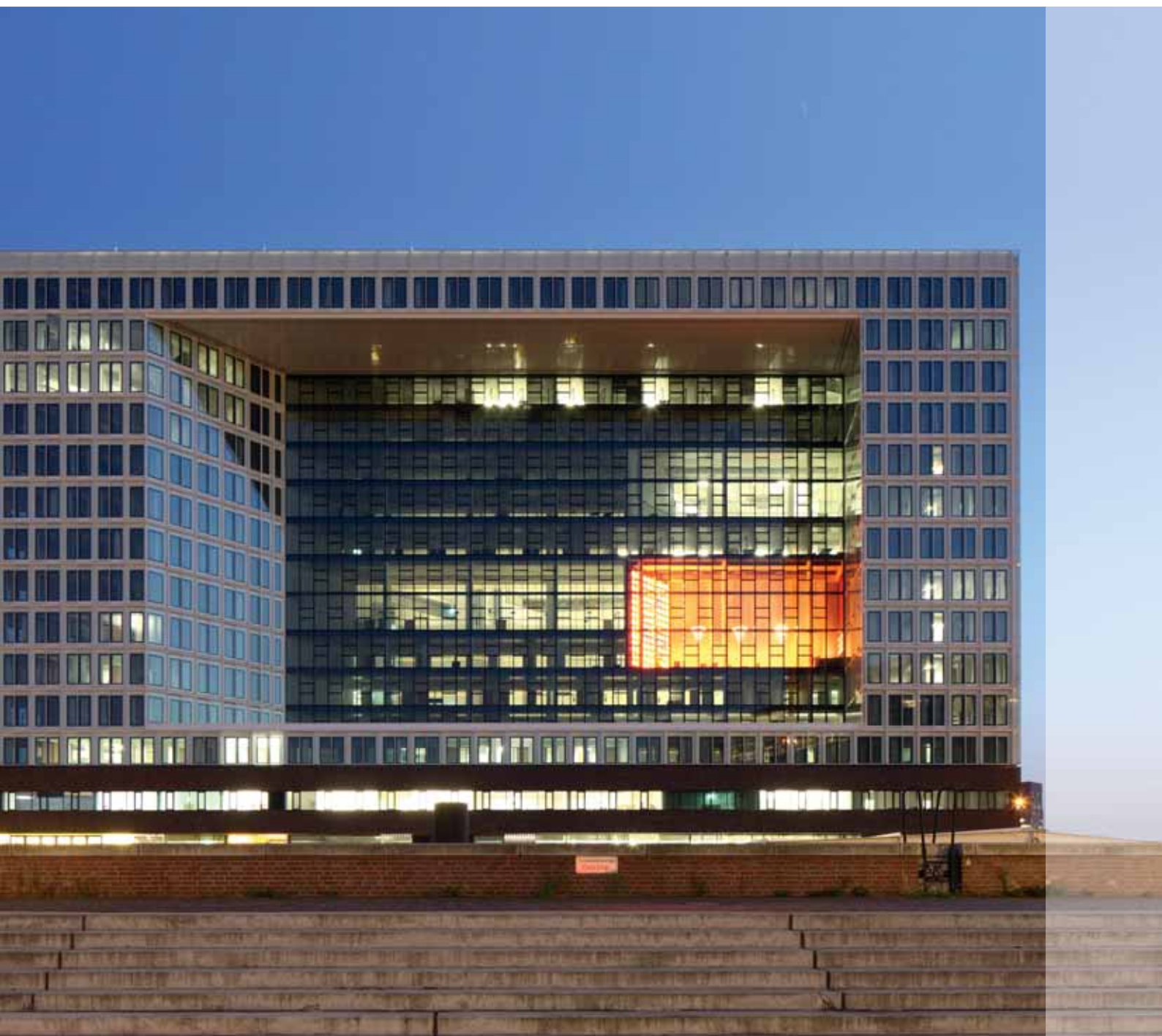


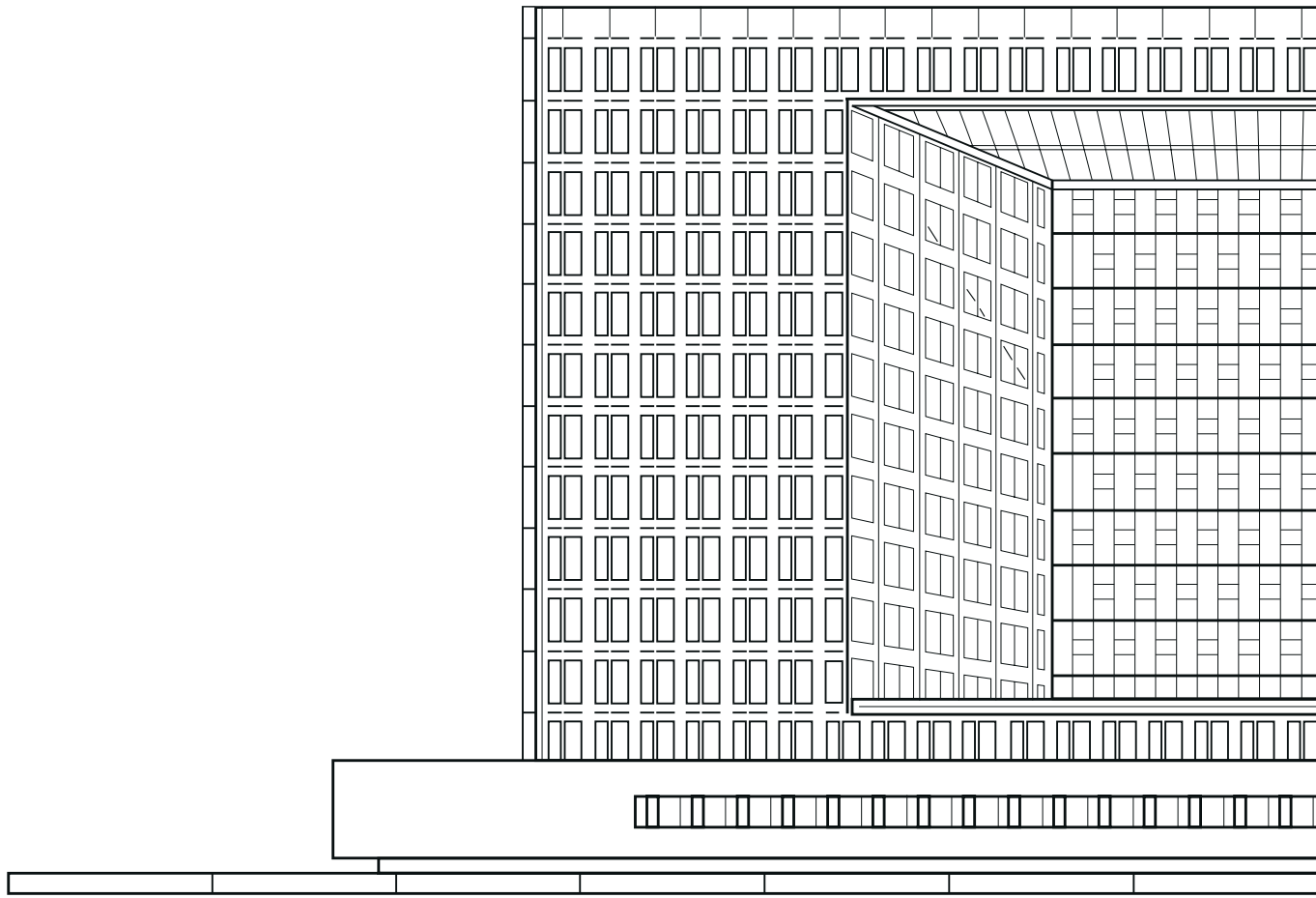
Window and door technology



## Roto AluVision

Close to the customer: Make visions reality.





