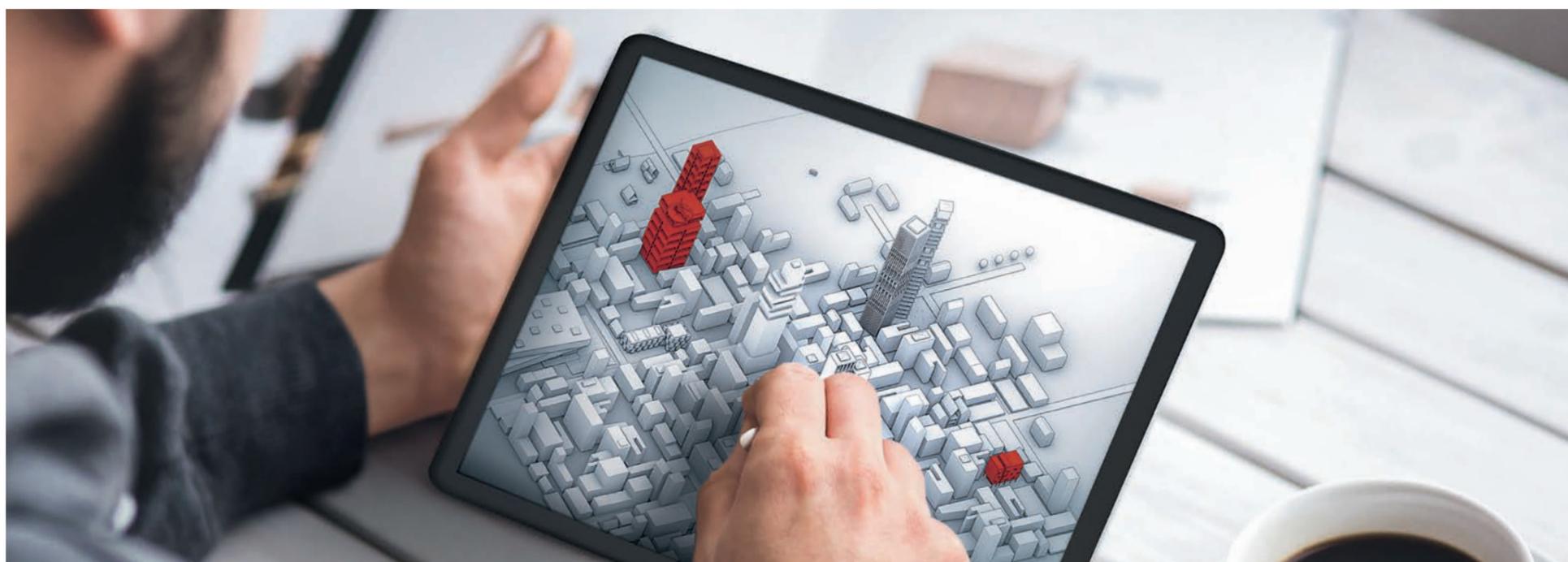


Photo: Roto/pixabay

■ **Company** The outbreak of the coronavirus pandemic has fundamentally changed the global economy. But the challenges this entailed did not manage to dampen Roto's inventive and pioneering spirit. On the contrary.

Thanks to the digitalisation of production and process control that has been progressing for years, Roto succeeded in maintaining full delivery capability worldwide throughout all phases

Roto City – step into a new world: Does it include buildings with special requirements such as hotels, hospitals or nurseries? Visitors to the Roto City get an idea of the added value that hardware solutions can offer here. In a video conference, the specialist advisers from Roto draw up a road map together with their customers, specifying how and when they should receive further information allowing a project to be completed successfully.

of the pandemic. A concept for Internet-based knowledge transfer – the Roto e-learning – was in place when the spread of the coronavirus started to turn personal contact into a risk. It quickly became clear that the work of the Sales department would have to be professionally digitalised too. It was important to rethink the communication and service process so that it could continue to generate full added value. Added value for customers and anyone who would like to get to know Roto better.

Digitalisation of sales

How can consultation, service and sales be implemented successfully with less face-to-face contact and more digital contact? Roto came up with some smart answers to this question, and many people in the company shared their experiences in order to develop a future-proof, digital tool for the Sales department. The result was a completely new type of communication platform – the Roto City. Since the start of the year, the experts from Roto Aluvision have been the first sales team to visit this virtual city together with their customers. Like in any major city in the real world, the Roto City is home to buildings, ranging from detached houses through to hospitals, which require modern building elements. Taking these buildings as an example, Roto Sales uses modern conference technology and special presentations to illustrate how windows and doors can perfectly meet building users' requirements through ideal hardware innovation.

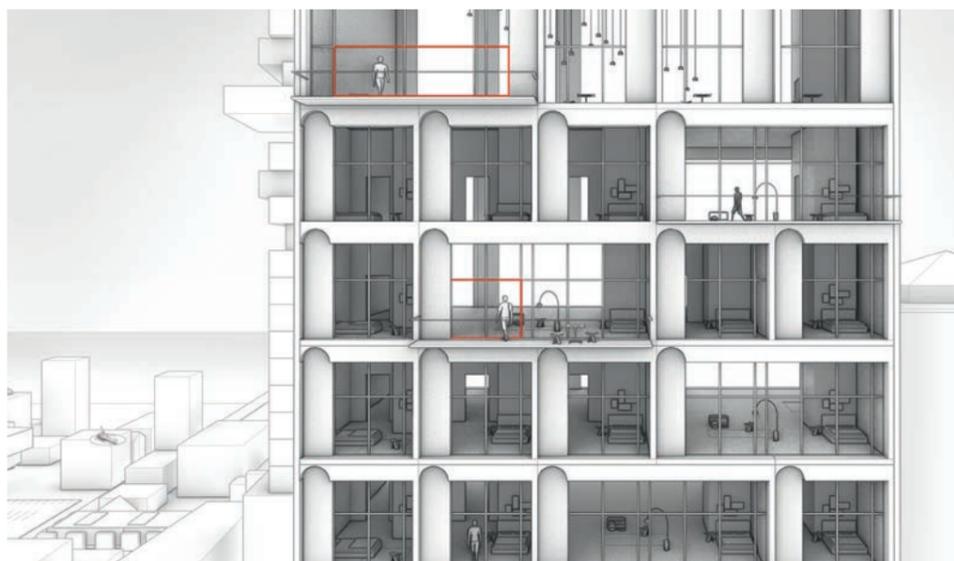
Further platform expansion initiated

After working in the Roto City for just a few weeks, one thing is clear to the professionals: by visiting the Roto City, a good exchange with customers can be successful without any need

to travel. With focus and indefatigable energy, a project team is now constantly working on further expanding the virtual city and the infrastructure which makes it possible for Sales to support customers with inspiration and technical advice. For this purpose, a modern recording studio, where customer advisers can get in contact with window manufacturers on every continent, was constructed at the Velbert site. They are there live, in real time, when experts are discussing and coming up with new project-specific solutions.

Innovative for the buildings of the future

Partners of Roto are therefore well-equipped and confident about taking on the construction tasks of the future, even in times of the pandemic. The media portal on the website www.roto-frank.com already contains installation, maintenance and operation instructions, installation videos and much more. Lasting learning is possible through the digitalisation of the Roto Campus. The contacts in Roto Sales contribute digitally in team and project meetings with their flexibility and good preparation. This, as well as successful cooperation with old and new partners, paves the way for lasting success.



➤ **Information and registration for the Roto City**

<https://ftt.roto-frank.com/int-en/services/roto-city/>

In conversation



An interview with Marcus Sander, Chairman of the Board of Directors at Roto Frank Fenster- und Türtechnologie GmbH

Roto Inside: According to the December 2020 issue, the turnover of Fenster- und Türtechnologie was at the level of the previous year. This outcome was by no means a foregone conclusion.

Marcus Sander: All in all, we were even able to close 2020 with a turnover result that was actually slightly higher than the 2019 level. The pandemic and the very volatile global market situation meant that this was by no means a foregone conclusion. It was the result of our very agile and flexible actions dedicated to keeping our staff healthy, maintaining our full delivery capability on all continents and our initiatives aimed at providing benefits to customers.

To date, not one single employee has been infected with the coronavirus at the workplace. This also applies to all visitors to our company and certainly reflects the effectiveness of our hygiene and health measures at all 15 production sites and in all sales companies.

Roto Inside: What expectations do you have for 2021?

Marcus Sander: We hope to return to normal, both in our day-to-day work and in the economy as a whole. We are cautious but optimistic. Cautious because of the ongoing coronavirus situation. We must observe national provisions, which are continuing to impact the national economy and therefore our regional scope for action. This is why we are unable to effectively gauge the regional market developments in our industry, even though individual markets, such as Germany, are performing well. In

comparison to this, a decline in construction activities and therefore also a drop in orders were apparent in many countries as early as last year.

The follow-on effects of partial market downturns and other market turbulences during the year are likely. At the very start of the year, commodity prices climbed sharply again. The costs for freight and logistics are also continually increasing. These are other factors that we cannot change.

We are, nevertheless, optimistic because we can rely on our company performance and have got the year off to a good start with our preparedness.

Roto Inside: What do you mean when you say that you've "got the year off to a good start"?

Marcus Sander: At the beginning, I mentioned our initiatives aimed at providing benefits to customers. This year, we will continue to pursue two courses of action in this respect: digitalisation and product innovation. And we have started the new year with good organisation in these exact two areas. The clear objective behind our efforts is to create added value for our customers and market partners.

Roto Inside: Can you provide details of your efforts relating to digitalisation?

Marcus Sander: In the productive sector, we have been working on machine networking and digitalisation of our entire supply chain for years now. Driverless transport systems and collaborative robots are now standard in our factories. As the next step, we are planning autonomous transport on factory premises, for example. All of this supports our quality and speed in the production and delivery process and comes across to our customers as delivery reliability.

Customer communication is a focal point for digitalisation outside our production process. With the Roto City, we have created the possibility of virtual product consultation, geared towards different building types and individual usage requirements. In January, our Aluvision team started using this digital sales tool, which is a long-standing component of our sales communication. The Roto City is not a replacement for a physical trade fair and is not in competition with our website.

Our web-based e-learning and the media portal integrated in our website are other aspects of our digital customer communication and are very well-received all over the world.

Roto Inside: You mentioned the product area. What specific action are you taking here?

Marcus Sander: Here we are using the good results from the past year to further advance product-related topics such as Roto Patio Inowa and Roto NX. The Patio Inowa sliding hardware is being upgraded with new sash formats, among other innovations, this year after we introduced the Inowa comfort functions SoftOpen, SoftClose and SoftStop last year. With our Roto NX Tilt&Turn hardware, we were able to acquire market shares and will continue market penetration this year.

But we don't just associate the word "innovative" with a specific hardware function or group. For us, this is also linked to the overarching system concept. This is what makes it possible for our customers to combine parts of individual hardware systems with each other and, therefore, to produce various opening types while saving time and, ultimately, to produce the required hardware with fewer parts, including use of our Deventer gaskets. The key word is efficiency. This is how we guarantee that every window production process is economical.

Roto Inside: What can Door customers look forward to this year?

Marcus Sander: Very close collaboration from the initial product idea to market launch. With this aim in mind, we set up the expert team for "Door Innovation" at the start of the year.

On the product side, we will further intensify our efforts in the aluminium main door segment. In collaboration with renowned aluminium system suppliers and market-leading door manufacturers, we are working on expanding the Roto Solid door hinge and Roto Safe door lock product groups. Specific examples are the continuous development of the Roto Solid C concealed door hinge for outward opening doors and profile-specific innovations for clampable main door hinges and butt hinges.

Within the Roto Safe door lock product group, we are concentrating on our new generation of mechanical-automatic multipoint lockings. In this field too, we are focusing on making door hinges easy to work with for our customers and are, of course, ensuring integration in the entire Roto Safe door lock product range.

"Excellence in Production"

Award for Roto toolmaking

■ **Company** The Kalsdorf production plant of Roto Fenster- und Türtechnologie was among the top 10 finalists in the "Toolmaker of the Year 2020" competition and in the top 3 in the "Internal toolmaking company with less than 50 employees" category. A total of 203 companies took part in the competition.

The competition was organised by the Laboratory for Machine Tools at the Rhine-Westphalian Technical University (RWTH) Aachen and the

Fraunhofer Institute for Production Technology IPT. The aim was to find the best tool, die and mould making companies in the German-speaking region.

Before Roto Frank Austria GmbH participated in the competition, extensive data logging and analysis took place within the company with regard to high-performance toolmaking. The topics evaluated included process planning and management, as well as a reduction in the lead time and manufacturing costs for the tools.

The data was compared with data from the current best toolmaking companies in Europe and Asia.

Investment in a fully automated machining centre for producing individual tool components and other measures for digitalised process data logging were among the results to be implemented in a short space of time in Kalsdorf.

Ensuring quality with in-house toolmaking

With over 30 members of staff, the Toolmaking department at Kalsdorf produces die casting and injection moulding tools, among others, for Roto Fenster- und Türtechnologie's (FTT) entire production network. Managing Director Christian Lazarevic describes the benefit of this in-house service for customers worldwide as follows: "Ultra-precise tools in an efficient production process 4.0 reliably result in the best hardware quality." This should and will remain the same, even as customer requirements continue to increase.

Kalsdorf is the FTT factory with the greatest production depth worldwide. Around 80% of global door lock deliveries come from the Austrian production site. "In Kalsdorf, we are also well-equipped for the pre-production and custom production of special parts and ultra-small series," explains Lazarevic. "With our toolmakers, in-house die and mould making facilities, and our state-of-the-art systems technology, we are also able to produce prototypes in a short space of time. Customers ask us to help them with developing new products just as often."



Christian Lazarevic, Managing Director Roto Frank Austria GmbH

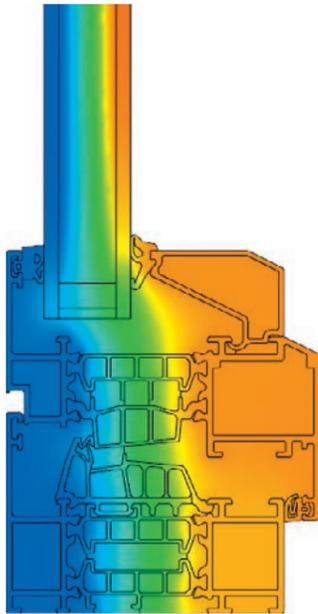


Deventer TPE profiles for aluminium windows

Fraunhofer Institute confirms thermal conductivity values

■ **Gaskets** The thermal conductivity value of the installed gaskets is extremely significant for the U_w value of an aluminium window. For around a year, there has been an animated discussion surrounding the validity of some thermal conductivity values going around on the market for certain sealing profile materials.

For calculating the U_w value and the CE declaration and for choosing a suitable gasket, aluminium system suppliers need valid data relating to the thermal conductivity values of different sealing profiles. These are found in the rule tables, which contain values that are worked out based on standardised material samples.



Temperature curve in an aluminium window

Graphic: BAUWERK, engineer office for building physics and window technology, WinISO® simulation software

Material density affects thermal conductivity value

The discussion between system suppliers and individual sealing profile manufacturers is currently examining the influence of the material density of foamed materials on the thermotechnical component characteristic values of the profiles. The reason for this is the finding that the publicly declared thermal conductivity values of individual materials can only be achieved with very low material densities. A material that foams up excessively, for instance, is not suitable for producing functional window gaskets. Roto Inside spoke to Deventer Managing Director Mike Piqueur about the developments of the last 12 months.

Roto Inside: What do you think of the discussion surrounding the validity of the thermotechnical component characteristic values of sealing profiles?

Mike Piqueur: This discussion is important for the aluminium window industry. Ultimately no one wants to and no one should rely on incorrect values. Calculations based on incorrect gasket thermal conductivity values lead to a deviating U_w value for a window. This has an impact on the performance declaration and CE marking. So the system suppliers are asking sealing profile manufacturers like Deventer how valid the thermal conductivity values in the tables are.

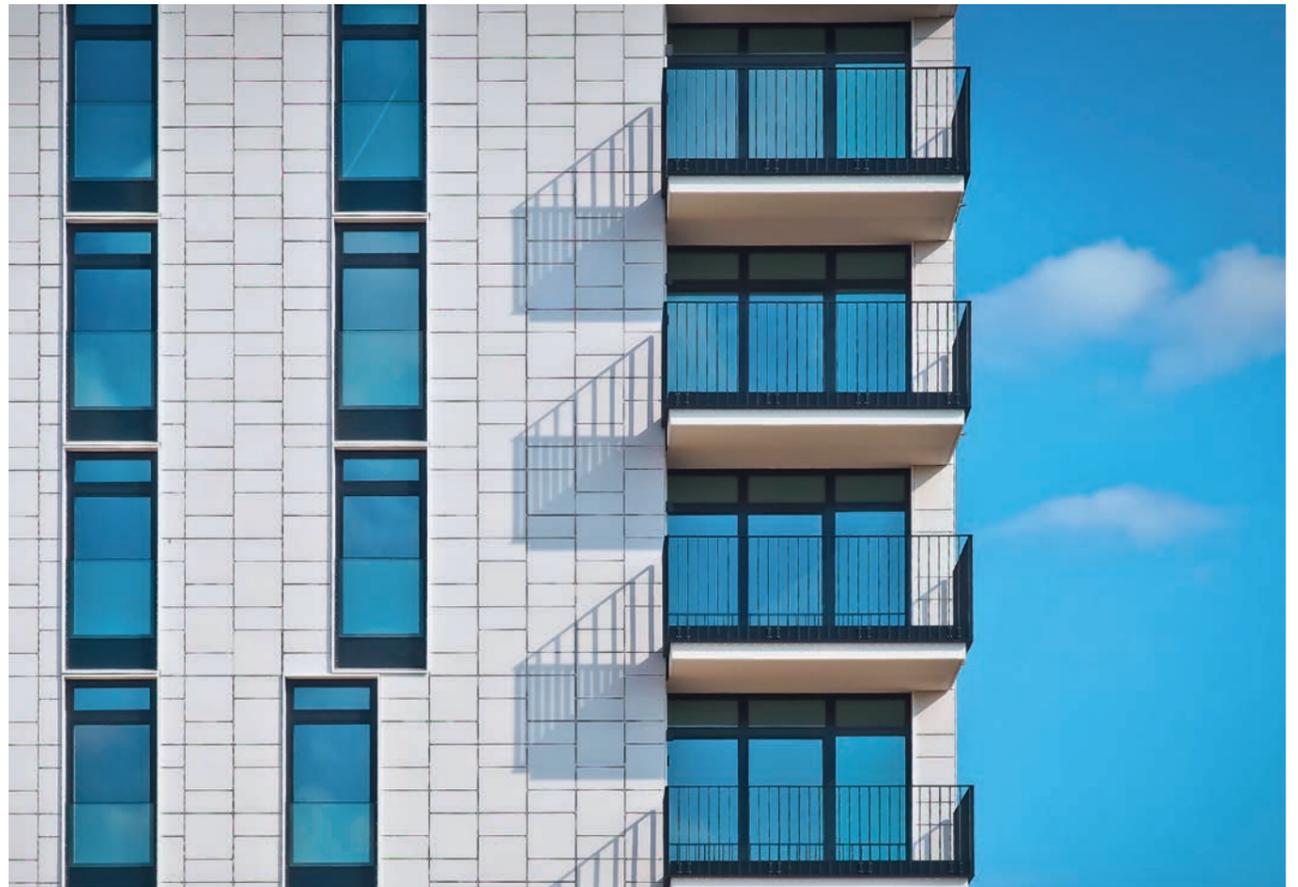
Roto Inside: How can system suppliers protect themselves and their customers against false CE declarations?