## Profit from our proximity to the customer Realise your visions successfully

Today, almost any project is feasible with the Roto hardware technology for aluminium windows and doors. In a short time, in outstanding quality and at favourable terms. Exactly like our customers expect.

In order to continue fulfilling these high customer expectations in the future – or even better, to surpass them – we will continue to rely on proximity to the customer and total focussing on benefits to the

customer. With us, you the customer are right at the centre – all the time, with no limitations.

### **Proximity to the customer – the basis of every innovation**

As well as careful market analyses, discussions with our customers are also essential during the product development process. In these we learn at first hand what motivates planners, system suppliers and win-

dow fabricators, what demands they place on aluminium windows and doors and what they expect from our hardware.

This enables us to continuously improve our products and to develop completely new types of solutions – always on the basis of current customer requirements.



### **Proximity to the customer – making success plannable**

We have tailored not just our product range but also all processes and performances precisely to our customers' requirements. This applies to availability, logistics and sales as much as to our services such as market support or comprehensive support. In this way we ensure that customers always receive the optimum product and that it is deliv-

ered to them in exactly the required quantity and quality, and at the agreed location. To allow the customer to produce competitive systems both reliably and economically.

### **Proximity to the customer – you too can profit from it**

On the following pages, you can experience Roto AluVision up close, experience at first hand how you

can profit in very real terms from our proximity to the customer – and how you can succeed in realising your client's visions successfully.

For example with application-specific product innovations or the new AluVision Solution Centres, in which we bring together concentrated specialist aluminium knowledge and many years of experience to benefit you.

# Roto AluVision

## Comprehensive hardware solutions for aluminium windows and doors

### Design freedom without boundaries

What requirements do project planners place on aluminium windows? What affects property developers, builders and tenants alike?

We are in constant dialogue with our customers, we know and understand their individual needs and we today present solutions for current and future tasks. Hardware for large windows with up to 300 kg

sash weight that can be manufactured particularly efficiently.

Innovative hardware surface-finishes that don't just look good, but moreover withstand corrosion.

Discover AluVision – aluminium competence from Roto.



### All opening types for windows, doors and facades

With Roto AluVision there are no limits to your design creativity. Roto offers you an extensive product range, that includes all conceivable opening types and also takes individual conditions in international cultural areas into account.

And nearly as important: the reliability, precision and long-life cycle of the hardware. Look forward to Roto AluVision; combining quality and state-of-the-art technology with maximum security and attractive design.



### **A suitable solution for every customer requirement**

There's more behind Roto AluVision than meets the eye. We have modified and extended our product range so that you can react even more flexibly to the markets' requirements.

To be specific: suitable fenestration technology for every project, regardless of whether you are planning within a large or small financial framework. This is made possible by the Roto modular design principle.

With the modular design principle, our hardware cannot only be inte-

grated in almost all conventional profile systems – it also can be individually tailored to suit customers security and convenience needs; segmenting them based on price and performance.

With the broad product range and the services of our AluVision Solution Centres you meet all challenges. Absolutely!

## Roto AluVision Solution Centre

In this way, you bring even the most difficult projects to economic success



For extreme dimensions and weights, as well as for completely new designs or innovative functions of aluminium windows and balcony doors – with Roto AluVision you realise your customer's visions. Fast, safe and efficient.

From now on it is more simply and more successfully for you: with the new AluVision Solution Centres, our competence centres for particularly demanding building projects.

### **Unique assistance**

Construction projects play an important role in the aluminium sector. To fulfil the customer's demands in comfort and functionality, speed and often individual special productions are needed. We will support you in development and production of those systems and design solutions that are efficient and at the same time economical.

### **Your aluminium project in good hands**

There are Roto AluVision Solution Centres throughout the world. This is where specialists work to develop innovative, customer-specific solutions. Competent technicians, sales staff and product managers who are also very familiar with regional demands and who will provide you with competent advice on technical, production-related and commercial matters. First we analyse your task and then work out the optimum solution through intensive collaboration with you. When doing

this, when possible we fall back on the Roto AluVision standard range and adapt the components to your requirements. This saves you both time and money.