Mike Piqueur: The most reliable way would be to determine the U_w value individually for each window version using the sample. But that is, of course, unrealistic and not cost-effective given the variety of different formats and versions that we currently work with in practice. This is why the calculation based on component characteristic values presented in tables became established. However, this type of "automated" calculation obviously depends on the initial values in the tables being correct.

Roto Inside: When did you learn of the doubts surrounding the validity of individual values in the tables?

Mike Piqueur: In spring of 2020, customers got in touch with questions about the thermal conductivity values of TPE gaskets from Deventer. To be more specific, customers wanted confirmation from Deventer that the thermal conductivity values of TPE gaskets recorded in the applicable tables are based on tests performed on real sealing profiles.

These questions got us thinking. Also because they related to a comparison with the values of a different material. As a result, we didn't just look at the values of our products but also the data for sealing profiles made from other materials in the tables.



The more window elements installed in a facade, the more relevant their U_w value for the energy balance of the building.

Photo: pixabay

Roto Inside: And what was your response to customers' greatest concern of getting reliable statements about the thermal conductivity values?

Mike Piqueur: Our values were and still are valid. Despite this, in 2020 we took our customers' queries as an incentive to have all values tested again by the Fraunhofer Institute. The results were the same as a few years ago.

It is important and indeed logical for the characteristics of the original material for a sealing profile to be investigated in the original foaming state when the thermal conductivity value is determined in the test rig. Valid values can only be determined when a goods sample directly from production is examined. It must be guaranteed that a gasket is supplied with the exact material properties that were tested. For Deventer, this is a matter of course. In this respect, we can guarantee that the thermal conductivity values that we give to our customers are reliably achieved by every gasket supplied.

Roto Inside: How important are the gasket and its thermal conductivity value for the window's U_w value?

Mike Piqueur: They are incredibly important in the construction of aluminium windows. The thermal conductivity value of the frame gasket in particular, which reduces the rebate area, has a major impact on the heat transition coefficient of the window component. A gasket has to be flexible, robust and highly insulating at the same time. This poses a major challenge when it comes to choosing the raw material and the optimum foaming of the gasket. The usual density for the foamed areas of a sealing profile is between 0.6 and 0.75. With highly resilient and very durable sealing profiles, we still regularly achieve 0.6. This is good for thermal insulation. Incidentally, the Fraunhofer Institute has now once again confirmed that TPE usually achieves much lower, i.e. better, thermal conductivity values than other conventional raw materials of the same density.

Roto Inside: Is it conceivable to use foamed sealing profiles that have a density of less than 0.6 to 0.75 and tend to achieve an even better thermal conductivity value?

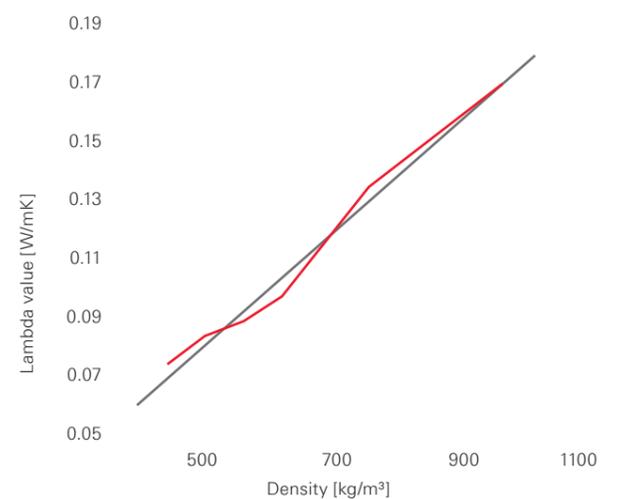
Mike Piqueur: I have to answer this question with an unequivocal "no". Over decades, we have tested various foaming levels for customer-specific sealing profiles. You always reach the point when the gasket loses its shape when foaming. The fenestration industry, however, needs gaskets that permanently keep their shape. And in contrast, for optimal thermal insulation, a certain material density must not be exceeded.

Thanks to our experience in manufacturing TPE gaskets, we manage to extrude incredibly balanced products for any requirements. Products with thermal conductivity values that have

been tested and confirmed by the Fraunhofer Institute. In this way, we can ensure that system suppliers and metal constructors are on the safe side. Valid data and exceptionally effective sealing profiles are and will remain our trademark.

In addition, more and more aluminium window manufacturers are recognising a further strength of Deventer's TPE gaskets: they can be separated from aluminium without leaving any residue behind. In this way, they also support industry efforts to sort and then recycle aluminium components. This turns aluminium profiles and TPE gaskets into especially sustainable building elements.

Link between density and thermal conductivity



— Foamed Deventer TPE gasket
— Link between density and thermal conductivity with TPE



Mike Piqueur,
Managing Director of
Deventer Profile GmbH

Extension of the Roto Patio Lift product range

Classic Lift&Slide hardware for every application

■ **Aluminium** Roto quality for Lift&Slide systems is sought-after on an international scale. This is why the Patio Lift hardware product range has recently been extended with the addition of numerous components, initially for aluminium element construction. The classic is now being upgraded with new versions and further improved performance values.

Manufacturers of aluminium sliding doors currently have a variety of profile systems available to them. Following the recent extension, the Patio Lift hardware product range can now be combined with most of them. This allows fabricators to flexibly meet their customers' differing requirements for design and operating convenience.

Three solutions for Slim profiles

In addition to the proven standard versions of Patio Lift that are suitable for sashes with a weight of up to 400 kg, Roto now also offers three solutions for Slim profiles. The minimal installation depth of the hardware components developed for this makes it possible to use profiles with minimal visible widths. Three versions are available for Slim profiles. They are suitable for producing sashes with a weight of up to 150, 200 or 400 kg.

New espagnolette

The new DesignLocking espagnolette is available as an option for greater comfort and an improved appearance. Its features include a striker that is flush with the frame and a locking cam that is located in the espagnolette and does not protrude into the access area. As the striker is inserted into the frame and screwed down, in some cases there is no need for any routing work at all depending on the profile. This saves time in production.

For sash heights of up to 3100 mm

The portfolio of the particularly easy to install espagnolettes in the Patio Lift product range makes this Lift&Slide hardware ideal for various window and door formats with sash heights from 1000 mm to 3100 mm. The espagnolettes are prepared for mounting profile cylinders as standard. In the versions for elements with a sash weight of more than 300 kg, dampers which prevent uncontrolled rebound of the handle are integrated as standard.



DesignLocking espagnolette

Roto Patio Lift Slim: suited to profiles with narrow visible widths



Roto Patio Lift: solid hardware for all conventional aluminium Lift&Slide profiles

Photo: Roto/AdobeStock



Optional stainless steel Plus roller unit

Extensive accessories

The Roto Line handles compatible with Patio Lift can be coated according to customers' wishes. A wide range of accessories is also available. This includes, for example, an optional locking pin for night ventilation, a floor striker in conjunction with a claw integrated in the roller unit for diagram C and – to provide extra protection – a buffer stop. This brakes the sliding sash in the opening direction. The logo of the window manufacturer can be added to the espagnolettes in the form of an information clip on request.

New roller units

The Patio Lift roller units have been improved once again. Ball bearings made from high-grade stainless steel and low-wear rollers made from special PVC ensure smooth running and long-lasting stable operation. Compared to the standard version (class 5 in accordance with DIN EN 1670 and EN 13126), the stainless steel Plus version also boasts increased corrosion protection for use in coastal regions, for example.

In the standard version, Patio Lift Lift&Slide hardware is suitable for sashes with a weight of up to 200 kg. The load bearing capacity can be increased up to 400 kg with a roller unit auxiliary set. A roller unit support for the standard versions Lift 300 and Lift 400 reduces the pressure that the closed sash exerts on the rollers. Reducing the pressure in this way promotes a long service life.



➤ **Roto Patio Lift: hardware for versatile use in Lift&Slide systems**

<https://bit.ly/2JDVYh7>

Roto AL and Roto AL Designo

Up to 3000 mm without the need for special approval

■ **Aluminium** The new installation instructions for Roto AL or Roto AL Designo show an extended range of applications. For example, sashes up to a height of 3000 mm can be produced without the need for special approval with the proven hardware from the Aluvision range.

As early as last year, window manufacturers benefited from the extension of the application range for the Roto AL hardware system. This successfully passed the required tests back at the start of 2020. Since the start of 2021, it has been clear that, with the addition of the AL Designo concealed hinge side, even more sash formats can be offered and produced without the need for special approval.

Technical testing supports trend-focused window production

The trend for very tall windows and balcony doors made from aluminium shows no signs of abating. This is why Roto began tests with hardware configurations from the Roto AL and Roto AL Designo product ranges for sashes up to 3000 mm high. After the corresponding test series were completed successfully, the

installation instructions for the Roto AL and Roto AL Designo product ranges were extended. Window manufacturers are now able to offer a greater range of different window formats without having to wait for special approval.

Property-specific consultation for even greater flexibility

If elements taller than 3000 mm are to be made available, Roto Aluvision will continue to support window manufacturers in future by proving fast, binding statements on feasibility and necessary testing or special approval. "It goes without saying that we are working on constantly further extending the application range of Roto AL with standard components. The fact remains, however, that when a window cannot be produced with a standard solution included in the installation instructions, we are also the right point of contact because of the outstanding consultation we offer," emphasises Matthias Kosog, the product manager in charge. "You can always count on Roto! We prove this almost on a daily basis with property-specific solutions which allow window manufacturers to even meet unusual customer requirements."



Sash heights of up to 3000 mm – demand is growing



➤ **Overview of hinge sides for aluminium windows**

www.roto-frank.com/en/aluminium

Roto Aluvision Turn-Only and Tilt&Turn hardware components

Range fully certified in accordance with QM 328

■ **Aluminium Roto is once again providing proof of the highest product quality. All Turn-Only and Tilt&Turn hardware segments for aluminium windows have recently been certified by ift Rosenheim in accordance with QM 328 in line with the latest standard.**

The AL 300, AL and AL Designo Tilt&Turn hardware all achieved long-term functional performance class H3 and corrosion protection class 5 throughout. This makes Roto Aluvision the first supplier with a fully certified product range on the market.

Like the surface-mounted hardware, including the heavy hinge sides for up to 300 kg, the AL Designo concealed hardware was also subject to repeated opening and closing in accordance with EN 13126-8 and EN 1191 in all weight classes up to and including 180 kg.

It even exceeded the requirements of the highest durability class, H3 (which stipulates 20,000 cycles). Its corrosion resistance in line with class 5 in accordance with DIN EN 1670 was verified by a neutral salt spray test lasting 480 hours.

Switching made easy

If a system supplier is planning to switch to Roto products or to add the AL and AL Designo hardware product ranges to its portfolio, this can be done without any difficulty. This is because initial type testing reports for windows according to DIN EN 14351-1 shall remain valid under two conditions. Firstly, if there is a changeover to hardware with an ift certificate according to QM 328, for example to a Turn-Only or Tilt&Turn product range from Roto. Secondly, if the window system's quality is proven to be the same as or better than the previous window system in a specified comparison test on a calibrated test rig.

Roto offers its customers the option to subject windows to the corresponding tests in the International Technology Centre (ITC) in Leinfelden-Echterdingen.

Using the best as a benchmark

"The QM 328 certification for all Turn-Only and Tilt&Turn configurations of Aluvision is further evidence that Roto is setting the benchmark when it comes to quality standards. What Roto offers aluminium window manufacturers and system suppliers is nothing less than maximum reliability and the best functional quality," explains Matthias Kosog, Product Manager Tilt&Turn of the Roto Aluvision division.

New components are always tested internally at Roto. Since QM 328 was established, testing has also been performed externally in accordance with this conformity certificate. The re-certification that has now taken place by the ift is therefore also proof of the robust in-house verification practices, emphasises Kosog. "Our customers can be certain that, with the AL and AL Designo product ranges, they are purchasing first-rate quality while choosing a portfolio that enables them to respond even to unusual customer requests flexibly and without the need for special approval thanks to a particularly large application range."



➤ **The International Technology Centre (ITC) in Leinfelden-Echterdingen: overview of mechanical and technological tests**

www.roto-frank.com/en/itc

Window handles with Roto AVT

For extra hygiene

■ **Aluminium Fabricators of the Roto AL or Roto AL Designo Tilt&Turn hardware product ranges are able to order Roto Line window handles and geared-handles with an antimicrobial and UV-resistant coating.**

It is known as Roto AVT, which stands for "antiviral technology", and is proven to be widely effective against viruses, bacteria and fungal spores that could stick to a handle. Roto AVT renders them inactive and therefore harmless. In this way, the risk of a smear infection and new infection chains is significantly reduced.

Order-specific coating

"For hospitals and care homes in particular, but also for other public buildings, there is an increasing demand for products with surfaces which inactivate pathogens such as bacteria and viruses," reports Dr Gregor Stöber, Head of Surface Technology at Roto Frank Fenster- und Türtechnologie. Since metal construction plays a key role in fitting out care homes and public buildings, Roto therefore looked for an option to offer window handles and geared-handles in any colour and surface with an order-specific antiviral coating within a short time, for aluminium windows at first. The ideal technology was found for this in the form of Roto AVT.

Triple the effectiveness

Roto AVT is transparent, thin-layered and barely perceptible to the touch. The coating produces a very hard, pore-free surface which creates the lotus effect. It is extremely difficult for the hydrophilic membrane of a virus envelope, organic substances, moisture and other contaminants to attach to the surface. Roto AVT does more than just simplify cleaning and disinfection of window handles; it also gives the window handle an antibacterial, fungicidal and virucidal effect.

Roto AVT is also proven to be highly effective against enveloped viruses including the families of influenza viruses (H1N1) and COVID-19 viruses (SARS-CoV-2). The active ingredients contained in the coating attack the virus envelope. The envelope becomes porous and the virus is rendered inactive. In this way, Roto AVT prevents viruses from being transmitted to other persons, even between cleaning and disinfection cycles.

Greater protection for a long time

Tests in a certified test centre have shown that the antiviral and antibacterial effectiveness of Roto AVT is incredibly long-lasting and is maintained even when a window handle is used very frequently. "Similar coatings are used in hospitals, on sanitary equipment, bed frames and medical equipment," explains Matthias Nagat, Head of Roto Aluvision Range Marketing and Product Adaptation. "All Roto component groups with this new coating can therefore also be used in good faith for windows designed for areas with stringent hygiene requirements."

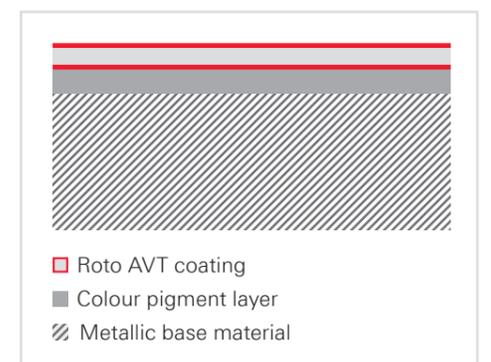
When deciding to make their purchase, window manufacturers receive a certificate for their documentation confirming the effectiveness of the coating for up to three years, which is subject to an additional charge. If a framework agreement for purchasing certain quantities has been negotiated, window handles can upon request also be printed with information making the user aware of the window handle's special surface.

Available now

European manufacturers of aluminium windows are now able to order Roto Line window handles and geared-handles with the Roto AVT coating in the same way as they would order a special colour. The delivery time for individual orders is four weeks. After entering into



Roto Line window handles with Roto AVT: added value for areas with stringent hygiene requirements

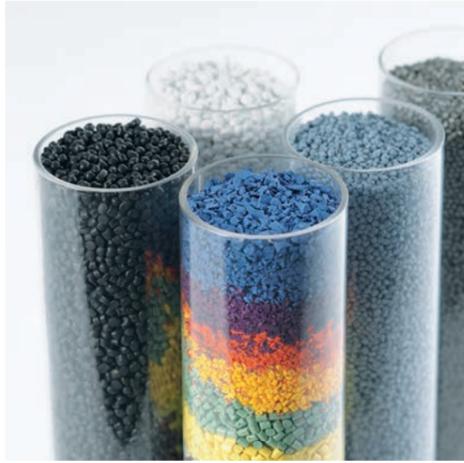


Roto AVT for the lotus effect: highly effective against enveloped viruses including the families of influenza viruses (H1N1) and COVID-19 viruses (SARS-CoV-2).

a framework agreement, defined items can also be provided within the standard delivery time. Extending deliveries to customers on other continents is possible following agreement and planning, as is application of the coating to other component groups from the range of Roto handles. Roto sales representatives can provide advice upon request.

Methodical approach to supplier selection

Expert tips for procurement



Roto puts all material suppliers through their paces. In focus: lasting reliable product quality and delivery capability.

■ Company “You can only be as good as the suppliers you choose – particularly in a volatile global economic situation like the one caused by the coronavirus pandemic.” That’s according to Harald Böhm, Head of Strategic Procurement at Roto. In Roto Inside, he shares his knowledge with all those responsible for purchasing and procurement at their companies.

Harald Böhm and his expert colleagues have been buying everything needed to produce hardware or locks in the plants all over the world for over 20 years. “This involves us establishing a strong partnership with our suppliers. As such, we do not differentiate ourselves from the window manufacturers who buy from us,” he explains. “Those wanting to sell products of equally high quality need good suppliers and clear specifications on how these are selected.”

Supplier check

There is a defined quality approval process for all purchases, which also includes tests in the International Technology Centre (ITC) in Leinfelden. “Here, we don’t just carry out the traditional tests in accordance with RAL, we also check the requirements of other international markets,” reports Böhm. Once the manufacturers have undergone extensive supplier checks at Roto, the supplier’s products are tested, in sometimes complex test configurations.