### **Top quality at attractive conditions**

We produce the special solution developed for you in any desired series size – if necessary as a single unit – in our modern production facilities.

It is delivered in customer-specific packaging, including all the necessary documentation and detailed installation instructions to make fitting both quick and safe. And it goes without saying that what applies to all Roto products also applies to our custom products. For all products, you can rely on high quality and a good price-performance ratio at all times.



# Roto AluVision T 300

## Economically efficient hardware system for aluminium windows and balcony doors

### Simply well made: Roto AluVision T 300

Often an economical, universally applicable hardware solution for all Turn-Only and Tilt-Only applications is demanded. But without compromising the quality. And Roto has developed the AluVision T 300 exactly for this reason. The economically priced hardware system extends the product range for light and medium-weight window sashes, in particular for the southern European and Asian markets.

Thanks to preassembled, clampable components, the installation time

and expense is considerably reduced. Roto AluVision T 300 is the entry-level solution for many applications. The "T" in the product name stands for "Tilt" and "Turn", i.e. for the Turn-Only and Tilt-Only applications.

### Straightforward installation

Roto AluVision T 300 inspires with proven Roto technology.

For instance the new corner drive with toolfree insertable retaining fork. In addition various adjusting possibilities are available such as lateral adjustment while the sash is still hinged.



Corner drive with retaining fork



### Ideal for Turn-Only and Tilt&Turn solutions

A common requirement is to implement simple standard openings. Roto developed a uniform, aesthetically attractive hinge side for all Tilt&Turn, Turn-Only and Tilt-Only windows with sash weights up to 80 kg. Left or right handed sashes? As you wish. Economical and practically universally applicable.

### Your advantages at a glance

- For sashes up to 80 kg
- Time-saving installation due to clampable hardware
- Opening types: Tilt&Turn, Turn-Only and dummy mullion sashes
- Economically priced product in Roto quality
- Attractive handle design



## Roto AluVision T 540

### Universal hardware for aluminium windows and balcony doors up to 300 kg

#### Perfect for all opening types and window shapes in facades

Roto AluVision T 540 is the high-quality all-rounder. Whenever maximum security, ease of operation and durability is requested, the AluVision T 540 hardware system is first choice: for nearly all conceivable window shapes, sizes and standard opening types of Turn-Only and Tilt&Turn solutions up to 300 kg.

#### Technology with maximum security

As a pioneer of innovative fenestration technologies, Roto sets high standards – also in security.

High-quality locking cams secure the sash up to RC 3 in accordance with DIN EN 1627–1630. Roto offers a suitable lockable security handle to go with this.



#### Hinge sides for heavy sashes

Special project solutions often demand large and heavy sashes – This is no problem for Roto AluVision T 540. Here you find Turn-Only sashes up to 300 kg as well as Tilt&Turn sashes up to 200 kg as tested series-production solutions – this is unique on to the market. This means that our hardware system not only allows large glazed surface areas, but also the use of heavy safety glass.

#### Your advantages at a glance

- For sashes up to 300 kg
- Less components due to preassembled stay bearing pin and pin retention
- Modular design principle (central locking system T 540)
- Appealing aesthetics as the bearings are flush with the sash, no visible screws
- Extensive accessories as braked turn-restrictor with end position damping

#### Barrier-free solutions

such as this balcony door can be realised without problems with Roto AluVision T 540

# Roto AluVision Designo

## Concealed hardware for aesthetic aluminium windows and balcony doors



**Convenient installation of pivot rest and stay bearing**  
thanks to hexalobular socket T20

### **High-quality architecture can be realised at any time**

Whether it's for standard sash formats or individual architecture solutions, AluVision Designo provides the perfect solution for every challenge. A particular challenge for the hardware system are very high and narrow sash formats. With the coupleable rebate hinge, maximum tightness of the sash on the hinge side can be achieved even with fully concealed hardware systems.