As part of the supplier check, the efficiency and sustainability of a potential supplier are assessed according to over twenty criteria. In so doing, the auditors look at issues such as the company’s vertical range of manufacture, how they deal with resources and materials, at the

quality of tools, the condition of production sites and the testing methods and laboratories. Böhm explicitly recommends this very thorough and systematic examination of a supplier to fabricators of semi-finished products too, such as window manufacturers who purchase hardware.

Performance audits

“When we plan the introduction of new products and systems, such as Roto NX, then suppliers who could participate are always checked thoroughly according to the same structure,” explains Böhm. “For instance, audits are performed on site to determine what a manufacturer can offer Roto and, therefore, window and door manufacturers around the world. For German producers, that’s quite normal, according to Böhm. Abroad, things are often quite different.

“Roto is also ‘german made’ worldwide thanks to comprehensive supplier assessments.”

This is because Roto’s suppliers across the globe are actually audited and qualified in accordance with German standards, where this is by no means part of the national standard.

Feasibility analyses

If entirely new components are needed and acquired for a hardware system, the supplier check begins with a feasibility analysis. “Of course, from decades of experience in industrial hardware production, we are able to accurately

assess what is feasible with established technology,” explains Böhm. “We also know what tasks can present a challenge even for very experienced suppliers. But this does nothing to change the requirements for supplier quality.” This is why Roto is both a demanding and interesting dialogue partner for its suppliers.

Böhm recommends requesting that each company you entrust with solving a problem produce a feasibility analysis that has been carried out professionally. Its findings must be presented in writing by the supplier and can lead to a legally binding agreement.

“Roto has contractual agreements with the around 100 most important suppliers.”

Far beyond the industry standard

The type and scope of Roto supplier checks go far beyond the average practices of manufacturers in the hardware and window industry today, explains Böhm. “We are far more critical than others. Our suppliers confirm this. But we know that this is quicker and better for us in the medium-term since we can forgo the time-consuming trial and error approach.” Here, Roto lives by the motto “Do it right the first time!”

Process reliability

The process reliability of a supplier is also examined in detail as part of the check. Ultimately, it must be ensured that the defined quality of the goods or raw materials to be supplied is ensured in the long term and not just for a brief period. This approach sometimes even means that we subject a supplier to verification practices and specify measuring tools with which they must record and document their product quality.

A greater focus on system relevance since 2020

A new introduction last year was an additional, particularly thorough evaluation of the economic situation of the “system-relevant” suppliers. “We precisely analysed which suppliers we would not be able to replace in the short or medium term, should they have to stop their operations or should they become bankrupt,” reports Böhm. Roto has been monitoring the group of companies identified as part of this analysis very closely since summer 2020. Every month, Roto reviews the most important economic key performance indicators, which are also collected from major credit bureaus. “We also have phone conversations with these suppliers on a regular basis, covering topics such as the effects of measures to protect against the coronavirus on production.”

Product quality that can be relied on in the long term

Clear specifications given to Roto Procurement by the company management have, through a

robust supplier development process, ensured long-term reliability of product quality for many years now, even in times of crisis. Every month, the plants worldwide measure how the services of a supplier are developing with regard to product and delivery quality in accordance with defined and uniform standards. “If quality, reliability or service deteriorates significantly, we intervene quickly to avoid any subsequent effects and minimise the quality risks for our customers.” However, if everything goes well and according to plan, Roto will also be amongst the supplier’s very loyal and reliable customers.

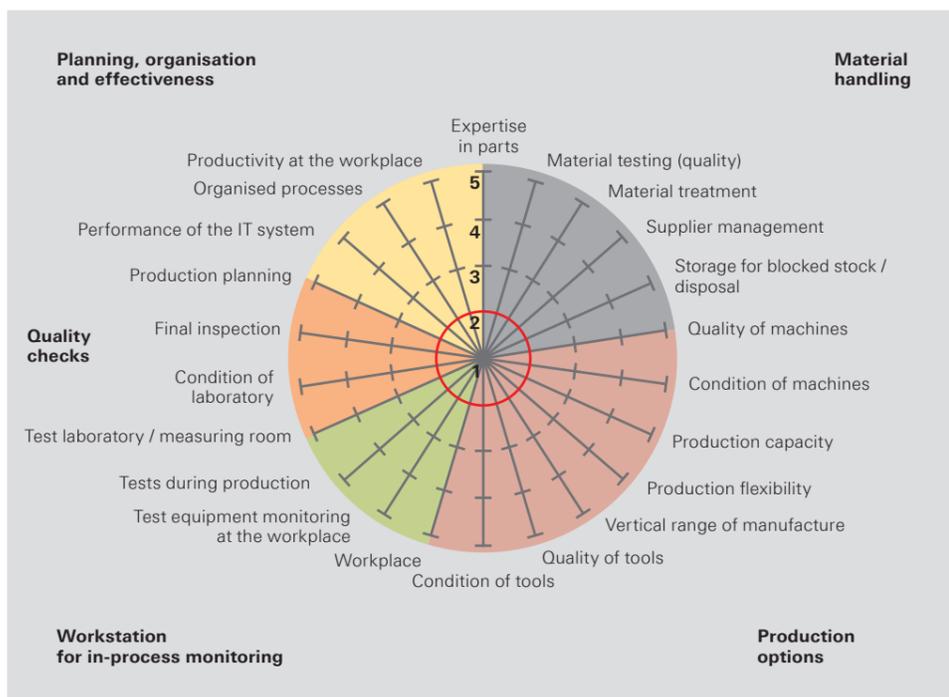
“The actual challenge is to produce the quality we expect at market-oriented prices.”

This is why Roto takes evaluating, selecting and managing suppliers very seriously. With the gratifying outcome that materials, components and services currently meet almost 100% of Roto’s objectives. He explained that quality assurance processes at suppliers have also increasingly become a matter of course over the years, as well as becoming more robust and thus affordable – resulting in measurable added value for Roto customers.

Commitment as the deciding factor

Böhm’s conclusion after many years working in procurement: “The strategic orientation of the supplier structure is a key requirement for outstanding product quality for any company. If a supplier is not viable, they will cost a great deal of money in the long-term.”

Mr Böhm, do you have a secret tip for selecting the right supplier? “If we assume outstanding product quality, you need to take a look at the commitment of your dialogue partner and the quality of the organisation in their company. If both are right, then the continual development of product quality at the highest level can also be ensured in the long-term.”



Roto always assesses the performance of potential suppliers using the same criteria as standard all over the world. As part of the supplier check, Roto auditors look at the supplier’s vertical range of manufacture, how they deal with resources and materials, at the quality of tools, the condition of production sites and the testing methods and laboratories.



Harald Böhm, Head of Strategic Procurement, Roto Frank Fenster- und Türtechnologie GmbH

Roto Door

A new team for top-rate service

■ **Company** Roto is extending its service for door manufacturers. Experienced specialists from sales and product management form the new expert team for Door Innovation. Together, they will support product developments by system suppliers and door manufacturers and promote central innovation processes at Roto.

Chris Dimou has overall responsibility for the work of the new expert team for Door Innovation. As President Roto Americas, he is a long-standing member of the management team at Roto Fenster- und Türtechnologie. He recently also took over central control of various international sales processes. On 1st January, he was appointed Director of International Markets Door & Door Innovation. As Head of Sales Door & Door Innovation, Tom Vermeulen has operational control of the work of experienced colleagues and of the collaboration between designers and product managers at Roto and door manufacturers and system suppliers.

Proven organisational form

“Roto has had very good experiences with the formation of expert teams,” explains Dimou, “as whenever manufacturers and system suppliers meet with highly specialised business partners, the result is not only products of outstanding quality but also incredibly lucrative, long-standing business relationships.” This is precisely the objective that is being pursued since Roto Window and Door Technology

already established a solid foundation for this with an extensive range of external doors.

A great deal of experience to hit the ground running

Vermeulen, who boasts many years of experience in companies in the door hardware and door lock industry, is excited about his team’s expertise: “We are able to set and pursue ambitious aims from the very outset because colleagues who have been working in the Door segment and at Roto for many years are working together as part of the team.” By forming the team, the organisational requirements have been put in place to enable the staff to devote their entire focus to collaborating with door manufacturers and system suppliers. From the initial product idea to the market launch, in future the staff in the form of an expert task force will support anyone who wants to develop innovative doors.

International preferences considered

The Door range currently includes multipoint lockings, main door hinges and thresholds. These are complemented by additional products such as gaskets, lever handles and cylinders. The new team of specialists will develop hardware solutions according to the specific preferences of purchasers on different continents based on this product range. In this way, customer-specific product developments and applications of existing components should be made available in a short space of time.



The product-defining characteristics of the entire Door range include security, energy efficiency, comfort and design.

➤ **Overview of the Roto Door product range**
www.roto-frank.com/en/doors



Chris Dimou,
Director of
Internationale Markets
Door & Door
Innovation



Tom Vermeulen,
Head of Sales
Door & Door
Innovation

Deventer, Russia

Sought-after industry partner

■ **Company** In December 2005, the Deventer Group registered a subsidiary in Yurovo, a small town 60 km south-west of the Moscow city centre. A mere two months later, this new site began production of sealing profiles.

Thanks mainly to the established trading company TBM, many window and door manufacturers were already sourcing sealing profiles from the Deventer factories in Germany and Poland at that time. Deventer Managing Director Natalia Ogarevskaya is convinced that, both then and now:

“Deventer stands for quality and is therefore highly respected.”

Many Russian building element manufacturers have long been aware of the benefits of Deventer sealing profiles from their own collaborations. “Up to now, we have mainly supplied producers of timber and PVC windows as well as timber and steel interior doors. However, with the support of our colleagues in Roto Sales, we are also establishing ourselves among fabricators of aluminium systems,” Ogarevskaya adds, describing the demand situation.

For timber interior doors in particular, the Yurovo location has designed a large number of custom profiles, since the systems generally

used in Russia differ substantially from those used in other sales regions of the Deventer Group. “The quality of these developments, as well as the range of colours in which we can produce sealing profiles, have formed the basis for our success in the region.”

Technical expertise is called for

Customers in Russia have since come to value highly the flexibility and speed with which Deventer is able to develop custom sealing profiles for new window and door systems. They can access the technical expertise of designers with decades of experience in four European Deventer locations. “This special feature of our company organisation, together with our trading partner TBM, has enabled us to sell gaskets in all regions of Russia, as well as in Kazakhstan and Belarus,” Ogarevskaya explains.

Her team is able to flexibly adapt their services to suit the specific requirements of each window or door manufacturer, providing reliable sealing profiles with the mutually agreed level of quality. “Since our integration into the Roto Group in 2016, the reputation and recognition of the Deventer brand has likewise grown more rapidly. The demand for consultation and Deventer quality is increasing. My team is highly committed to optimising delivery times, despite the sometimes huge distances and multiple stages of temporary storage prior to delivery involved.”



Open exchange

The consultants of the Russian Roto Sales Division now also collaborate closely with Deventer. “We are constantly exchanging information with our colleagues,” Ogarevskaya reports. Thanks to regular training sessions, they are able to effectively judge which customers would benefit from consultation by Deventer and an individually optimised gasket for their products.

“For window manufacturers, this means that we create mutual added value, since they receive advice for achieving perfectly coordinated hardware and gaskets. In the opinion

of our long-time customers, ‘german made’ means reliability, precision and innovation. This is likewise what Roto and Deventer stand for.” www.deventer.ru



Natalia Ogarevskaya,
Managing Director
Deventer Russia

Yawal SA, Poland

In focus: building elements with concealed hardware

■ **Aluminium** For almost 25 years, Artur Blukacz has worked in product development at the Polish system supplier Yawal. He spoke with Roto Inside about the developing demand for aluminium building elements in the Central European and Eastern European markets.

Yawal SA, based in Herby in Poland, is currently one of the largest manufacturers of heat-insulating aluminium profiles in Central and Eastern Europe. It boasts around 700 employees and supplies more than 1000 customers in 17 countries. The Yawal factory processes more than 25,000 tonnes of aluminium each year. Since the founding of the company in 1993, it has based its growth on an awareness of trends and quality in its product and system development.

“When I joined Yawal, an installation depth of 50 mm was the standard approach.”

Blukacz, who is currently the Head of the Development department at Yawal, still clearly remembers the days when thermal separation with a width of 12 mm was the ‘gold standard’. “We now offer windows with an installation depth of 102 mm and thermal separation with a width of 64 mm.” These key figures alone clearly indicate the challenges faced by aluminium system suppliers over the last two decades.

Thermal insulation meets durability

Blukacz and his colleagues are very proud that Yawal profiles are used to create aluminium windows that customers rate as premium products. “With our windows, we are able to easily achieve the passive house standard while also offering impressively robust and durable elements, not to mention the benefits of the design we can achieve using aluminium.” Yawal prefers to use narrow profiles and concealed window hardware and door hinges.

Concealed hardware for the best possible design

Yawal has worked closely in partnership with Roto since its founding. Both companies strive to achieve regular, intensive mutual exchanges, Blukacz reports. “The Roto AL Designo concealed hardware and the Roto Solid C door hinge are exactly what we have been looking for: concealed, durable, well-designed hardware technology.” Customers were impressed with the introduction of the new door hinge two years ago. The main door models in the Yawal Prestige range were considered to have received another substantial upgrade:

“Solid C makes good main doors simply even better.”

Yawal is one of the most important aluminium-processing companies in Central and Eastern Europe.



Extrusion

“Its wide range of applications makes this hinge a true all-rounder in our view,” Blukacz states. It reliably ensures that even doors weighing 140 kg are easy both to open to an angle of up to 110°, and to close. The hinge also supports burglar-inhibiting entrance door designs in accordance with RC 2. The uninterrupted gasket level minimises heat losses.

Easy to install and versatile

“Production and installation of heavy aluminium doors are made easier when working with Solid C, as it allows leaves and frames to be set up at different workstations. The routings for the hinge and lock are created using the same tool. This avoids the need for a tool change and therefore saves time,” the experienced specialist adds.

“The fitters are also particularly impressed with the FixClick function for quick and secure mounting and removal.” The height adjustment between -2 and +4 mm and the 3D adjustment also play a significant role in ensuring that on-site work is as convenient as possible. Because all hinges are easy to access, it is possible to adjust the height and gasket compression (± 1.2 mm) as well as perform lateral adjustment (± 3 mm) at a later stage without any problems. The self-lubricating bush in the door hinge means that no door maintenance is required.

For heavy and large windows

The benefits of the Roto AL Designo concealed window hardware are not limited solely to its appearance. “We appreciate the leeway that this hardware product range provides us,” Blukacz states. This makes it easy to keep up



An inside look at automated production

Photos: Yawal

with the continuing trend towards larger and heavier window sashes. Sashes using Roto AL Designo regularly reach up to 180 kg, while those using Roto AL reach up to 160 kg. “We are also extremely glad that, as of this year, special approval is no longer required for installing particularly high sashes. The approved standard application range of up to 3000 mm in height has arrived at just the right time. For the commercial sector in particular, elements approaching this height are more and more in demand.”

Tightly sealed sliding system with high operating convenience

Development of a new Yawal sliding system will begin shortly. “Using Roto Patio Inowa, of course,” Blukacz clarifies. “In our view, this hardware is the absolute best on the market in terms of sealing, operating convenience and design.” Blukacz has seen at trade fairs, for example, that end consumers reacted extremely positively to sliding doors with this concealed hardware. They praised its easy and intuitive operation. However, before the introduction of the new sliding system, the Yawal Sales department has another project planned.

The latest product: slim ventilation flaps

The Polish aluminium system supplier is currently in the process of launching very slim, tall ventilation flaps using Roto AL Designo hardware. Architects and facade planners, with whom Yawal regularly collaborates, immediately

recognised the benefits of these products: natural ventilation in high-rise buildings with no risks or significant heat losses. Blukacz is convinced:

“Ventilation flaps are an important issue for the future.”

He ends our conversation by summarising that, for more than two decades, Yawal has worked hand-in-hand with Roto as it has continuously expanded its product range. “We introduce innovations very quickly, as they allow us to meet the extremely high expectations of our customers. We also work flexibly to respond to the individual wishes of our customers. There is actually nothing that we cannot make.” Roto has played an active role in both of these aspects – speed and flexibility. “Which is why both companies will continue to make history together.” www.yawal.com



Artur Blukacz,
Director
Research and
Development,
YAWAL S.A.



➤ **Product information for the Roto Solid C concealed door hinge**

www.roto-frank.com/en/roto-solid-c-c7140

ProVia, USA

Growth with RotoFasco



The defining feature of outward opening windows equipped with X-Drive hardware is that they are operated via crank handle. This hardware technology is not only currently the second most commonly used opening type in North America, but also the market segment displaying the strongest growth. Photo: ProVia

X-Drive locking



■ **Timber | PVC** The collaboration between ProVia and Fasco began in 2007. When the Canadian hardware manufacturer became part of the Roto Group in 2012, the product developers at ProVia in Sugarcreek, Ohio, used this as an opportunity to consider Roto hardware solutions.

"Of course we were familiar with the German brand Roto and its good reputation before then," recalls Troy Page, Director of Purchasing at ProVia. "But up until 2012, there had simply been no personal contact. When this changed, we soon realised that this collaboration could result in opportunities for our product and company development." In particular the X-Drive hardware produced by Roto Frank of America in Chester quickly became one of ProVia's most important components and one that is used in large quantities.

"The X-Drive product range for the very highest quality."

It's not for nothing that ProVia was awarded the "Energy Star Award" by the readers of the "Remodeling Magazine". "Homeowners who simply want something out of the ordinary come to us," reports Page. "Higher product quality but also better service, diligence and dedication." And that doesn't just concern the building element itself. ProVia received extremely positive feedback, for example, when special transport boxes were introduced which offer the best protection for a window or door during transportation from the factory to the construction site.

Roto hardware for all product lines

ProVia now uses hardware from Roto's European factories in addition to the X-Drive range and components from RotoFasco Canada for Sliding and Side-Hung windows. "You will now find hardware technology from Roto in all four product lines of our window range – ecoLite™,



Aspect™, Endure™ and Aeris™." Firstly the outstanding, consistently high product quality and, secondly, the impressive focus on customers at Roto Frank of America are responsible for this. "In 2020, there were many changes at ProVia that took just as much effort to adapt to as the consequences of the pandemic," reports Page. "Roto recognised this and supported us in many ways. Consistently and with a clear outlook for the future."

Traditional handicraft

ProVia firstly established an excellent reputation for itself as a supplier of tailored and traditionally crafted timber windows and doors for renovations. To be able to expand the services for homeowners, in 2009 and 2011 founder and owner Bill Mullet acquired companies who produced facade panelling and metal roofs that are also required for renovating many homes in the USA. Nowadays around 500 members of staff work in ProVia's five factories.