The optional braked and dampened turn-restrictor for limiting the opening width offers you completely new ranges of use in order to meet the highest requirements.

### **High sash weights of up to 150 kg is not a problem!**

Large sashes are aesthetically beautiful, but are heavy at the same time. Sash weights of more than 100 kg are not uncommon. Unobtrusive hardware is therefore in demand for these "elegant heavy-weights".

The solution: Roto AluVision Designo – the completely concealed hardware system for large and heavy aluminium windows up to 150 kg. Your advantage: only one additional special component (also invisible from the outside), is enough to achieve the highest weight stability in conjunction with the standard hardware.

### **Less parts, less installation time**

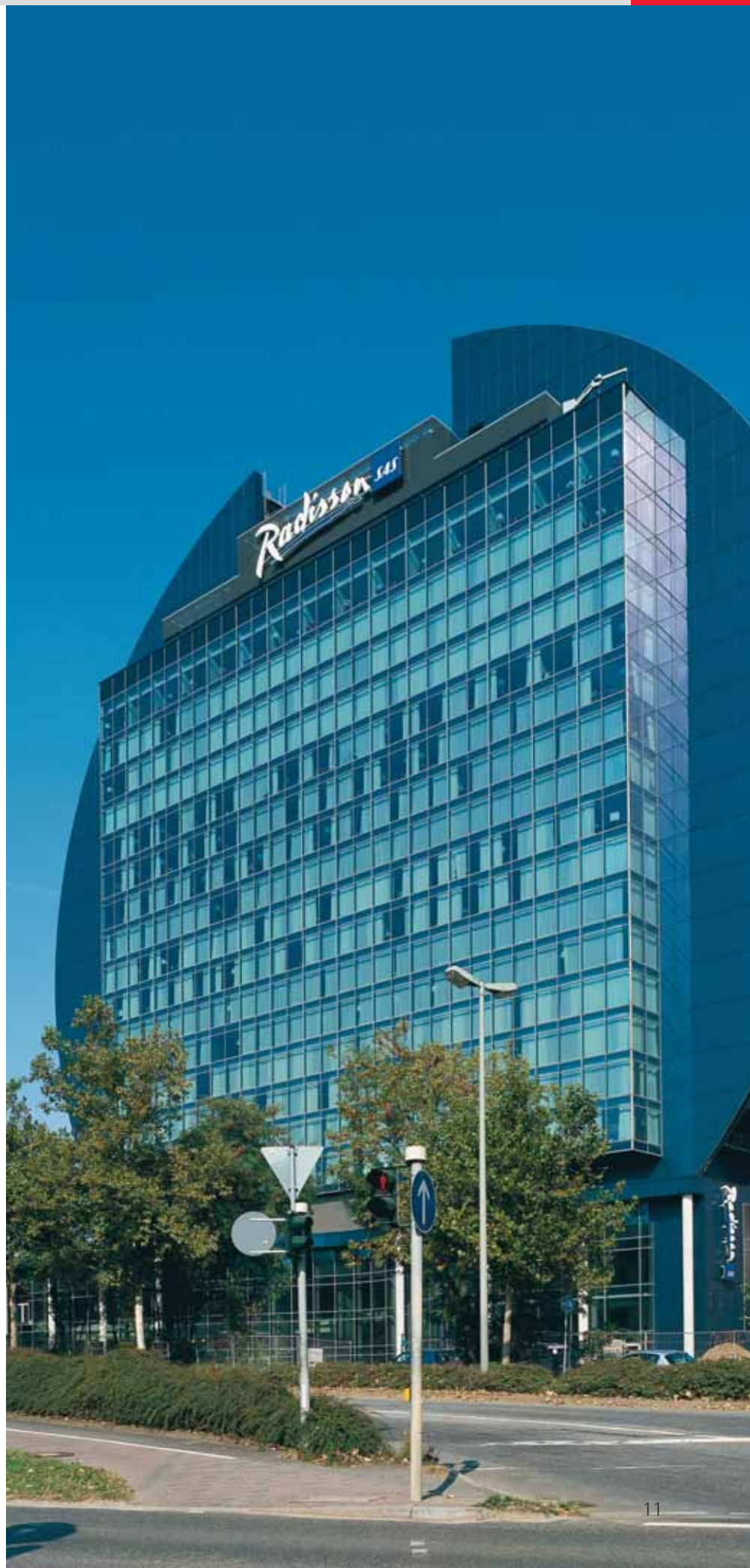
All hinge-side components are clamped on the frame and sash; simplifying installation and reducing installation times. Profil-specific clamp-strips, clamping-blocks and a piercing screw ensure a solid interlocking and positive fitting connection. In addition to that there is the convenient adjustment: Roto AluVision Designo can be installed and adjusted with max. three tools. The adjustment levels are clearly marked.