Expansion of capacity

After the turn of the millennium, ProVia began expanding the production of main doors and

sliding systems made from PVC, fibreglass and steel and introduced increased automation of PVC window production. Page describes this development as follows:

"Traditional handicraft and modern technology have been closely connected since then."

To this date, the aim has been to transfer the quality philosophy, which has been a feature of the work undertaken in ProVia's timber window production for decades, into modern, automated production. "Fasco and Roto understood this and were committed to supporting us on this journey."

ProVia has undergone constant change since the company was founded by brothers Bill and Andrew Mullet in 1977. The headquarters, established in 1984, were renovated and expanded in 1993, 2001, 2005 and once again in 2012/2013. ProVia now delivers to customers in 23 states of the USA. "Diligence in production, a passion for details and real customer service, as well as „care for all those who work at ProVia, are key pillars of our company philosophy," explains Page. "We take values such as integrity, humility, respect and compassion extremely seriously, as well as a focus on striving for good solutions and forward-looking, sustainable business activities."



X-Drive crank handle

The Aspect Patio Door sliding system from ProVia features the RotoFasco Secura 9300 handle and a unique bolt style RotoFasco 2 point mortise lock. Photo: ProVia

Time for design and quality

To date, what is important to ProVia is not rendering manual work unnecessary through the use of machines but rather integrating technology which enables employees to usefully invest their expertise in design and quality assurance. The quality of the components and machining operations is monitored at various points in the production process. In addition to being examined for visible defects, each element is tested for proper operation before being packaged for transport.

The purchasing staff also take their responsibility for quality extremely seriously. "On a regular basis, we closely examine the quality provided by a supplier. In doing so, we are very exacting, but still fair and transparent. We agree what has to be ensured with every supplier." ProVia and Roto are similar in this respect too: "Like our partner Roto, we consider the goal-focused collaboration with suppliers as an important pillar in the work we do for our customers."

www.provia.com



Troy Page,
Director of Purchasing,
ProVia



➤ **Roto hardware systems for North American windows**

www.roto-frank.com/en/northamerica

Renoven, Spain Partnership in action

■ **PVC | Aluminium** Renoven, a manufacturer of PVC and aluminium building elements firmly established in Northern Spain, was founded in May 1994 by José María Ochoa in Berrioplano near to Pamplona. He has since been responsible for managing the company through to the present day. For more than a quarter of a century, he has cultivated a close and successful partnership with Roto.

Ochoa recalls that, as early as during the founding of his company, he benefited from substantial support from the Roto Organisation. The same support was available when he established a new production facility in 2018. "With Renoven, I have concentrated on manufacturing highly insulating building elements from the very beginning," he reports. "This formed the basis of the successful development of Renoven, but also presented us with the challenges of managing the often substantial growth we have enjoyed through every year since our founding."

Making the leap to automated production

Eventually, it was decided that the time had come to further increase production volume by automating more of the production processes. Automation was also seen as a good way to improve quality assurance. The company therefore began planning construction of a new factory.

"Windows with consistently high quality – that remains our central concern."

In this important phase of the development of his company, Ochoa again looked for – and found – support from Roto. "The fact that all hardware was optimally designed for fully automatic processing made it easier for us to commission the new facilities," he explains. Roto brought a great deal of expertise to the planning of the factory and its processes. "And the new Roto NX Tilt&Turn hardware," Ochoa adds, pleased.

Increased efficiency with Roto NX

"We were one of the first manufacturers in Spain to switch over to Roto NX, which enabled us to utilise the full potential of its increased efficiency in our production processes," the businessman emphasises in our interview. Renoven owes a great deal to the technical support provided by Roto. This is a significant reason why, over more than 25 years of operation, the company has not once considered changing their hardware supplier. Ochoa sums up his experiences in a single sentence:

"Roto provides me with everything I need."

This statement is intended to apply both to the product range and service. He is also impressed with the speed with which his hardware partner is able to "get underway". He considers the delivery performance of Roto to be outstanding, which is particularly important for a company like Renoven that has established highly efficient and lean processes.

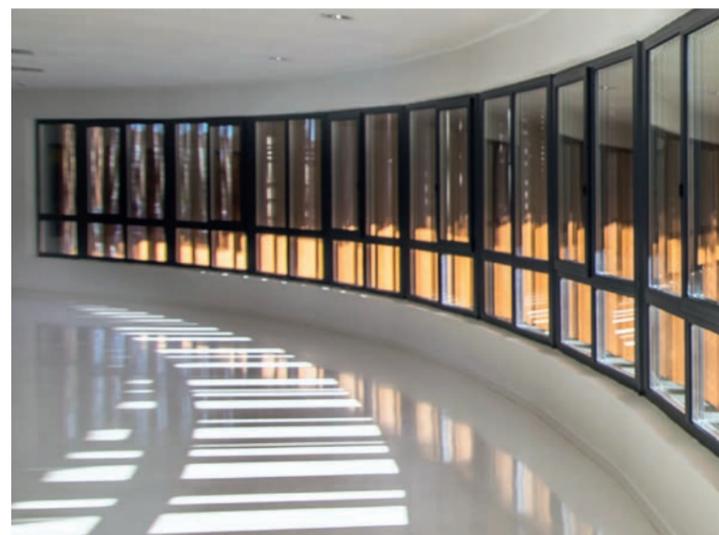
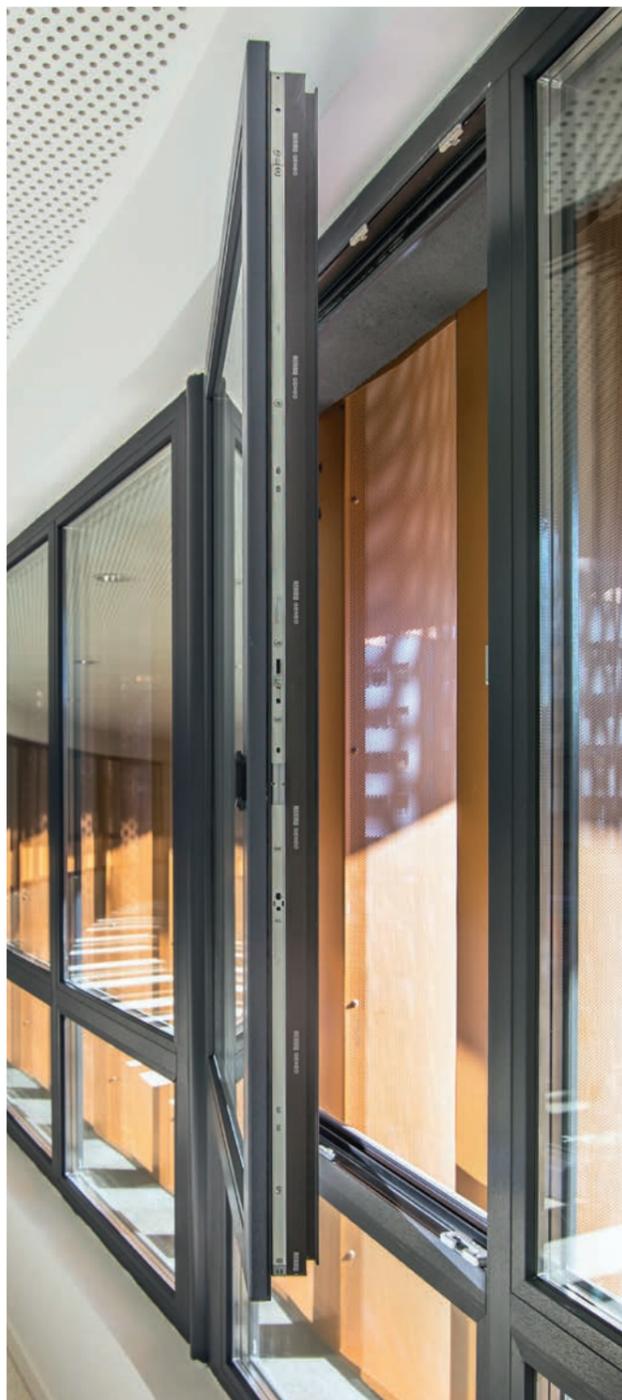
Tightly sealed sliding systems for the north of Spain

From the very beginning, Renoven has supplied not only windows and main doors, but also aluminium and PVC sliding systems for the north-east of Spain. This presents a particular challenge, since demand for tightly sealed, well-insulated building elements is especially high in this region. The province of Navarre, where the Renoven headquarters are located, is one of the pioneering regions for passive house construction in Spain. "Faced with cold winters and hot summers, our customers use windows that feature cutting-edge thermal insulation," Ochoa states with satisfaction. "Working together with Roto, we are able to meet this demand."

www.renoven.com



José María Ochoa,
Founder and
Managing Director
of Renoven



The Tilt&Turn windows used in the Europa Congress Palace in Vitoria-Gasteiz were made in the Renoven production facilities and are equipped with Roto NX. Photos: Renoven



↗ **Economical, safe, convenient, design-oriented: Roto NX at a glance**

roto-nx.com/en

Questions about the current situation

The Spanish market

In his role as Roto Managing Director, Spanish-born Francesc Gimeno also monitors the development of the construction industry in the Southern and Western European markets very closely, and takes a look back over the last few months.

Roto Inside: Mr Gimeno, what was the situation in the Spanish building element sector at the start of the year?

Francesc Gimeno: Extremely mixed, but by no means hopeless. The growing interest in renovation of private homes is strongly influencing the market for windows and doors in Spain as well. More and more homeowners are trying to reduce their energy costs using well-insulated building envelopes. This interest has not abated even through the year of the coronavirus pandemic, but building work obviously came to a standstill during lockdown. It is difficult to assess how long the slowdown of construction and renovation of hotels will last as a result of the economic effects of the pandemic on the tourism sector that is so important for Spain.

Roto Inside: What do manufacturers now expect from Roto as their partner?

Francesc Gimeno: At present, manufacturers of windows and doors are likewise rarely able to make long-term plans. It is therefore particularly important for them that Roto can provide flexible deliveries that are always on time and complete. In order to secure the future of the industry, it is now more important than ever before that every company displays absolute professionalism. The quality of products must be kept consistently high. Manufacturers need a range of hardware solutions for windows and doors that meets both the increasing requirements for thermal and sound insulation and the demand for effective burglary protection.

Topics such as the integrated night ventilation or RC 2-secured tilt opening of the Roto NX have received much more attention than before due to experiences with the coronavirus, since natural

ventilation has become a renewed point of focus. And the coronavirus has encouraged an additional trend: people in towns and cities are more sensitive to noise. People sitting by themselves when working from home are acutely aware of environmental noise and can quickly determine whether a window provides good or poor sound insulation. The high level of sealing that can be achieved with hardware systems such as Roto NX, Patio Alversa or Patio Inowa has gained a new and increased importance for many people and planners due to the events of the last few months.

Roto Inside: So there were some entirely positive effects on the sector due to the coronavirus situation?

Francesc Gimeno: Yes, there were some. Many customers have used the time during the lockdowns to think about their objectives and demand trends. We are extremely happy that they recognise Roto as a valuable partner for discussion during this process, and that we are able to work together to create new product concepts for building elements made from all frame materials. Interest in our hardware solutions for windows and doors as well as the recently launched Deventer sealing profiles is high in Spain.

Roto Inside: And what has been the biggest challenge for you?

Francesc Gimeno: Establishing new ways to maintain contact and provide information and consulting. Our customers very quickly got to grips with the new normal and have kept in touch with their customers and with us digitally.



Francesc Gimeno,
Managing Director for Southern
Europe, Western Europe and Africa,
Roto Frank Fenster- und
Türtechnologie GmbH



The Palacio de Congresos Europa in Vitoria-Gasteiz, south of Bilbao in Spain, features impressive green facades and modern comfort.

Tightly sealed, comfortable and aesthetically pleasing

Rehau sliding system with Roto Patio Inowa

■ **Plastic** The “smart” advantages of the “Roto Patio Inowa” hardware product range have won over another renowned producer of PVC profiles. Rehau launched the new Synego Slide retraction sliding system at the beginning of the year.

Large-scale sliding elements, with their compact opening method, have been popular for some time – particularly in view of the fact that residential units themselves are becoming smaller and smaller. Rehau therefore sees great market potential for the design with a depth of 80 mm suitable for elements up to 400 cm wide and 260 cm high.

For thermal insulation and sealing

Syneo Slide profiles can incorporate glazing up to 51 mm thick. Thanks to the use of the Roto Patio Inowa smart concealed hardware for tightly sealed elements, Synego Slide

profiles can be expected to provide excellent thermal insulation as part of energy-efficient design. The hardware presses the circumferential TPE gasket of the moving sash tightly against the frame profile of the stationary section when closed. The closing movement, circumferential gasket and active locking points in the mullion ensure long-lasting tight sealing, even in extreme weather conditions. At the same time, the elements can be moved comfortably with minimal effort thanks to the closing movement of the sash perpendicular to the frame profile.

Perfect technology kept secret

All hardware components can be installed concealed in the slim Synego Slide profiles and are therefore not visible from outside when the sash is closed. Even when the element is open, the visual harmony is fully maintained thanks to delicate centre closers with coloured cover caps. The hardware components do not protrude into the open room.



Renoven provided modern PVC energy-saving windows for this residential building in Pamplona in 2019.



Syneo Slide by Rehau

Photo: Rehau



Invisible: the centre closer in the mullion of the Roto Patio Inowa



Delicate mullion strikers with cover caps



➤ For more information about the intelligent hardware with concealed technology for tightly sealed sliding doors

www.roto-frank.com/en/video/inowa

Van de Vin, Netherlands

Tightly sealed timber sliding system

■ **Timber** Talks began between Van de Vin, one of the Netherlands’ leading manufacturers of timber windows, and Roto in 2018. Their shared aim was to design and produce a tightly sealed sliding system with a modern design.



The vinSlide sliding system was tested in the International Technology Centre ITC in Leinfelden-Echterdingen.

Photo: Van de Vin

The management of Van de Vin discovered the Patio Inowa system for itself at the FENSTERBAU FRONTALE trade fair in 2018. The management was looking for hardware which could be used to manufacture sliding systems which are tightly sealed against wind and water and offer burglary protection up to class RC 2. Not only do the prototypes developed with Roto meet these requirements – they are also particularly easy to operate. Frank Jansen, Operational Manager at Van de Vin, recalls the joy on the faces of his team members:

“It really fired our enthusiasm.”

For the purposes of product quality and design, the company decided to involve Professor Bert Blocken from the Eindhoven University of Technology in its in-house development work. He contributed his expertise in order to determine the ideal position of the TPE gasket from Deventer and to guarantee safe drainage of moisture from the profile construction.

After this consultation, Frank Jansen’s team produced 3D drawings which allowed them to make further carefully considered optimisations.

In summer 2020, the first version of the vinSlide sliding system to be ready for series production was tested in the International Technology Centre ITC in Leinfelden. This also gave rise to other approaches for improving the system, reports Jansen.

“We received generous support from the ITC.”

Van de Vin now aims to compete with aluminium sliding systems with vinSlide. Frank Jansen is certain that: “Our system is more affordable and appeals to customers who would like to bring a little bit of nature into their homes with timber windows.” From his point of view, the new system is also superior to many established Lift&Slide doors. “Together with our trade partners, we will prove to planers and builders that we are offering a tightly sealed, user-friendly and pioneering system in the form of vinSlide.”

www.vandevin.nl



Frank Jansen, Operational Manager, Van de Vin ramen en kozijnen



Components from the Roto Safe E range:

- 1 Cable junction with integrated power supply unit
- 2 Electromechanical multipoint locking with a quiet and efficient motor
- 3 Deadbolt switch contact
- 4 Finger scan

Plug & Play with Roto Safe E Easy cable connection

■ **Door** The components in the Roto Safe E range have been designed to work smoothly together, ensuring that they can be quickly and easily installed into a main door via Plug & Play. Novel, easy-to-install cable junctions are available for flexible combinations. In addition, a deadbolt switch contact that can be retrofitted onto existing doors to monitor the door status has been added to our product range.

Alexander Kohl, Product Manager for the new product, explains this newest member of the Roto Safe E product range as follows: "Roto is constantly working to ensure that installation of electronic products for door manufacturers is as convenient as possible." The cable junctions, for instance, provide quantifiable time savings when connecting cables for a door. Two different cable junctions are available in each case for the leaf and frame, and can be installed in any combination to suit the profile material and installation situation. The cable junction with integrated power supply unit is installed in the door frame. This means that a 230 V connection is the only other thing that needs to be provided for installation of the door on site.

For all frame materials

The new cable junctions are available for main doors in PVC, timber and aluminium. Once they have been installed on the leaf and frame side, the cable is routed to the motor lock, and is then simply plugged in. The cable is connected to the access control system from the motor. This enables easy and safe production of automated main doors, and minimises the risk of installation errors.

The deadbolt switch contact from the Roto Safe E range is used to monitor the door status at the main deadbolt. It has VdS approval (class C), can be integrated into burglar alarm systems and can also be retrofitted into all standard frame components.

Two variants

Roto offers two multipoint locking systems, which can be installed using the new cable junctions: with the Roto Safe E | Eneo A version, the automatic bolts extend once the door is closed. From an insurance point of view, the door is considered locked immediately without the use of a key. The powerful yet quiet motor ensures a particularly quick unlocking and opening process. It is optionally available with a radio receiver, enabling the door to be opened via a hand-held transmitter.

Roto Safe E | Eneo CC is a multipoint locking system which opens and locks the main lock and additional lockings fully electronically. A radio receiver is integrated as standard. Thanks to the convenient opening, locked main doors can also always be opened from inside using the door lever handle. This means that the house is secure even if the occupants need to leave in an emergency, while the automatic locking offers constant protection against burglary and theft. A day / night changeover switch allows occupants to deliberately switch the automatic closing mechanism on or off – an important option for main door systems in apartment buildings.

Suitable for various access control systems

Both variants can be combined with a variety of access control systems: the hand-held transmitter for the Roto locks has a range of up to ten metres. The finger scan with LED lighting and stainless-steel front plate offers an especially high level of security. An app for Android and iOS devices controls settings and user management. The "Phone & Code" access control system makes it possible to open the door either with a mobile phone via the Bluetooth interface and by pressing a button, or by setting up a numerical code.

Imprint

Publisher

Roto Frank
Fenster- und Türtechnologie GmbH
Wilhelm-Frank-Platz 1
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Responsible as defined by Section 55 (2) of the German Interstate Broadcasting Agreement (RStV)

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Roto Inside 47 is published in Dutch, English, French, German, Hungarian, Italian, Polish, Romanian, Russian and Spanish.



➤ **Electromechanical multipoint locking for doors: Roto Safe E | Eneo A**

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