### **Perfect for all opening types.**

All hardware versions are possible with Roto AluVision Designo: Tilt&Turn, Turn-Only, Tilt-Only, French windows and Tilt-First with sash weights of up to maximum 150 kg.

### **An overview of your advantages with Roto AluVision Designo:**

- Optional load transfer for heavy sash weights up to 150 kg
- Solid interlocking and positive fitting clamping of the hinge side
- Comfortable adjustment possibilities thanks to lateral and vertical adjustment of the sash
- Maximum tightness of the sash seal for very high and narrow sashes thanks to connectable rebate hinge
- RotoSil Nano surface coating as standard for optimum surface and corrosion protection
- Building-specific special solutions possible (e. g. ventilation flaps)



## Roto NT

The world's biggest selling Tilt&Turn hardware system for windows and balcony doors



### **Now also for aluminium profiles with 16 mm hardware groove**

We also offer Roto NT, the world's biggest selling Tilt&Turn hardware system, for aluminium profiles with a 16 mm hardware groove: suitable for virtually all opening types and compatible to the NT modular system.

Completely concealed hinges emphasise the modern, clear appearance of the aluminium window

and also make window cleaning easier. And with regard to the subjects of convenience and safety as well, the new system offers many strong arguments in favour of purchasing it.

Window and system producers benefit from the unique clamping mechanism which considerably reduces the required installation effort – and saves time and money.

### **Outstanding solution for heavy sashes**

Large window sizes, heat and sound reduction glazing are in greater demand than ever before. These kinds of windows are heavy and sash weights of over 100 kg are almost the rule. Only two additional special components (also invisible from the outside), are enough to achieve the highest stability in conjunction with the standard hardware – for sash weights up to 150 kg.

### Simply profitable: Clamping instead of screwing

The unique clamping mechanism of the Roto NT Designo Alu makes screws virtually superfluous. Frame parts and the clampable hinge side are simply clamped into the frame groove – completely independently of the corner connector geometry of the profile frame.

### Advantages of the concealed Roto NT Designo Alu hinge side at a glance

- Unique clamping mechanism
- Simple and quick installation thanks to full integration into the Roto NT modular system
- With just two additional concealed components for load transfer, the Roto NT Designo standard hardware can be easily upgraded to a sash weight of up to 150 kg
- Tilt restrictor and anti-slam device
- Comfortable adjustment possibilities thanks to three-dimensional window sash adjustment
- Maximum window opening angle of 100°

### Greater efficiency with modular design

With Roto NT Designo Alu the hinge-side components are perfectly matched to the Roto NT modular system. Your benefits: a broad range of possible combinations, fast, flexible installation, minimal component diversity and therefore reduced production and storage costs.



### Strong standard: flexible, secure and a good value

In addition to the design-oriented Roto NT Designo Alu product line, we now also offer an inexpensive basic version of the system for aluminium profiles with a 16 mm hardware groove. The hardware components on the visible hinge side can be screwed on, enable an opening width of up to 180° and are excellently suited for sash weights up to 100 kg. Cover caps are also available in various colours to match the respective frame colour.

# Roto Patio

## Hardware systems for large sliding windows and doors

### Perfect for large and heavy sashes

The trend is to energy-saving multiple glazings and room-high elements, which place due to their weight special requirements on the hardware.

Especially for aluminium profiles, Roto offers the suitable solution. Tilt and slide even heavy sliding elements conveniently and in a space-saving manner with Patio 160 S (automatic) or 200 Z (positive controlled) – quite easy and without excessive force. Patio Lift is our new hardware for Lift&Slide doors up to 300 kg and Patio 6080 opens Fold&Slide doors to its full width – providing generous access to bistros, shops, conference rooms or terraces.



**Patio Lift – even heavy balcony doors can conveniently be slid over to the side.**  
In this way, optimum room use is easy

### Patio 6080 – the advantages at a glance

- Fold&Slide hardware without obtrusive threshold
- Particularly smooth running for a high degree of operating convenience
- Attractive design
- Tilt&Turn sash can be integrated for optimal room ventilation

### New: Patio Lift – standard hardware for large Lift&Slide doors up to 300 kg

Patio Lift is the new hardware for large sliding doors up to 300 kg. It impresses by offering the following advantages:

- Convenient operation due to functional components perfectly attuned with each other

- Quiet and smooth operation due to low-noise bogies and ball-bearing rollers
- High durability due to the use of extremely robust high-quality materials
- Easy integration of night ventilation and profile-cylinder installation
- Diagrams A, C and D possible
- Info clip for individual customer logo

## Roto In-line Sliding

### Hardware systems for simple sliding windows and doors

#### All for a high level of convenience and optimum use of space

Sliding hardware allows optimum room use and impresses with its comfortable, practical operation. Roto In-line Sliding offers outstanding solutions for many different safety, comfort and design needs – for sash weights up to 200 kg.

#### Long-lasting and comfortable – the new generation of espagnolettes

Roto is the only hardware manufacturer to offer multi-point locking systems with profiled faceplates that are particularly dimensionally stable. This reduces the bending of the components and guarantees a long service life and easy use thanks to the wear-free travel of the locking points.

The RotoSil Nano surface offers maximum corrosion protection. And the centre fixing of the single-action or reverse-action espagnolettes ensures easy installation.

#### Large variety of products for individual requirements

Whether mushroom cams, hooks or claws, single-action or reverse-action, lockable or not – choose the In-line Sliding multi-point locking system that best suits your security requirements. All our espagnolettes are versatile and can be effortlessly integrated in an extremely broad range of aluminium profiles using adapters.

#### Bogies for every need

Robust bogies, mostly fitted with ball bearings, guarantee smooth and quiet running of the sashes – making them the basis of elegant, easy-acting sliding elements.

#### New handle family for sliding systems

Sliding handles in elegant RotoLine design incorporate future-oriented technology and aesthetics. Pre-assembled components enable easy and rapid installation. Apart from the high level of user friendliness,

the new handle family convinces with its large diversity of variations: Different interior and exterior handles are available in many attractive colours and can be combined as desired.



#### In-line Sliding bogies 200 kg

Ball-bearing rollers ensure smooth movement – even with high sash weights of up to 200 kg



#### Innovations with profiled faceplate

The new Roto multi-point locking system ensures permanent smooth running and durability



## Roto AluVision O

### Intelligent solutions for outward opening windows

#### **Convenient and space saving**

Outward opening “Side-Hung” or “Top-Hung” windows are highly regarded worldwide as they provide several system-related advantages: The sash doesn’t protrude into the living area. Due to the slimline profiles, they allow a lot of daylight into rooms.

And during natural wind-created gasket-compression, the windows lock particularly air and water tight.

#### **All window formats and window types**

“Top-Hung” outward opening solutions with which the window sash is folded outward are available from the Roto AluVision O product range

with sash weights of up to 180 kg. With “Side-Hung” solutions which turn outward, sash weights up to 63 kg can be realised. Both window types can be conveniently operated with one hand.

Whether slimline windows, small Side-Hung or Top-Hung windows – Roto has the suitable solution for every application.



### Great variety of central locking options for aluminium windows

The security demands all over the world are different. Roto for this reason offers security in accordance with the customers' wishes for outward opening windows. This way locking systems with corner drives can be integrated if required, thus ensuring an improved gasket-compression and better protection against burglary attempts with additional lateral locking points.



### Your advantages at a glance:

- The window sash doesn't jut into the living area
- Particularly rain and windproof
- Plenty of daylight thanks to the slimline window profiles
- Convenient to open and close
- Selectable security levels as required
- Applicable in most different window formats



**Friction hinges**  
Various sizes and specifications in stainless-steel version



**AluVision O Top-Hung solution**  
Optimal ventilation possibility due to large opening angle

# Roto Door

## Expertise and technological concepts for doors



### Convincing arguments

Roto is the experienced specialist for door locks, thresholds, hinges and all other components which securely connect the sash and frame of a door to each other.

### Robust, attractive, long-lasting

With the DoorSafe lock generation 600, we also supply a complete hardware range in the field of multiple locks for main doors: corrosion-resistant, visually attractive and extremely resistant – ideal for high quality aluminium frames.

### The strong combination

The Roto DoorSafe combination lock is synonymous with a perfect fit; a strong espagnolette that's simple to use with little force, and of course a strong, durable lock. This is provided by a bolt and power wedge that together deliver an impressive hold.

### Safe escape and panic doors

Roto DoorSafe now also offers reliable locks for panic doors (as per DIN EN 1125) and emergency exits (as per DIN EN 179).

### A strong hold for your doors!

DoorLine main door hinges guarantee exact door leaf fitting in the frame thanks to the 3D adjustment, therefore ensuring optimal gasket-compression.



## DoorSafe Eneo C/CC

### Electro-mechanical multi-point locking systems for doors

#### Roto – we open doors

There are situations in which you don't have any hands free or you're simply too comfortable to mess around opening a locked main door with the key. So it's good if the door is fitted with Roto DoorSafe Eneo C/CC. That's because with this convenient electromechanical multi-point locking system, there's absolutely no need for a key to open the door. And when the door closes again after you've entered, the lock will lock again automatically if you want it to – electrically, securely and pleasantly quietly.

#### Custom-made security

With the day/night switchover function, you can decide for yourself whether the door should lock automatically after it drops into the lock. The door locks in Night mode, but

remains unlocked in Day mode. With Roto DoorSafe Eneo C, a locked door can be opened from the inside via the pushbutton, and an unlocked door can be opened with the lever handle.

With Eneo CC incorporating the comfort opening function, the door can be opened using the lever handle whether it's locked or unlocked. Roto DoorSafe Eneo C/CC locks and unlocks very quickly and is optionally equipped with two additional locking points, comprised of bolts, power wedges or combination locks (bolt plus power wedge).

Together with the particularly stable convenient striker strip, these combination locks provide a high degree of protection against break-ins. The system works reliably and completely maintenance-free.



**Roto DoorSafe hand-held radio transmitter**  
Compact design with a switch: small, elegant and easy to use



**Roto DoorSafe Fingerscan**  
for comfortable, quick door opening: saves up to 150 fingerprints

#### A free choice of opening type

Eneo C/CC can be combined and opened with a PIN code keypad, fingerscan and Bluetooth unit. All systems have identical installation dimensions and plug-in connections, and can thus be mounted flexibly and replaced easily in the event of a system change.

The three systems also can be optionally combined with the hand-held radio transmitter, since the radio receiver is already integrated in the drive unit.



Creates inner values

**Roto Frank AG**  
**Window and door technology**

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**From a single source: The optimum hardware system to meet all challenges**

**Roto AluVision** | Comprehensive hardware solutions for aluminium windows and doors

**Roto Door** | The attuned range of components for permanently tight shutting doors

**Roto NT** | The world's biggest selling Tilt&Turn hardware system for windows and balcony doors

**Roto Patio** | Hardware systems for large sliding windows and doors